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A Study to Assess the Effectiveness of Information Booklet Knowledge Regarding Organic Food and its Benefit in Promotion of Health among People in Selected Rural Areas of Jaipur

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INTRODUCTION

use chemicals and are based on working in harmony with nature. There is already a lot of evidence that organic farming improves the environment, soil, and groundwater, and it is also thought to improve crop quality. The organic animal and plant production regulations are extremely stringent, and compliance should result in high product quality.

A similar situation concerns organic food processing. Although currently conventional processing allows several hundreds of different types of food additives (colorings, fixing agents, improvers, etc.), organic processing allows only several dozen such additives, mainly natural substances. This creates challenges for organic food processors as they have to preserve product durability without the use of chemical agents. However, this is fundamentally important for consumers who are increasingly searching for healthy food.1

Organic production methods are regulated in Europe by Council Regulation (EC) No. 834/2011 of June 28, 2011 on organic production and labelling of organic products, repealing Regulation (EEC) No. 2092/91. The Commission Regulation (EC) No. 889/2008 as of September 5, 2016 established particular principles of implementing the Regulation (EC) No. 834/2011 on organic production and labelling of organic products with regard to organic production, labelling and control.2

A food product is considered organic when it has been produced under the guidelines of Regulation No. 834/2011 or both the guidelines of the Regulation and the directives of various organic farming associations (e.g. IFOAM).

Under Regulation No. 834/2011, an organic product must be labelled with an identification number (code) and the European organic farming logo (the number and 6 Quality of Organic vs. Conventional Food and Effects on Health logo can be used after a certification process). The Regulation declares that the aim of organic production is to receive high quality food products, however, the Regulation does not specify a definition of high quality. Law-makers probably assume that a product which has been obtained under controlled conditions – in accordance with the guidelines of the Regulation, i.e. without chemical agents for plant protection and artificial mineral fertilizers, but using natural animal fertilizers and composts as well as crop rotation, and with the ban on using genetically modified organisms and ionizing radiation – must be a high quality product.

Currently, organic food is becoming more and more popular all over the world, and the European organic products market has been developing very intensively since the early ’90s. According to the report on organic farming, prepared by the Swiss FiBL – the Research Institute of Organic Agriculture and IFOAM – International Federation of Organic Agriculture Movements (FiBL and IFOAM, 2011) in 2009, the value of the European organic food market amounted to 18.4 billion (Willer, 2011) and still has a vast and unused potential. An unquestionable leader in the organic food market is Germany with the outlet of 5.8 billion Euros. The organic food market is very well-developed in France, the UK and Italy as well (Schaack et al., 2011).3

With respect to chemical differences in the composition of organically grown food compared with conventionally grown food, studies have examined differences in nutrients, antinutrients, and pesticide residues. These studies generally suffer from confounding variables, and are difficult to generalize due to differences in the tests that were done, the methods of testing, and because the vagaries of agriculture affect the chemical composition of food; these variables include variations in weather (season to season as well as place to place); crop treatments (fertilizer, pesticide, etc.); soil composition; the cultivar used, and in the case of meat and dairy products, the parallel variables in animal production.

Treatment of the foodstuffs after initial gathering (whether milk is pasteurized or raw), the length of time between harvest and analysis, as well as conditions of transport and storage, also affect the chemical composition of a given item of food. Additionally, there is evidence that organic produce is drier than conventionally grown produce; a higher content in any chemical category may be explained by higher concentration rather than in absolute amounts.4

The market is developed by consumers who actively search for organic food. According to studies, the people who buy organic food are mainly women, families with children and the elderly. Due to a particular physiological condition and the associated awareness of the significance of healthcare, these groups are primarily connected by their concern for their own or their relatives' health.

The reasons why consumers are interested in purchasing organic products were also mentioned by Hughner et al. Concern for one's health, i.e. the conviction that organic products are healthier and safer than conventional ones, is cited as one of the primary motivators by many organic food consumers, both "regular" and "occasional" alike. Better taste (sensory properties), concern for the natural environment, increased food safety, animal welfare, and social factors (supporting local market and traditions) were also mentioned by consumers in the survey.

To sum-up, consumers prefer organic food for its greater nutritional value, its better taste, its safety for health, and because its production does not endanger the environment.5

The minimum number of impurities (such as pesticide residues, nitrates, heavy metals, and so on) at the maximum number of valuable components (vitamins, mineral elements, proteins, and so on) in a food can be interpreted as its nutritional value. Many studies of organic plant raw materials indicate that they contain less nitrates and pesticide residues, but more dry matter, vitamin C, secondary substances, total sugars, certain mineral components and essential amino acids, but less β-carotene.6

A 2016 systematic review and meta-analysis found that organic meat had comparable or slightly lower levels of saturated fat and monounsaturated fat as conventional meat, but higher levels of both overall and n-3 polyunsaturated fatty acids.6363 Another meta-analysis published the same year found no significant differences in levels of saturated and monounsaturated fat between organic and conventional milk, but significantly higher levels of overall and n-3 polyunsaturated fatty acids in organic milk than in conventional milk.

NEED FOR THE STUDY

The demand for organically grown food has increased in recent years as consumers' concerns about food-related health and environmental issues have grown. There is a discrepancy between actual prices and the prices that consumers are willing to pay for organic food due to higher production costs and retailer margins. In this article, consumer willingness to pay for organic food in two Spanish regions is analyzed. Customers' lifestyles are taken into account when segmenting markets in both regions. According to the findings, consumers who are concerned about a healthy diet and the degradation of the environment are the most likely to purchase organic food and are willing to pay a high premium for it. Because organic meat, fruits, and vegetables command a higher price tag, consumers are more likely to look for them in perishable goods.8

In most developed nations, food consumption has reached a saturation point in terms of quantity, and consumers now have a wider range of food choices than ever before. Consumption becomes more diverse as a result. Distribution channels, marketing strategies, diversification strategies, and food quality are becoming increasingly important in this saturated market. Additionally, consumers' concerns regarding food quality, nutrition, and health have increased. The increasing importance of health and the impact that food production has on the environment and consumer food choice is well documented in the literature.9

The objective of this study is to estimate the willingness of different consumer segments to pay for organic products, to assess alternative price strategies carried out by producers. From other studies, it was expected that consumers would be willing to pay a premium for organic products. This expectation is

based on the idea that these products are healthier, and may diminish negative environmental effects associated with conventional agricultural production. To expand the scope of our results, in this study we have considered a wide range of food products: (1) vegetables, (2) potatoes, (3) cereals, (4) fruits, (5) eggs, (6) chicken, and (7) red meat.10

The data used here come from a survey conducted in July through August 2017 in two Spanish regions: Navarra and Madrid. Navarra was selected not only because it is one of the most important producing regions in Spain, but also because it produces a wide variety of organic food products. Madrid is one of the most important regions, together with Catalun˜a, in terms of organic food products consumption. Samples in both regions were selected using a stratified random sample of food buyers on the basis of age and district of residence. Four hundred respondents were randomly selected and personally interviewed at home in each region. Respondents were the main purchasers of food products within the household. The first question in the questionnaire was respondents' degree of knowledge of what an organic product was. If the respondent did not know anything about them, he or she was not interviewed. So only respondents with at least some knowledge of organic products were considered. Only 10% of respondents in Navarra and 5% in Madrid claimed to buy organic products regularly, while another 55% in Navarra and 42% in Madrid were occasional buyers. These percentages are similar to those obtained in other studies.11

Chouichom et al. (2013) Bangkok the study was investigated the impact of socioeconomic and demographic variables on organic food purchase behavior in Bangkok. Data was collected from 848 customers using convenient sampling. Since nonrandom sampling was used, the representativeness of the sample was insured by collecting data from customers who shop organic products from supermarkets, as well as from shops in the outskirts of Bangkok. Respondents were divided into three categories: those who have never heard of organic food, those who have heard but never purchased organic food, and those who have both heard and experienced consuming organic food. Then, contingency tables and chi-square tests were used to establish socioeconomic and demographic differences between the three types of consumers.12

Dettmann et al. (2013) United States (U.S.) a study was considered the demographic portrayal of organic vegetable consumption within the United States (U.S.) found that the organic market sector in the U.S. is one of the fastest growing food sectors, with growth rates in organic food sales averaging 18% per year between 1998 and 2013. The largest segment within the organic market was found to be fresh produce, comprising 36% of retail sales in 2013. The study applied a logistic model framework and a Heckman two-stage model to depict the relationship of organic vegetable expenditures as a ratio of total household vegetable expenditures. The authors found that race, education level, and household income consistently influenced the consumer's decision to purchase organic vegetables.13

Schab and Trinh in (2014) Spain a study was conducted a comprehensive meta-analysis of the medical literature concluded that artificial dyes affect children´s behaviour.

Out of references, 15 unique double-blinded placebo-controlled trials evaluating the behavioural effects of artificial food colorings among 219 subjects with diagnosis of hyperactivity have been graded, were identified. Schab and Trinh (2014) found that previous science shows that children's behaviour improves when artificial colorings are removed from their diet and worsens when it is added to their diets.14

Mukherjee A. et al. (2018) India: A primary survey of companies engaged in organic food business in India. The Government of India has come up with policy initiatives to promote organic food for domestic market and exports. Such measures are expected to increase investment in organic food manufacturing and retailing, and create employment. Indian entrepreneurs have responded positively to these initiatives and a number of start-ups have come up in this sector. Many conventional food manufacturers, retailers, and exporters have diversified their businesses to include organic food products. India's trade in organic food products has also increased.15

A study conducted by the Consumer Unity and Trust Society (CUTS) highlights key hindrances to organic farming. Despite the government's constant efforts to promote organic farming, only 16.3 per cent farmers of Rajasthan use organic inputs, while fear of less production and unavailability of organic inputs form the major hindrances to the chemical-ridden farming.16

Sharma N. et al. (2018), a study was conducted in the market of Udaipur city to know the present condition of organic food market. Data were collected with the help of structured and duly pre tested interview schedule. Result reveals that there were four main shops those were majorly selling organic food products range. The main aim for this study is to explore present market scenario and the major factors

responsible for future growth of the organic food products business in Udaipur city. Since, there is a tremendous change in the last few years in our country of people consuming food habit. Now a day's people are more aware and health conscious therefore they prompt to go for safe and healthy food products. So, this factor will surely help in flourishing the business at large scale.17

A study published by the National Research Council in 1993 determined that for infants and children, the major source of exposure to pesticides is through diet. A study published in 2006 by Lu et al. measured the level of organophosphorus pesticide exposure in 23 school children before and after replacing their diet with organic food. In this study it was found that levels of organophosphorus pesticide exposure dropped from negligible levels to undetectable levels when the children switched to an organic diet, the authors presented this reduction as a significant reduction in risk. The conclusions presented in Lu et al. were criticized in the literature as a case of bad scientific communication.18

The genotoxicity of 39 commonly used food additives was determined. Dyes, color-fixatives and preservatives, antioxidants and sweeteners were tested on male mice. (Sasaki et al., 2012).19

In conventional food processing several hundreds of different synthetic additives are permitted for use, while in organic food processing only around 40 natural substances are allowed.

OBJECTIVES

The research objective establishes the general direction of the inquiry for researcher. The objectives of the study clearly explain each and every aspect of the study and thereby provides a better idea to the researcher of what is intended to find out. The objectives include obtaining answers to research questions or testing research hypotheses but may also encompass some broader aims like developing recommendations for changes to nursing practice based on the study results.

This chapter deals with the main objectives of the study, and the conceptual framework on which the study is based.

OBJECTIVES

1. To assess the pre-test knowledge of people regarding the organic food and its health benefits among people of selected rural area of Jaipur.
2. To prepare and administered the information booklet regarding the organic food and its health benefits among people of selected rural area of Jaipur.
3. To assess the post-test knowledge regarding the organic food and its health benefits among people of selected rural area of Jaipur.
4. To assess the effectiveness of information booklet on knowledge regarding the organic food and its health benefits among people selected rural area of Jaipur by pre-test and post-test knowledge score.
5. To find out association between pre-test knowledge with selected demographic variables.

OPERATIONAL DEFINITIONS

- **Assess:**

In this study, it refers to assess mean judging the status of pre-test and post-test knowledge of people on organic food and its health benefits.

- **Effectiveness:**

In this study, it refers to effectiveness refers to the extent to which the booklet has achieved the desired objectives, that means improvement of knowledge scores among people about the organic food and its health benefits.

- **Information booklet:**

In this study, it refers to booklet is a learning package planned and benefit of organic foods provided to the people with an aim to facilitate self-learning.

- **Knowledge:**

In this study, it refers to the level of understanding of people regarding organic food and its health benefits as it is measured by structured interview schedule.

- **Benefit:**

In this study, it refers to receive an advantage from organic foods.

- **Organic food:**

In this study, it refers to organic food is the one which produced by methods that comply with the standards of organic farming.

- **People:**

In this study, it refers to people is the members of a particular area, community, or ethnic group.

- **Rural areas:**

In this study, it refers to a rural area is an open swath of land that has few homes or other buildings, and not very many people.

VARIABLES

Research variables are the concepts of various levels of abstractions that are entered manipulated and collected in a study.

- **Independent Variables:**

In this study independent variable is the presumed causes for the resulting effects on the dependent

variables. The booklet on organic food and its health benefits.

- **Dependent Variables:**

In this study dependent variable is the variable, the researcher is interested in understanding, expressing or predicting. People knowledge about organic food and its health benefits.

- **Demographical variable:**

In this study demographical variable age in year, educational status, religion, family type, occupation, family income, previous knowledge, If yes, then source of information regarding organic food and its health benefits.

ASSUMPTIONS

The study assumes that:

- People will have some knowledge regarding organic food and its health benefits.
- Knowledge may vary from person to person.

DELIMITATIONS

- This study delimited to the 100 people of selected rural area of Jaipur.
- This study delimited to educated/ literate rural people who are available during the study period.

HYPOTHESES

All hypotheses will be tested at 0.05 level of significance.

- **H1:** There will be significant mean different between pretest and post-test knowledge score.
- **H2:** There will be significant association between pre-test knowledge score and selected demographic variables.

RESEARCH APPROACH

Research approach is a systemic, controlled empirical and critical investigation of natural phenomena guided by theory and hypotheses about the presumption relations among the phenomena.

Research approach refers to the approach or the methodology that has been adopted to conduct the research. It basically involves the selection of research questions and the selection of appropriate research method such as primary research, secondary research etc. In the present study an evaluative approach was used to assess the effectiveness of information booklet on organic food and its health benefit in promotion of health among people of selected rural areas of Jaipur.

RESEARCH DESIGN

The term research design refers to the investigators overall plan for obtaining answer to the research questions or for testing the research hypothesis. Research design spells out the strategies that the researcher adopts to develop information that is accurate and interpretable.

The research design is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximal information with minimal expenditure of effort, time and money.

The research design selected for this study was pre-experimental one group pre-test post-test design. In one group pre-test post-test design the investigator introduce base measure before and after planned exposure, which is depicted in O1 and O2 respectively. In this study the base measure was questionnaire on organic food and its health benefit in promotion of health among people. The administration of information booklet is depicted as 'X'.

THE STUDY DESIGN AS FOLLOWS:

1. **O1:** The pre-test, carried out for the assessment of the knowledge of people regarding organic food and its health benefit using structured knowledge questionnaire on day one.
2. **X:** Administration of information booklet to the people.
3. **O2:** The post-test, carried out for the assessment of the knowledge of people regarding organic food and its health benefit factors by administering the same structured knowledge questionnaire after the administration of information booklet.

SETTING OF THE STUDY

The setting is the place or type of surroundings where something is positioned or where an event takes place. The setting is where the population or the portion of that is being studied, is located and where the study is carried out.

The pre-testing, reliability of tool and pilot study was conducted at Bagru Jaipur.

The main study was conducted at Rampura Uti Jaipur.

VARIABLES

In this study independent variable is the presumed causes for the resulting effects on the dependent variables. The booklet on organic food and its health benefits.

INDEPENDENT VARIABLE

In this study dependent variable is the variable, the researcher is interested in understanding, expressing or predicting. People knowledge about organic food and its health benefits.

DEPENDENT VARIABLE

Dependent variable is the variable, the researcher is interested in understanding, expressing or predicting. People knowledge about organic food and its health benefits.

DEMOGRAPHICAL VARIABLE

In this study demographical variable age in year, educational status, religion, family type, occupation, family income, previous knowledge, If yes, then source of information regarding organic food and its health benefits.

POPULATION

The term population refers to the aggregate or totality of all the objects, subjects or members that confirm to a set of specifications. In the present study the population comprised of people selected rural areas of Jaipur.

SAMPLE

Sample refers to the subset of a population selected to participate in a research study. In the present study, the samples were 100 people coming at Rampura Uti Jaipur, during the time of data collection.

SAMPLING TECHNIQUE

Nonprobability sampling involves deliberate selection of particular units of the population for constituting a sample. Convenience sampling is a type of non-probability sampling in which the population elements are selected for inclusion in the sample based on the ease of access. Convenience sampling entails using the most conveniently available people as study participants. Convenience sampling was used to collect data from the samples.

SAMPLE SIZE

In this study the sample size was 100 people coming at Rampura Uti Jaipur.

SAMPLING CRITERIA

INCLUSION CRITERIA

People who are:

- Willing to participate in the regular study.
- Available at the time of data collection.

EXCLUSION CRITERIA

- People who are not:
- Available during the period of data collection.
- Not able to co-operate throughout the period of study.

RESULT

The description of the result is the heart of a research project. It is the communication of measurements, and derivation gathered by the research worker. For achieving the results, the collection of data must be processed and analyzed in an orderly coherent fashion. Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis can be tested.

Table–1 FREQUENCY & PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES N=100

Socio-demographic variable	Frequency	% of respondents
Age group		
21-25 years	06	06
26-30 years	20	20
31-35 years	58	58
Above 36 years	16	16
Educational Qualification		
Illiterate	09	09
Primary	15	15
Secondary	21	21
Sen. Secondary	55	55
Religion		
Hindu	63	63
Muslims	21	21
Christian	11	11
Others	05	05
Family type		
Nuclear family	63	63
Joint family	15	15
Extended family	22	22

Occupation		
Private	57	57
Govt.	23	23
Farmer	09	09
Professional	11	11
Family income		
10,000-20,000/-month	13	13
20,001-30,000/-month	38	38
30,001-40,000/-month	21	21
More than 40000/-month	28	28
Previous Knowledge regarding Surrogacy		
Yes	17	17
No	83	83

A. AGE WISE CLASSIFICATION OF RESPONDENTS

S. No.	VARIABLE		FREQUENCY	PERCENTAGE
1	Age	21-25 years	06	06
		26-30 years	20	20
		31-35 years	58	58
		More than 36 years	16	16

B. EDUCATIONAL QUALIFICATION WISE CLASSIFICATION OF RESPONDENTS

S. No.	VARIABLE		FREQUENCY	PERCENTAGE
2.	Educational qualification	Illiterate	09	09
		Primary	15	15
		Secondary	21	21
		Sen. secondary	55	55

C. RELIGION WISE CLASSIFICATION OF RESPONDENTS

S. NO.	VARIABLE		FREQUENCY	PERCENTAGE
3	Religion	Hindu	63	63
		Muslims	21	21
		Christian	11	11
		Others	05	05

D. FAMILY TYPE WISE CLASSIFICATION OF RESPONDENTS

S. NO.	VARIABLE		FREQUENCY	PERCENTAGE
4	Family type	Nuclear family	63	63
		Joint family	15	15
		Extended family	22	22

E. OCCUPATION WISE CLASSIFICATION OF RESPONDENTS

S. NO.	VARIABLE		FREQUENCY	PERCENTAGE
5.	Occupation	Private	57	57
		Govt.	23	23
		Farmer	09	09
		Professional	11	11

F. FAMILY INCOME WISE CLASSIFICATION OF RESPONDENTS

S. NO.	VARIABLE		FREQUENCY	PERCENTAGE
5	Family income	10000-20000	13	13
		20001-30000	38	38
		30001-40000	21	21
		>40001	28	28

G. PRIOR EDUCATION WISE CLASSIFICATION OF RESPONDENTS

S. NO.	VARIABLE		FREQUENCY	PERCENTAGE
6.	Any Prior Education	YES	17	17
		NO	83	83

Table–2 FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRE-TEST LEVEL OF KNOWLEDGE N=100

Level of knowledge	Max Score	In-adequate		Moderate		Adequate	
		F	%	F	%	F	%
Knowledge about Organic food	30	69	69	24	24	07	07

Table-3 FREQUENCY AND PERCENTAGE DISTRIBUTION OF POST TEST LEVEL OF KNOWLEDGE N=100

Level of knowledge	Max Score	In-adequate		Moderate		Adequate	
		F	%	F	%	F	%
Knowledge about Organic food	30	32	32	46	46	22	22

Table-4 COMPARISON OF PRE-TEST AND POST-TEST LEVEL OF KNOWLEDGE N= 100

Sr. No.	Level of knowledge	Pre-test		Post-test	
		F	%	F	%
1	In-adequate	69	69	32	32
2	Moderate	24	24	46	46
3	Adequate	07	07	22	22
	Total	100	100	100	100

Table:5 MEAN, S.D., RANGE, MEANS CORE PERCENTAGE OF KNOWLEDGE SCORE BEFORE INFORMATION BOOKLET N=100

S. No.	Aspect of Knowledge	Max possible score	Mean	SD	Range	Mean%
1.	Knowledge about organic food	30	14.05	4.459	19	46.83
	Overall	30	14.05	4.459	19	46.83

Table:6 MEAN, S.D., RANGE, MEANSCOREPERCENTAGEOF KNOWLEDGES CORE AFTER INFORMATION BOOKLET N=100

S. No.	Aspect of Knowledge	Max possible score	Mean	SD	Range	Mean%
1	Knowledge about organic food	30	19.23	4.846	18	64.10
	Overall	30	19.23	4.846	18	64.10

Table-7 ASSESSMENT OF EFFECTIVENESS OF INFORMATION BOOKLET BY COMPARISON OF PRE AND POST TEST KNOWLEDGE SCORE N=100

Aspect of knowledge	Max. Score	Pre-test				Post-test				T Value
		Mean	SD	Range	Mean %	Mean	SD	Range	Mean %	
Knowledge about organic food	30	14.05	4.459	19	46.83	19.23	4.846	18	64.10	1.959
Overall	30	14.05	4.459	19	46.83	19.23	4.846	18	64.10	1.959

Table-8 SIGNIFICANCEDIFFERENCEBETWEENPRETESTANDPOST TEST KNOWLEDGE SCORE N=100

S. No.	Score	Mean	S. D	Std. Error	Mean Difference	DF	Calculated "t" value	Tabulate value
1.	Pre-Test	14.05	4.459	0.446	5.18	99	1.959	1.660
2.	Post-Test	19.23	4.846	0.485				

Table-9.1 ASSOCIATIONBETWEENPOST-TESTLEVELSOF KNOWLEDGE WITH AGE

S. No.	Level of Knowledge			Total	D.F.	Chi Square	Result
Age in Year	Inadequate	Moderate	Adequate				
21-25 years	05	01	00	**06**	6	2.968	Not Sig.
%	83.33	16.67	00	**100**			
26-30 years	15	04	01	**20**			
%	75.00	20.00	05.00	**100**			
31-35 years	40	13	05	**58**			
%	68.96	22.41	8.63	**100**			
Above 36 years	09	06	01	**16**			
%	56.25	37.50	6.25	**100**			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

Table-9.2 ASSOCIATION BETWEEN POST TESTKNOWLEDGEWITH EDUCATIONAL QUALIFICATION

S. No.	Level of Knowledge			Total	D.F.	Chi Square	Result
Family Type	Inadequate	Moderate	Adequate				
Illiterate	5	3	1	09	6	10.568	Not Sig.
%	55.56	33.33	11.11	100			
Primary	8	7	0	15			
%	53.33	46.67	00	100			
Secondary	13	7	1	21			
%	61.90	33.33	4.77	100			
Sen. Secondary	43	7	5	55			
%	78.18	12.73	9.09	100			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

Table-9.3 ASSOCIATIONBETWEENPOSTTESTLEVELSOFKNOWLEDGE WITH RELIGION

S. No.	Level of Knowledge			Total	Df	Chi Square	Result
Education	Inadequate	Moderate	Adequate				
Hindu	46	15	02	**63**	6	8.388	Not Sig.
%	73.02	23.80	3.17	**100**			
Muslims	12	05	04	**21**			
%	57.15	23.80	19.05	**100**			
Christian	08	03	00	**11**			
%	72.72	27.28	00	**100**			
Others	03	01	01	**05**			
%	60.00	20.00	20.00	**100**			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

Table-9.4 ASSOCIATIONBETWEENPOSTTESTLEVELSOF KNOWLEDGE WITH FAMILY TYPE

S. No.	Level of Knowledge			Total	df	Chi Square	Result
Education	Inadequate	Moderate	Adequate				
Nuclear family	47	13	3	**63**	4	3.553	Not Sig.
%	74.60	20.63	4.77	**100**			
Joint family	9	5	1	**15**			
%	60.00	33.33	6.67	**100**			
Extended family	13	6	3	**22**			
%	59.09	27.27	13.64	**100**			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

Table-9.5 ASSOCIATIONBETWEENPOSTTESTLEVELSOFKNOWLEDGE WITH OCCUPATION

S. No.	Level of Knowledge			Total	D.F.	Chi square	Result
Father's occupation	Inadequate	Moderate	Adequate				
Private	39	17	1	**57**	6	8.768	Not Sig.
%	68.42	29.82	1.76	**100**			
Govt.	17	3	3	**23**			
%	73.92	13.04	13.04	**100**			
Farmer	7	1	1	**09**			
%	77.78	11.11	11.11	**100**			
Professional	6	3	2	**11**			
%	54.54	27.27	18.19	**100**			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

Table-9.6 ASSOCIATIONBETWEENPOSTTESTLEVELSOF KNOWLEDGE WITH FAMILY INCOME

S. No.	Level of Knowledge			Total	D.F.	Chi square	Result
Family Income	Inadequate	Moderate	Adequate				
10000-20000	9	3	1	**13**	6	11.441	Not Sig.
%	69.24	23.07	7.69	**100**			
20001-30000	23	13	2	**38**			
%	60.52	34.21	5.26	**100**			
30001-40000	20	1	0	**21**			
%	95.23	4.77	00	**100**			
>40000	17	7	4	**28**			
%	60.71	25.00	14.29	**100**			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

Table-9.7 ASSOCIATION BETWEEN POST TEST LEVELS OF KNOWLEDGE WITH PRIOR EDUCATION ABOUT ORGANIC FOOD

S. No.	Level of Knowledge			Total	D.F.	Chi Square	Result
Prior education	Inadequate	Moderate	Adequate				
YES	8	5	4	**17**	2	9.673	Sig.
%	47.05	29.41	23.52	**100**			
NO	61	19	3	**83**			
%	73.49	22.89	3.62	**100**			
Total	**69**	**24**	**07**	**100**			
%	**69**	**24**	**07**	**100**			

DISCUSSION

This chapter presents the major findings of the study and discusses them in relation to the findings of other research studies. The study intended to assess the effectiveness of information booklet on organic food and its health benefits among people in selected rural areas of Jaipur.

Data was collected from 100 people selected by convenience sampling before administering information booklet data were collected using structured knowledge questionnaire. Then people were asked to complete same questionnaire one week after the educational intervention. The collected data was tabulated, analyzed and interpreted by using descriptive and inferential statistics. The findings of the study have been discussed with reference to the objectives and hypotheses stated.

The data findings have been organized and finalized according to the plan for data analysis and are presented under the following sections.

Part I: Description of the demographic characteristics of the people.

Part II: Analysis of knowledge scores of people regarding the organic food and its health benefits.

Part III: Effectiveness of the information booklet on organic food and its health benefits.

Part IV: Association of pre-test knowledge scores of people with selected demographic variables.

Part I: Description of the demographic characteristics of people

- The study represents the percentage distribution of study subjects by age group, out of 100 subjects 06% (06) of the subjects belongs to the age group of 21-25 years and 20% (20) in the age group of 26-30 years and 58% (58) of them are in age group 31-35 years and 16% (16) in the age of above 36 years.
- The study represents the percentage distribution of study subjects by educational status group, out of 100 subjects 9% (9) of the subjects are illiterate, 15% (15) are belongs to primary and 21% (21) in the secondary and 55% (55) of the subjects belongs to the Sen. secondary educational status.
- Distribution of study subjects with reference to religion showed that out of 100 subject majority 63% (63) of the subjects were Hindu while 21% (21) were Muslims, 11% (11) were Christian and 05% (05) are belongs to other religion.
- Distribution of study subjects with reference to Family type showed that out of 100 subject majority 63% (63) of the subjects were belongs to nuclear family, while 15% (15) were joint family and 22% (22) were belongs to extended family.
- Percentage distribution of study subjects with reference to sample's occupation showed that out of 100 subjects 57% (57) of subjects belongs to private, 23% (23) of them belongs to govt. and 9% (9) belongs to farmer and 11% (11) have professional occupation.
- The study represents the percentage distribution of study subjects by family income group, out of 100 subjects 13% (13) of the subjects belongs to the family income group of below 10000-20000 and 38% (38) in the group of 20001-30000 and 21% (21) of them are in family group 30001-40000 and 28% (28) in the more than 40000 group.
- Distribution of study subjects with reference to Knowledge about organic food is that 17% (17) has idea about organic food and 83% (83) have not idea about organic food.

Part II: Analysis of knowledge scores of people regarding the organic food and its health benefits

Assessment of the level of pre-test knowledge score among people depicts that, majority 69% (69) has In-adequate, 24% (24) has moderate and 07% (7) has adequate knowledge related to organic food. After the information booklet about the total maximum scores i.e. 30, percentage and frequency distribution of post-test level of knowledge in different aspect of organic food among People. It is clear from the data that 32% (32) has In-adequate, 46% (46) has moderate and 22% (22) has adequate knowledge aspect of people with organic food.

Part III: Evaluation of effectiveness of the information booklet on organic food and its health benefits

The knowledge scores of people regarding organic food and its health benefits have revealed that, the findings show the MEAN, SD, range, mean score percentage of knowledge score before information booklet i.e. aspect wise pre-test mean knowledge of people indicates that mean knowledge score 14.05 on organic food. However, the overall pre-test mean knowledge was 46.83% SD as 4.459 and post-test mean knowledge of people indicates that mean knowledge score 19.23 on organic food. However, the overall post-test mean knowledge was 64.10%, SD as 4.846. So the result shows the significant difference between pre and post-test knowledge score i.e. in Pre-test mean ± SD 14.05 ± 4.459 and in Post-test 19.23 ± 4.846 and their mean difference is (5.18) and the t-ratio was statistically significant as the obtained value (1.959) is higher than the tabulated value (1.660) required for t-ratio to be significant at 0.05 level of significance.

Part IV: Testing of Hypotheses

A. Testing of hypothesis H1

The hypothesis was tested using paired 't' test. The 't' value was calculated and compared with table value to analyze the difference in knowledge of people regarding organic food. The result shows the effectiveness of information booklet by comparing the pre and post-test assessment. In the pre-test knowledge scores was considerably less, compared to post-test performance in all the aspects of knowledge under study.

The findings showed that the mean knowledge of post-test mean knowledge score was 19.23 and overall pre-test mean knowledge score was 14.05 of people. However the overall pre and post-test mean % was 46.83 and 64.10 and 't' value 1.959 which is significant at the level of $P < 0.05$. Hence the research hypothesis H1 stating there is a significant improvement in the knowledge of people regarding organic food was accepted.

B. Testing of hypothesis H2

Chi-Square test was carried out to analyze the significant association between the pre-test knowledge scores and the selected demographic variables. The study findings have shown that, there

is no significant association of pre-test knowledge score with their selected demographic variables Age in year, Education status, Religion, Family type, Occupation, Family income. Only Previous knowledge has significant association of pre-test knowledge score with their selected demographic variables regarding food adulteration.

CONCLUSION

The main aim of the study was to assess the knowledge of people regarding information booklet and to improve their knowledge about organic food and its health benefits. The knowledge of people was improved by a information booklet. The following conclusions were drawn based on the findings of the study.

Assessment of the level of pretest knowledge score among people depicts that, majority 69% (69) has In-adequate, 24% (24) has moderate and 07% (7) has adequate knowledge related to organic food. After the information booklet about the total maximum scores i.e. 30, percentage and frequency distribution of post-test level of knowledge in different aspect of organic food among People. It is clear from the data that 32% (32) has In-adequate, 46% (46) has moderate and 22% (22) has adequate knowledge aspect of people with organic food.

The knowledge scores of people regarding organic food and its health benefits have revealed that, the findings show the MEAN, SD, range, mean score percentage of knowledge score before information booklet i.e. aspect wise pre-test mean knowledge of people indicates that mean knowledge score 14.05 on organic food. However, the overall pre-test mean knowledge was 46.83% SD as 4.459 and post-test mean knowledge of people indicates that mean knowledge score 19.23 on organic food. However, the overall post-test mean knowledge was 64.10%, SD as 4.846. So the result shows the significant difference between pre and post-test knowledge score i.e. in Pre-test mean ± SD 14.05 ± 4.459 and in Post-test 19.23 ± 4.846 and their mean difference is (5.18) and the t-ratio was statistically significant as the obtained value (1.959) is higher than the tabulated value (1.660) required for t-ratio to be significant at 0.05 level of significance.

Association of demographic variables with pre-test scores was computed using chi-square test. The study findings have shown that, there is no significant association of pre-test knowledge score with their selected demographic variables Age in year, Education status, Religion, Family type, Occupation, Family income. Only Previous knowledge has significant association of pre-test knowledge score with their selected demographic variables regarding food adulteration. Thus, the finding indicates that there is lack of knowledge among people regarding organic food and its health benefits and information through various means like information booklet is a useful source for improving the knowledge.

Nursing Implications

- Professional nursing practice is a commitment to compassion, caring and strong ethical values; continuous development of self and others; accountability and responsibility for insightful practice; demonstrating a spirit of collaboration and flexibility.
- Nurses working in surgical department must possess specialized skills and has to perform care these patients. It challenges the nurse's skills to be up-to-date with knowledge and competence.
- Staff development programmes through continuous education and training, teaching and learning materials like information booklet are major factors in shaping the future of the nursing profession.
- The findings of the study have several implications in the field of nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice

- The health care professionals play a vital role in providing educational information, support, and technical follow-up of the device.
- The study has shown various degrees of deficiency in the knowledge among people regarding organic food and its health benefits. It highlights the need for special attention to train the people on organic food and its health benefits.
- The information booklet used in the present study is one of the means to improve the skills through appropriate knowledge. The information booklet can be a means to orient and conduct in-service education programmes for the people.

Nursing Education

- The people should be encouraged to participate in specialized courses regarding organic food and its health benefits.
- There should be individualized teaching and ongoing feedback on their performance.
- Special classes and in-service education programmes should be conducted.
- The information booklet can act as a good teaching and learning material. More emphasis

should be given to periodic development and updating of the information booklet.

- The curriculum of undergraduate and postgraduate nursing should deal in detail about the organic food and its health benefits.

Nursing Administration

- In order to support the people, transition after an organic food and its health benefits and to help them have trust, adaptability and empowerment there is a need for team-based clinics with a structured follow-up programme.
- The people could provide time to verbalize and allow discussions of holistic care face to face or in support groups.
- Educational information material consisting of brochures, videos, websites and other computer-based tools including a holistic perspective needs to be further developed.
- As the number of hospitals caring for malnutrition increases, there is a need for an organized forum for the people aiming to discuss best clinical practice, educational strategies and support programmes to ensure that the patients receive equal care regardless of where they live and have their treatment and follow-up.
- Finally, different multidisciplinary interventions should be highlighted in the clinical guidelines for the organic food and its health benefits.
- The findings of the study have shown that there is improvement in people knowledge regarding organic food.

Nursing Research

- Nursing practice needs to be based on scientific inquiry to build up nursing profession. One of the aims of nursing research is to expand and broaden the scope of nursing. There is a need for evaluation of intervention programmes that include a holistic perspective of educational information.
- Although much research has been done on the organic food knowledge in nursing, the effectiveness of information booklet on organic food and its health benefits is least explored area. There is lot of scope for exploring this area.
- The use of the research findings should become part of the quality assurance evaluation to enhance the nursing profession as a whole.
- The findings of the present study can be utilized by nurse researchers to contribute to the nursing profession to accumulate new knowledge regarding organic food and its health benefits.

Limitations

The limitations of the present study were:

1. The study was confined to a small sample selected by convenience sampling technique which restricts the generalizability.
2. The study lacked control group to allow testing for an increase in knowledge without information booklet.
3. No attempt was made to do the follow-up to measure the retention of knowledge of the people.
4. The observation of information booklet with all its components could not be assessed in the live situation due to lack of time.

Suggestions

1. Continuing nursing education cell could be established.
2. Continuing education helps the nurses to update necessary knowledge with regard to organic food.
3. An orientation programme on organic food could be beneficial and it could ensure effective performance.
4. The pediatrician, nursing staff and ANM center should meet together to update the knowledge and skills, and to discuss the possibilities of improvement in the knowledge of people with awareness of organic food and its health benefits.

Recommendations

Keeping in view the findings of the present study, the following recommendations are made for further study:

1. A similar study can be conducted on a larger sample which may help to draw more definite conclusions and make generalizations.
2. An experimental study can be undertaken with a control group.
3. A study can be conducted at private hospitals and the results of the study may be compared to find out the knowledge on organic food.

Summary

This chapter has dealt with the conclusion drawn based on the findings of the study and implication for nursing practice, nursing education, nursing administration and nursing research, limitations, suggestions and recommendations of the study.

SUMMARY

As health professionals, our practice is constantly becoming more complex and diverse. We are also engulfed in technology in the pursuit of improving quality of life for our patients. Care of people with organic food and its health benefits constitutes a

growing segment of the contemporary health care practice. The recent advances demand the people to become more updated with the knowledge on organic food and its health benefits. The main aim of the study was to evaluate the effectiveness of information booklet on organic food and its health benefits. This chapter presents a brief summary of entire research study.

ASSUMPTION

This study assumes that,

- People will have some knowledge regarding organic food and its health benefits.
- Knowledge may vary from person to person.

VARIABLES

- **Independent Variables:** In this study independent variable is the presumed causes for the resulting effects on the dependent variables. The booklet on organic food and its health benefits.
- **Dependent Variables:** In this study dependent variable is the variable, the researcher is interested in understanding, expressing or predicting. People knowledge about organic food and its health benefits.
- **Demographical variable:** In this study demographical variables were age in year, educational status, religion, family type, occupation, family income, previous knowledge, If yes, then source of information regarding organic food and its health benefits.

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