

**SOME HOMEMAKING IDEAS OF NINETY WOMEN WORKERS  
OF TEXTILE MILL**

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A. Honabai

**A Thesis Submitted to the University of Madras,  
in Partial Fulfillment of the Requirements for  
the degree of Master of Science  
April 1963**

## ACKNOWLEDGEMENT

The author extends her grateful thanks to Dr. (Mrs.) Rajammal P. Devadas, M.A., M.Sc., Ph.D.(Ohio State), Principal, Sri Avinashilingam Home Science College, Coimbatore, for her valuable guidance, encouragement and for making arrangements to conduct the study. Sincere thanks are due to Mrs. G. Kamalanathan, M.S. (Cornell), Professor of Home Science for suggestions and help rendered throughout the study and to Miss R. Shanthi, M.Sc., Lecturer in Mathematics, for her help in statistical analysis. The author is indebted to Mr. T. V. Anoopan, Managing Director, The Coimbatore Harugen Mills Ltd., for allowing the survey to be conducted in the mill. Thanks are also due to the ninety career homemakers for their co-operation.

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## I. INTRODUCTION

Today women's contributions in the building up of the nation by their assuming important responsibilities in all aspects of life are significant. They are no longer confined within the four walls of the home, but are taking up careers besides homemaking for various reasons, their number being estimated as over 175.4 millions (Government of India, 1960)<sup>1</sup>. Devadas (1959)<sup>2</sup> considers that economic necessity ranks foremost among the many reasons for their working for wages.

Taking up careers, creates the need for the homemakers to fulfil dual roles—homemaking and wage earning. Homemaking itself is a full time job, over which the career demands another six to seven hours time daily of the homemakers. This submits the career women to great strain physically and emotionally besides affecting adversely their management of the home. Devadas (1957)<sup>3</sup> reasons that this is so because they are likely to bring the effects of their career into their homes, and affect the peaceful atmosphere.

It is obvious that when women work outside the home, some adjustments which involve decision making; self help and work-simplification are required specially for the low income groups. This raises the need for finding out the types of work-simplification methods and services which would be more suitable to the career women in terms of their pattern

of living, household responsibilities and availability of time and money. Evidences of such studies on the managerial problems of career-homemakers are not available in India.

The present investigation was therefore undertaken to elicit the managerial problems of a selected group of working women of a lower income group in a textile mill as a basis for making suggestions towards solving their difficulties. It is hoped that the findings of this study will help the working women to simplify labour in the home through better use of equipment, working habits and adjustments; stimulate the employer towards extending suitable amenities to relieve the working women to the extent possible from the strain and in discharging of their dual responsibility; and furnish valuable information to students of home management on managerial problems of working women in India.

## II. REVIEW OF LITERATURE

The review of literature on the managerial problems of women working in a textile mill is based on:

- A. The changing role of women in India,
  - B. Why women take up career?
  - C. Careers taken up by women,
  - D. Women workers in industry,
  - E. The problems of women in industry,
  - F. Possible solutions to the problems of working women,
  - G. Previous studies conducted with working women,
- and H. Methods of studying managerial problems.

### A. The Changing Role of Women in India:

In ancient India women considered their role as wives and mothers supremely satisfying and perhaps this acceptance had originated the proverb "Men for the field and women for the Hearth". Alva (1960)<sup>4</sup> narrates that in olden days, when a woman worked for a living her family was ignored by society, as her work reflected her husband's incapacity to earn a living to support the family. Another view is given by Dutt (1962)<sup>5</sup> that women did not seek employment outside the home because they were not aware of their inherent capabilities and that their interests were confined only to the homes. Traditions, customs and religion also prevented women seeking careers outside the home. Further

as cited by Bengupta (1960)<sup>6</sup> until the seventeenth century Indian woman did not consider it necessary to work outside the home because the home was a self sufficient unit, producing all its needs and consuming them.

#### B. Why Women Take up Careers?

Giri (1958)<sup>7</sup> points out that after the advent of the industrial revolution women had to leave their homes to work for wages outside.

Conditions have changed today as a result of many developments among which the emancipation of women, brought about by Mahatma Gandhi, the father of the nation, is the most significant. Gandhi's (1949)<sup>8</sup> leadership inspired women with a spirit of "sacrificial service" and women came out of their homes to take an active part in the struggle for independence and also to work for money outside the home. Gandhi's prophecy, "Women in the new order will be part-time workers, their primary functions being to look after the home" has thus been fulfilled.

Gupta (1961)<sup>9</sup> reveals that economic necessity is one of the causes for an increasing number of women to seek employment in various occupations. Reichert (1961)<sup>10</sup> confirms that some working mothers with small children, though less inclined to take up outside career are forced to do so in order to make both ends meet. This process has further

been accelerated by industrialisation. According to Sahay (1960)<sup>11</sup> the availability of limited hours of work with a fixed wage return in industry has enticed many rural women to opt for careers. This attraction became greater due to the shortage of labour by which employers were forced to offer high wages. Higher wages resulted in enhanced standard of living which in turn perpetuated the women to take up outside careers in order to maintain the standard of living once established. Deshpande (1959)<sup>12</sup> suggests that widows instead of adding to the burden of the family can take up careers. Even to those unfortunate women whose husbands had lost the capacity to earn through illness or accident, career has become a necessity; also deserted wives have to take up careers for their living.

Some women take up jobs just because of their interest in work. Myrdal and Klein (1956)<sup>13</sup> express that the existence of a sufficiently wide range of suitable jobs within easy reach; good transport facilities and the possibility for making arrangements for some of the more time consuming household duties to be taken even by commercial services, are all possible causes to initiate women to take up careers outside the home. Devadas (1957)<sup>14</sup> lists other reasons such as the urge for self expression, social service, to avoid the drudgery of housework and to escape boredom. Weitzel (1957)<sup>14</sup> suggests the psychological reasons for women seeking

employment as the desire for achievements in fields other than housework, socialisation and prestige given to women workers by society and to gain independence.

Dayal (1962)<sup>15</sup> states that Indian women take up industrial and commercial employment in large numbers because of the opportunity offered to develop a healthy team spirit and to help their families to have better food and better educational facilities for their children.

Verna (1962)<sup>16</sup> considers the spread of education among women has also added momentum to their employment outside and they seek careers in order to acquire the same status as given to men in society and this trend is one of the dynamic changes that has happened in the modern era. Today, unhindered by the traditions of the past, women shoulder the dual responsibility of combining work at home with a job outside.

### 3. Careers Taken up by Women:

The encyclopaedia of social sciences (1959)<sup>17</sup> defines the term "Career" as any continuous and conspicuous work in which notable achievement may be won; and that a career for women has come to mean the carrying on of distinctive and distinctive individual activities, as against being merged in the family group.

Numerous careers are now open to women in almost every

field of work. The Constitution of India (1958)<sup>18</sup> accords equality of opportunity to women in public employment. Gulati (1956)<sup>19</sup> states that there is much scope for educated women to work as lawyers, doctors, journalists and even as politicians and in other fields such as nursing, teaching and clerical jobs. Desai (1957)<sup>20</sup> states that women are to be found more in teaching, nursing, clerical and industrial establishments and not to be found in large numbers in legal, business or journalistic spheres.

Sengupta (1958)<sup>21</sup> exhorts that all careers are now open to women and that it is upto women entirely to avail themselves of the opportunities created. In certain fields of work, there is a greater demand for women workers than men because of their inherent qualities. Devadas (1958)<sup>22</sup> emphasizes that in the field of Home Science women have great opportunities to take up careers with any level of education beyond middle school. Even the less unfortunate ones who are not educated can take up unskilled jobs in textile and co-industries, fish and coffee curing, ginning and cashew factories and in plantations. In times of national emergency, women's role as home guards, signallers, are additional opportunities.

✓ The type of employments women can take up depend upon her education, ability, training, aptitude and circumstances. Giri (1958)<sup>7</sup> considers that most of the employments of women in India is only of the semi-skilled variety. According

to Hewson (<sup>23</sup>) the dual role of women, namely wife and mother and employee can permit them only to work in semi-skilled occupations. Masoria (1960)<sup>24</sup> specifies that women prefer semi-skilled jobs as it does not call for any particular skill or training and they like such jobs. In contrast Gupta (1960)<sup>25</sup> asserts that women are capable of undertaking strenuous jobs also, such as engineering, architecture and town planning, law, aviation and nuclear physics, all of which were believed to be man's strongholds. Menon (1950)<sup>26</sup> states that since independence women have gained equal status in the field of politics. Deshmukh (1962)<sup>27</sup> feels that women are more suited in social fields and services and nursing, teaching and a number of others for which they have a view of bend and fitness.

#### B. Women workers in industry:

The Indian Constitution (1958)<sup>18</sup> guarantees equal pay for equal work for men and women. How far this has been put into practice is doubtful. Giri (1958)<sup>7</sup> says that the wages of women workers are usually fixed at rates lower than those of men either because the relative value and nature of work are different in the two cases, or because of historical developments and social and economical factors.

Sen Gupta (1960)<sup>28</sup> refers that the position of women in Indian industries has changed since 1947, as the governments, central and state, have passed various Acts to protect the women workers with the full co-operation of the Indian Labour Organisation.

The objectives of the Indian Labour Organisation as per the Factories Act of 1948 concerning the employment of women, are giving women full employment opportunities together with protection of their special physiological and social needs. Gupta (1961)<sup>9</sup> cites that the Factories Act of 1948 protects women from undertaking hazardous operations by regulating that no woman shall be employed beyond nine hours a day or be employed except between six in the morning and seven in the evening and there shall be no change in the shifts except after a holiday. Thus the women workers now enjoy weekly holidays, intervals of rest and annual leave with wages. The Factories Act also enforces that in every factory wherein more than 50 women workers are employed, certain welfare facilities such as creches for children below six years of age are to be provided. The Factories Act also provide for employees state insurance which apart from making provisions to all workers irrespective of sex gives some special provisions for women workers like maternity benefits. The women worker can retain their jobs before and after confinement and also get maternity benefits for a period of twelve weeks of which not more than six can precede the date of confinement. These labour legislations in respect of women are progressive and dynamic; producing greater protection and facility which add to their economic, social and political progress today.

A special amenity for industrial labourers is the

Industrial Listener's forum sponsored by the Government of India. The forum is contributed by a "listener-own-discussion-own-action group" of industrial workers. In many ways it functions as a social education centre to widen the knowledge of the members. It also discusses freely the day to day problems encountered by them in their industrial work (1962)<sup>29</sup>.

### 3. The Problems of Women in Industry:

Robert (1952)<sup>30</sup> indicates that industries, governments and society have done little to help the housemakers to adjust themselves as a person and wife, to the job and to help them manage home efficiently. The strain caused by fulfilling their two fold responsibilities is always pressing. Devadas (1957)<sup>3</sup> says that it is because the wage earning wives have to give full time services for their employers in order to earn wages and do the entire share of their work in the home, as a wife and mother. Because these two jobs are equally demanding, one phase is likely to be neglected in order to maintain the other. Contractor (1962)<sup>31</sup> asserts that this difficulty is more intensively felt by women of the low income groups who cannot afford to have paid labour to assist in the home.

Home making is a full time job requiring about 42 to 45 hours work per week. Even in countries with advanced technology as the U.S.A., Whentcroft (1960)<sup>32</sup> estimates that in an

average family with a reasonable standard of efficiency, 40 hours a week were required in the home for cleaning, cooking, laundering, care of children and other household activities.

Most of the problems faced by homemakers pertain to care of children and other household duties particularly cooking. Kovadas (1962)<sup>33</sup> mentions that women working in factories could not devote proper attention to their children due to limitations of time and could not carry out their daily routine such as cooking, to their satisfaction. She infers that women are not able to solve these problems due to shortage of resources both human and material and also observes that in some families bad family relationships were caused due to the long hours of work resulting in fatigue which disrupts the temper of the homemakers. The Food and Agricultural Organisation of the United Nations (FAO 1962)<sup>34</sup> indicates that due to inadequate food consumption the workers are adversely affected and the reduced capacity for work is usually the result of continued deficiencies. The most important factor affecting food consumption are attributed to economic factors and socio cultural factors.

According to a report based on a dietary survey by the department of nutrition of various countries, the average dietary intake as the nutritional status of the industrial population is not satisfactory. Based on the existing

conditions, welfare measure have been suggested. Non-profit food stores offer chances to promote consumption of higher quality vitamin rich foods, improvement in the snacks or mid-day meal served in the mill canteen and well organised nutrition education programme for the workers and their families are advocated.

**F. Possible Solution to the Problems of Working Women:**

Various authors have suggested that when women work outside the home certain adjustments need to be made in order to carry out their dual responsibilities of managing their home and career efficiently. The suggestions are given under the following category:-

1. Proper utilisation of resources.
2. Economic utilisation of time and energy.
3. Use of labour saving kitchen devices.
4. Obtaining leisure.

**1. Proper Utilisation of Resources:**

Kent (1952)<sup>35</sup> suggests two ways through which the family can help the homemakers to manage their home satisfactorily; one is eliminating waste of time and energy and the other is using modern labour saving equipment. Gross and Crandall (1954)<sup>36</sup> caution that when women work outside the home certain adjustments within the family will need to be made if the homemakers use a large part of her time and energy in gainful employment.

## 2. Economic Utilization of Time and Energy:

Fitzsimmons and White (1958)<sup>37</sup> point out that the best way to get a work accomplished is through the use of minimum time and energy.

Nickell and Dorsey (1960)<sup>38</sup> emphasize that time is the frame work in which various activities and work take place. It is the one resource which is constant in the life of every man and cannot be stretched. In most homes the time for doing certain tasks is definitely fixed to some conditions outside the home as well as some special demands within it. Effective management depends on having a plan, as plans are useful tools in saving time and energy and relieving the tension of indecisions and uncertainties.

Wood et al (1962)<sup>39</sup> suggest that the time and energy consuming activities of the homemakers could be streamlined or even eliminated without affecting family welfare, or seriously improving family comfort and enjoyment.

## 3. Use of Labour Saving Devices:

Equipment means small contrivances which help in quick execution of work than when the work is done by hand.

Equipment is a machine or tool necessary for using a particular kind of work in a better way than when the work is done by hand. The importance of kitchen equipment has been emphasized

by Child (1914)<sup>40</sup> as having the most direct bearing on the running expenses, the comfort of the homemaker and the members of the household. The use of devices in household work not only saves time, but also energy. Muntz (1953)<sup>41</sup> states that using modern equipment and new materials has changed the homemakers from being a slave to back-breaking and time consuming jobs to shabby career girl who manages her job too. Thabet (1957)<sup>42</sup> views that often it is the small appliance or the kitchen tool that helps to get the job done quickly with the least amount of effort and in the best possible way.

The benefits of labour saving equipments has a special significance to the women with regard to their working in the kitchen. Raju (1957)<sup>43</sup> defines the kitchen as the centre of the home. The kitchen determines to a large extent the health, comfort and the happiness of the family. Hence it should be properly equipped so that it can be a delightful place to work. Devadas (1960)<sup>44</sup> advocates that a cooking device which will cook meals in a shorter time will be a great boon to homemakers.

Fitzsimmons and White (1958)<sup>37</sup> are of the opinion that since energy is used with time, some of the methods used for good time management will help to save energy. They suggested the use of equipments as one of the means of making jobs light and easy.

#### 4. Obtaining Leisure:

Leisure means availability of time for rest and recreation. Small (1922)<sup>45</sup> suggests that rest period is important for the working mothers, to reduce fatigue and nerve strain which often caused discord in the home. Otis (1923)<sup>46</sup> advises that the family will profit by giving the homemaker leisure, since it will then give her more time <sup>to</sup> understand the members and sympathize with them. Leisure is even more important after the long hours of work in the factory and home. It is less likely to make her lose temper with the family. Lystrom (1929)<sup>47</sup> reiterates leisure as the surplus time remaining after practical necessities have been attended to. "It is the time free from obligations to employers or others to whom, there may be responsibility".

#### G. Previous Studies Conducted with Working Women:

Writton (1933)<sup>48</sup> reports two studies conducted in the different localities in U.S.A. namely, Ames and Corvallis in order to ascertain how ten employed homemakers combined their two jobs of homemaking and gainful work, and compare with a similar study made by him with full time homemakers. The comparison of these two studies showed no difference between the gainfully employed homemakers and the full time homemakers with regard to expenditure of time on activities such as eating,

personal care and sleeping, which totalled upto ten hours per day. However there were notable difference in the time spent on homemaking activities and recreation. Seven to nine hours per day were spent on homemaking by the full-time homemakers and four hours per day by the gainfully employed homemakers. The time spent on recreation was found to be five hours per day and three hours per day respectively.

Herbert (1952)<sup>30</sup> states in the basis of a study in the time expenditure of a homemaker working outside the home, that the average housekeeping time of the wage earning homemakers was five to nine was eight hours per day and that of full time homemakers eight hours. Anderson and Fitzsimmons (1960)<sup>49</sup> mention a comparative study of the average time spent on homemaking activities by part-time and full-time working women, and found that part-time working women spent 49 hours for household activities and that full-time working women were able to devote only 31 hours on household activities. All the homemakers spent the largest amount of time in food preparation.

Only one reference is available on a similar study in India. Devadas (1952)<sup>32</sup> in her study on 100 homemakers working in industry in Coimbatore of whom 70 per cent were from textile industry reported on the problems faced by women workers in their work family and domestic life. It was found

from her study that the day for employed homemaker began between 4.00 and 4.30 P.M. enabling her to devote two to three and half hours for domestic chores just before leaving to the factory. Work like cleaning and sweeping the house, preparing coffee and morning food, attending to children, were done in the morning hours; and washing clothes, cleaning utensils, attending to children, grinding all of which required more time were postponed to evening on return from factory. On an average she daily devoted three to three and a half hours on making her total working time to about 13 hours of work per day. These homemakers expressed difficulty in preparing food for the family due to limitations of time as they could not devote adequate attention to these aspects.

#### II. Methods for studying the Managerial Problems of Homemakers:

Gross et al (1940)<sup>50</sup> in a study of the methods of research to be used in the field of home-management compared three methods of obtaining the information, namely, the questionnaire, interview and diary methods. They concluded from the study that the interview method was the best method for obtaining information on home-management and questionnaire second best.

Good and Seaton (1954)<sup>51</sup> describe that the face to face contact gives the employer an opportunity to observe the

reactions of the interviewees to secure some basis for judging the quality of the individuals, and to note the social responses of his behaviour. Young (1956)<sup>52</sup> lists the advantage of adopting the personal interview as "the only instrument by which significant memories of the past and plans for the future can be ascertained. These cannot be learned by mechanical means or observation". George (1963)<sup>53</sup> illustrates the three functions of the interview method as that they gain information, give information and motivate. In eliciting information all the above methods may be followed for studies in managerial problem.

### III PROCEDURE

The purpose of the study was to elicit the managerial problems of women working in a textile mill in Coimbatore and to suggest some measures for solving the problems identified. The procedure consisted of two phases, namely:

- A. A survey on the managerial problems of 90 selected career homemakers (\*) working in a textile mill.
- B. Study of the effects of introducing a simple labour saving device, namely hay box in ten selected homes.

A. A Survey on the Managerial Problems of 90 Selected Career Homemakers in a Textile Mill:

The steps in conducting the survey were:

1. Selection of the industry.
2. Selection of method of investigation.
3. Selection of sample of career homemakers.
4. Preparation of the interview schedule.
5. Conducting the interview, recording and analysis of data.

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(\*) The term "Career Homemakers" in this thesis refers to those career women who have homemaking responsibilities.

### 1. Selection of the Industry:

The industry selected for the study on the managerial problems of workingwomen was an A class textile mill in Coimbatore, with an yearly production of 8,75,700 kilograms of yarn and 8,80,000 metres of cloth. It had 1,166 employees on roll of which 213 were women working as reelers, winders and ayahs. The amenities provided by the mill were creche, canteen, rest room and cooperative store. The mill was chosen as the area for study for the following reasons:-

The textile industry is one of the dominant fields offering employment to women from different family backgrounds.

The women employees are full time workers in the mill.

Access to the homemakers is easy as they are working in one place.

used The management extends full cooperation by permitting the investigator to undertake the study within their premises.

The mill is near the college.

### 2. Selection of Method of Investigation:

For the collection of data the interview technique was selected, as this method was useful and more apt for the

study because it permitted personal contact with the interviewees.

### B. Selection of Sample of Career Homemakers:

In order to select the sample it was necessary to obtain some basic information on all the women workers in the mill. For this purpose a schedule was drawn to obtain general information regarding their caste, age, home address, average monthly income, marital status and date of entertainment. With this schedule, the investigator with her guide met the managing director of the mill and explained the purpose of the study. The manager introduced the guide and the investigator to the Welfare Officer and instructed him to introduce the women workers to them.

The selection of sample of career homemakers involved:

- a. Meeting of all the women workers in the industry.
- b. Selection of the 90 career homemakers who contributed the sample.

### A. Meeting all the Women Workers in the Industry:

The Welfare Officer approached the women workers and explained to them the purpose of the investigation and

explained that an investigation would be conducted during the work time and that the loss of time would not affect their wages. The women workers were met by the investigator to study their background so that a basis for the selection of the sample could be formed. The Welfare Officer informed the investigator that each woman had a "Ticket" through the number of which each woman worker could be easily contacted. The basic and accurate information regarding the wages of the women were obtained from the Mill Office. This was useful in forming the questionnaire for the interview schedule.

#### b. Selection of the 90 homemakers who contributed the Sample:

Of the 215 women workers contacted 60 reported that they did not shoulder any home making responsibility; 56 were indifferent to answer and could not be persuaded to be more cooperative and seven were on leave at the time of interview. The remaining 90 were interviewed as they were found to be full time career homemakers.

#### 4. Preparation of the Interview Schedule:

In order to ascertain the information regarding the homemaking problems of women workers, a tentative interview schedule was prepared consisting of a list of questions considered essential pertaining to the daily

activities and use of resources of the women under classified headings in different areas of home management. The tentative interview schedule was pretested with ten similarly placed homemakers who were not included in this study.

The interview schedule was modified in the light of the inadequacies and problems encountered by the interviewer and the interviewed deleting irrelevant and redundant items; and adding others which appeared important. Interview Schedule thus finalised is given in Appendix I. It included elicitation of the home address, marital status, age of the homemaker, education, and composition of the family, their occupation and income, reasons for taking up the job, type of work, number of working hours, number of working days, distance of mill from the home and mode of transport.

Activities carried out during the afternoon break period, household activities performed before and after factory hours, the time for each activity and the time given by persons who helped. Activities done on holidays were also included.

The following points were elicited:

Income and expenditure pattern, methods and reasons for savings and the extent of indebtedness, if any, methods employed for cooking staple food, daily menu, method of

washing clothes and cleaning kitchen utensils. Special activities done on holidays; problems encountered by the homemakers in their homes, the causes they attributed for these problems and their suggestions to solve them. The attitudes of the homemaker towards work at home and factory the advantages and disadvantages due to working outside and towards the amenities provided.

### 2. Conducting the Interview; Recording and Analysis of Data:

The sequence followed in conducting the interview was

- a. Preliminary arrangements.
- b. Establishing rapport with the women employees.
- c. Recording the information.
- d. Concluding the interview.

#### a. Preliminary arrangements:

It was arranged with the Welfare Officer to interview four women daily, at a fixed time around 10.30 to 11.30 A.M and 2.30 to 3.30 P.M., when they were willing to have a change from the fatiguing work at the machine. The interview was arranged to take place in a comfortably furnished quiet room near the Welfare Office.

#### b. Establishing Rapport with the homemakers:

The interviewee was invited to take a seat and

rapport was established between the investigator and interviewee through self-introduction and explanation of the purpose of the study, and asking for her cooperation. She was then assured that the information collected would not be divulged to the mill authorities and that the data would be kept strictly confidential. The investigator further motivated the interviewee by explaining to her that she could take as much time as she wanted, to think about her responses and not to worry about her work that she would have put aside for the moment, and confirming the assurance given by the management authorities that her wages would not be reduced. Then questions regarding her daily activities and problems were put to her as per the interview schedule.

c. Recording the information:

Using the questionnaire the required information was collected. In some cases the women needed explanations and classified questions were put to the homemakers and information was collected.

d. Concluding the interview:

Each interview was concluded by thanking the interviewee for her cooperation and help rendered towards the study undertaken by the investigator and informing her that her cooperation might be needed for further study to

implement methods of solving their household problems.

The data collected from the 90 women interviewed were consolidated and analysed.

### B. Study of the Effects of Introducing a Simple Labour Saving device, namely Haybox in Ten Selected Homes:

The second aspect of the study was to introduce a labour saving device, namely, hay box in ten selected homes, as the analysis of problems of the career homemakers showed that many were faced with problems related to cooking because of the limited time at their disposal. The steps in the experiment were:-

1. Selection of the device.
2. Selection of sample of homemakers for the study.
3. Construction of hay boxes.
4. Demonstration of the working of the hay box.
5. Supplying the device in their homes.
6. Observations of :- (a) The use of the device by the homemakers,  
(b) Attitudes of the homemakers towards the device.

#### 1. Selection of the Device:

The Hay box is an improvised fireless cooker, so called because hay is used as an insulating material. According to Avery (1952)<sup>54</sup> if partly cooked food, while

still hot, is placed in a well insulated container the heat in the food will complete the cooking process.

Pushpa (1962)<sup>55</sup> reports that the Haybox is a convenient, inexpensive labour saving device for good home management. Further, the device has the following advantages:-

The materials needed for construction of hay box is locally available and the cost of it is within the purchasing power of the homemakers;

The operation of the device is easy to understand and simple enough even for illiterate homemakers;

The staple food of these homemakers was rice which is tastier when it is hot. Hay box will enable them not only to cook the food but also to keep it hot for a long time;

Devadas (1960)<sup>56</sup> lists other advantages as, that it saves time, labour, and fuel, gives time to the housewife to attend to other duties, makes food cook evenly without charring or burning and keeps the vitamins intact.

## 2. Selection of Sample for the Study:

Of the 90 working women interviewed, ten homemakers were chosen for the study on the following basis: those,

who were full time homemakers with no assistance for domestic work,  
 whose per capita income was between Rs. 11 to 40 per month,  
 on whom the demands of homemaking were greater than others,  
 who found cooking as one of the problems,  
 who were eager to find solutions to the problems, and  
 who were willing to cooperate with the investigator.

### 3. Construction of Hay Boxes:

Materials required for constructing haybox were:

- (a) A box made of any ordinary wood, large enough that when the utensil in which the food to be cooked was placed at the centre, it would permit a space of about three inches on all sides. The box was fitted with a lid.
- (b) Hay for insulating the box.
- (c) An utensil with a fitting lid for cooking the food. The size of the vessel was such that when the rice and water were added it should cover three fourths the height of the vessel as Anandan (1962)<sup>57</sup> says that this is important to reduce loss of heat due to evaporation.
- (d) A gunny cloth for making the hay cushion.

Hay was spread for a thickness of three inches at the bottom of the box. Over this the utensil in which the

food was usually cooked was placed and hay was tightly packed on all sides of the utensil, so that when the vessel was removed it created a nest or hollow space at the centre of the box. With the gunny cloth a cushion of three inches thickness was made. The length and breadth of the cushion was equal to the dimensions of the box. The cushion was placed over the utensil in the box. The box was then closed.

The ten hayboxes that were used for the study were each of the following dimensions and cost.

| Materials.             | Dimensions.     | Cost.       |
|------------------------|-----------------|-------------|
| Wooden box of dealwood | 19" x 19" x 19" | Rs. 2.00 nP |
| Gunny bag              | 20" x 35"       | Rs. 0.75 nP |
| Hay                    | 2 bundles.      | Rs. 0.50 nP |
|                        | Total :         | Rs. 3.25 nP |

#### 4. Demonstration on the Working of the Haybox

For introducing the equipment it was necessary for a demonstration as according to Ritchie (1930)<sup>58</sup> demonstration is the best method of convincing, as something only seen or only heard, so a result demonstration

was planned. The various steps in the demonstration were, selection of the venue, and time.

It was necessary to hold the demonstration in one place and the college was selected as the venue for demonstration because of the expressed desire of the homemakers to visit the college where homemaking education was imparted. They considered meeting the Principal and staff of the college a great honour extended to them and added to their prestige in society. The investigator therefore held the demonstration in the college.

The demonstration was held on Tuesday, their holiday, and the time was fixed at 4.30 P.M., to suit their convenience. The demonstration was held in a well lighted room. The homemakers were cordially received and seated on mats and the demonstration was held on a low table so that the procedure followed would be visible to the audience.

For demonstration, two steps were undertaken, namely:-

- a. Selection of equipment for demonstration.
- b. Conducting the demonstration.

a. Selection of equipment for demonstration:

The minimum number of equipment with simple design were selected. They were,

A ready made hay box.

Two earthenware pots, one with a lid to be used for cooking and the other for washing the rice.

Two brass 'dekshis', one filled with water and the other to pour out the water used for washing the rice.

Par boiled rice.

An ellock (measuring device of the capacity of  $\frac{1}{2}$  litre) to measure rice and water.

A sigri to be used for the initial cooking of rice.

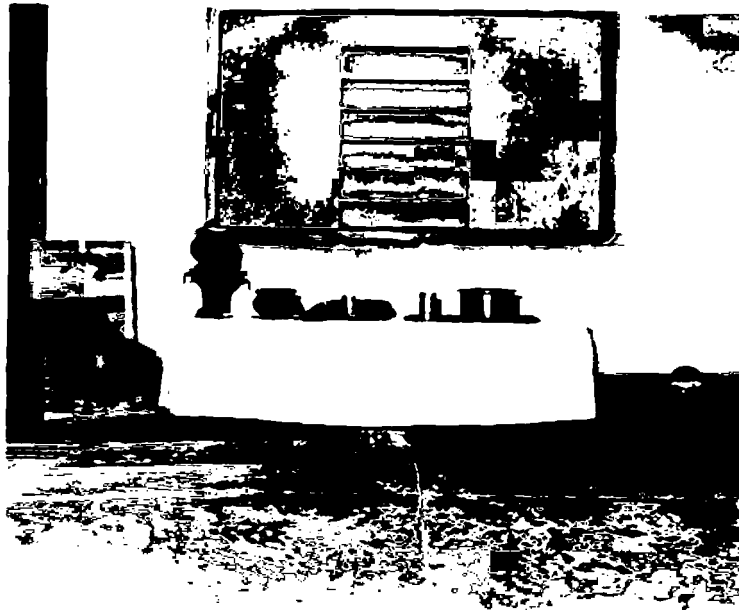
#### b. Conducting the Demonstration:

The advantages of the hay box were first explained to the homemakers. They were then informed that they will each be supplied with a hay box for their use. They were also assured that the investigator would visit them from time to time in order to help them out of their difficulties in using the hay box. The use of the device was then demonstrated as shown in Figure 1- ABCD

Half litre of par boiled rice, was cleaned and washed. One and a quarter litres of water was measured and set to boil on the sigri. The importance of using the correct proportion of water for cooking rice, that is, for every litre of par boiled rice,  $2\frac{1}{2}$  litres of water and for raw rice 2 litres of water should be added, was impressed on the homemakers.

## FIGURE 1.

## DEMONSTRATION ON THE USE OF THE HAY BOX



A. ARRANGEMENT FOR DEMONSTRATION.

B. INSPECTING BEFORE TRANSFERRING  
TO THE HAY BOX.

FIGURE 1 CONTINUED.



C. TRANSFERING TO HAY BOX.



D. TESTING THE PRODUCT.

While the water was set to boil, the different parts of the hay box were taken apart and explained to the homemakers. When the water started to boil, the washed rice was added and then stirred. Five minutes after the rice and water had come to boil the utensil with its contents, covered with the lid was transferred to the hay box, and the hay cushion was placed and the box was closed.

The following instructions were given to the homemakers:

They could use bran, saw dust or paper strips instead of hay.

They should not dole out the food within the hay box as there was the liability for the food to be spilt resulting in hay contamination.

They should not open the box from time to time, once the food is placed, except after one and a half hours.

They should dry the hay once in four days to prevent pests and insects from breeding in the hay.

They should change the hay once in a month.

They could cook other foodstuffs in the hay box like other cereals, pulses and root vegetables.

While the homemakers were waiting for the rice to be cooked, fruit juice and chips were served to them and topics of general interest such as cost of food stuffs and

the importance of conserving food and use of labour saving devices were discussed.

After this the homemakers were taken round the college. One and half hours after the rice was placed in the hay box, it was opened and the cooked rice was given for inspection and evaluated by the homemakers for its texture, taste and appearance. The homemakers were very much interested and assured the investigator that they would use it from that day.

#### 5. Supplying the Device in their Homes:

After the demonstration they were thanked individually for their cooperation and each one of them was given a hay box, two bundles of hay and a gunny bag for their own use. This was given to these homemakers only on the condition that they were going to use it.

#### 6. Observation on the Homemakers' use of the Hay box:

In order to find out the usefulness of the hay box in these families the investigator visited each house once in two days. During the visits she checked whether or not the homemakers were actually using the hay box and assessed how far the hay box was found useful in solving their problems. Through their comments their attitudes were studied as their attitudes were the criteria for measuring the usefulness of the hay box. The records of

time and fuel consumption were also noted. A schedule as shown in Appendix II was in order to study the opinions of homemakers in using the haybox. It included information on :-

The number of meals cooked, using the hay box.

Type of utensil used for cooking.

The quality of the cooked food with regard to the texture, taste, colour and doneness.

Types of preparations other than rice cooked in the hay box, and

The advantages and disadvantages of using the hay box.

#### IV. RESULTS AND DISCUSSIONS

The results of this study on the managerial problems of ninety career homemakers working in a textile mill are presented on the following angles -

- A. The general background of the career homemakers. ✓
- B. The managerial problems of the career homemakers.
- C. Study of the effects of introducing the hay box in ten selected homes.
- D. Suggestions for solving the problems of the career homemakers.

##### A. The General Background of the Career Homemakers:

The 90 career homemakers selected for this study are all married. They are mostly from the urban areas in and around Coimbatore Town. A profile of the women workers is presented below with reference to -

1. Marital status,
2. Age,
3. Education,
4. Nature of employment,
5. Family composition and
6. Income distribution.

##### 1. Marital status:

Among the career homemakers, 52 are living with husbands of whom 15 are unemployed, 26 are widows and 12 are deserted by their husbands.

The social problems of these homemakers comprise of

separation from husband, husbands remarrying due to barrenness of the homemakers and in one case the homemaker compelled her husband to remarry so as to have an issue. Other problems are loneliness at the time of sickness due to widowhood especially when there are no children at home.

## 2. Age:

Among the ninety women workers, 73 belong to the age group of 31 to 50 years. The large number in this age group may be due to the following reasons: (that) in the later phase of the expanding family life cycle, when children have grown up, the homemakers are free to take up jobs outside; this is the period in which the economic necessity is also acute.

While the Factory Act permits employment of women of 18 years of age and above, the fact that there are no women below 26 years shows perhaps the reluctance of the newly married or the young mothers to take up outside careers, or their waiting for their turn, which will fall only when the permanent incumbents retire at the age of 60 years.

## 3. Education:

Of the 30 career homemakers, 76 are illiterate, six have completed first grade and eight have studied upto fourth grade. The educational level of these women reflects the status of women's education two decades ago, when due to poor facilities, lack of interest among parents and need to take care of younger siblings, they were not able to study.

#### 4. Nature of Employment:

All the women are permanent workers, and eighty three are in employment since 1948.

#### 5. Family Composition:

Of the 90 women workers, four are widows living alone, and 15 women have large families of more than eight members. The rest have families of two to three members, four to five members or six to seven members. The number of problems increased with the size of the family as statistically proved on null hypothesis, Guilford (1956)<sup>59</sup> (Appendix III).

#### 6. Income Distribution:

The income distribution of the 90 families of career homemakers is given in Table I.

TABLE I

## INCOME DISTRIBUTION IN THE FAMILIES OF THE 90 CAREER HOMEMAKERS.

| Income intervals in Rupees | Number of families | *Average number of employed member | Average number of members in family | Average per capita income per month in Rupees. |
|----------------------------|--------------------|------------------------------------|-------------------------------------|--|
| 51 - 100                   | 21                 | 1.0                                | 3.0                                 | 42   |
| 101 - 150                  | 25                 | 1.7                                | 4.0                                 | 35   |
| 151 - 200                  | 24                 | 2.3                                | 5.0                                 | 37   |
| 201 - 250                  | 15                 | 2.5                                | 6.2                                 | 35   |
| above 251                  | 5                  | 2.4                                | 7.5                                 | 47   |

Table I shows that even though the total income varied greatly from family to family, the per capita income was fairly constant indicating that the total income was based on the number of earning members in the family.

### B. The Managerial Problems of the Career Homemakers:

The data recorded are analysed and presented as the managerial problems of homemakers in relation to:-

1. Utilisation of resources.
2. Methods employed in homemaking activities.
3. Their attitudes towards work in the home and career.

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\* This number included the homemakers also.

## 1. Utilisation of Resources:

The utilisation of two major resources are discussed as follows:-

- a. Money expenditure.
- b. Time expenditure.

a. Money Expenditure: The average distribution of monthly money expenditure of the 90 career homemakers is represented in Figure 2.

From Figure 2, it can be seen that the major expenditure in these families is on food being 58 per cent of the total income and clothing 10 per cent. The per centage of expenditure on shelter is five because 24 families own houses. The incidental expenses such as taxes are met once in six-months. Other items of expenditure are for education, fuel, entertainment and sundry items. None of them maintain accounts.

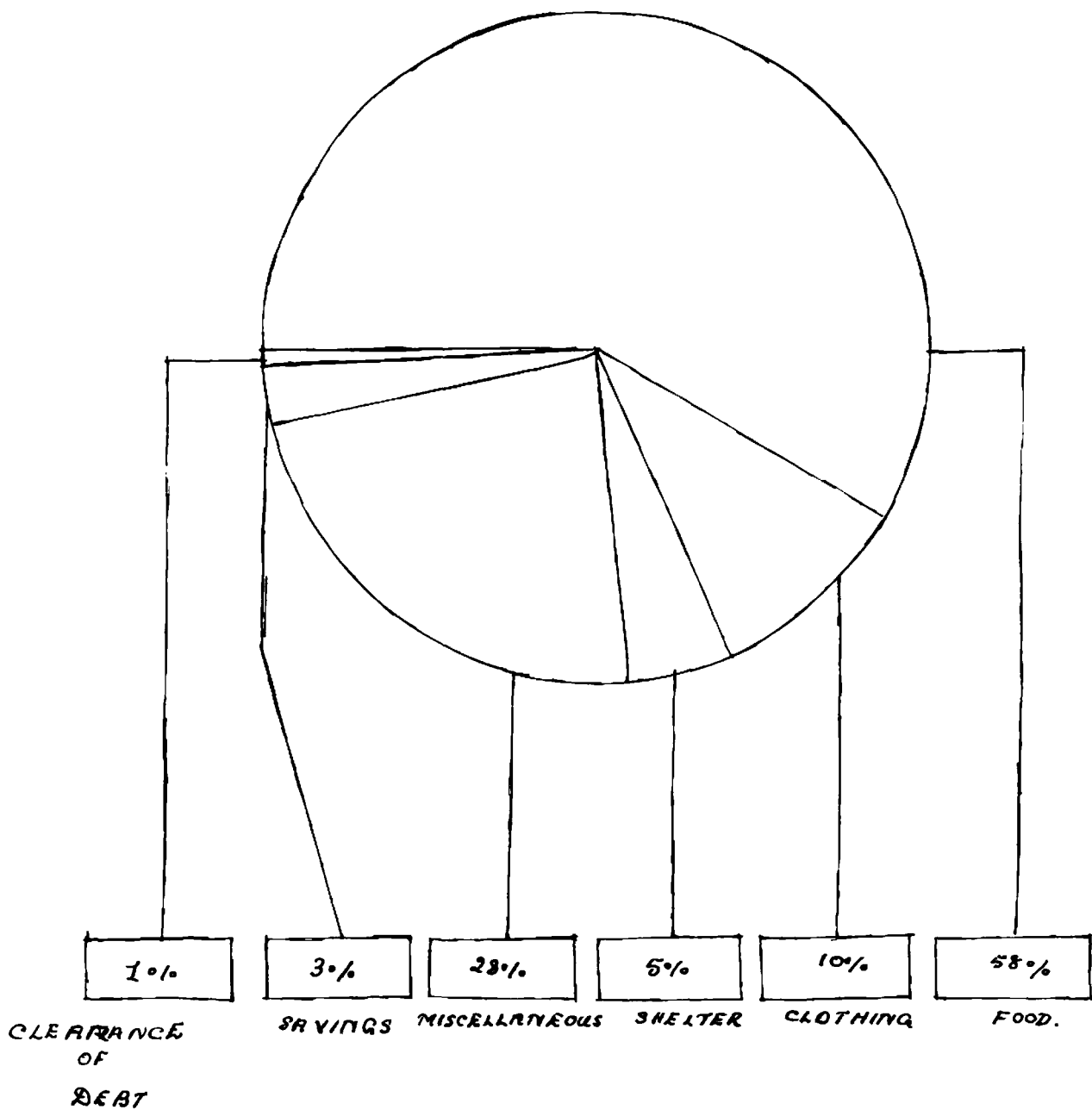
All the career homemakers are aware of the importance of saving but only 18 per cent of the families have savings to their credit from Rs. 5/- to Rs. 38/-. Their goals for saving are: for educating their children (nine per cent), to own a house (five per cent), to buy some land (two per cent), and for their old age (two per cent).

Thirty five of the career homemakers interviewed are in debt ranging from Rs. 35/- to Rs. 500/- because of celebration of weddings, festivals or sickness. Interest is paid at an annual

# FIGURE 2.

42

PIE CHART REPRESENTING THE AVERAGE MONTHLY EXPENDITURE PATTERN OF THE 90 CAREER HOMEMAKERS.



rate of six naye Paise to 15 naye Paise per rupee. This debt is cleared either in monthly instalments ranging from Rs. 5/- to Rs. 25/- or through the annual bonus. Economic problems is one of the most acute problems which baffled the homemakers and of which they evinced an awareness. The cause of their debt may be due to their limited income, lack of budgetting, account keeping and due to many members depending on the same income.

b. Time Expenditure: The pattern of daily time expenditure of the 90 career homemakers is given in Figures 3.

Time expenditure of the homemakers is discussed as time spent for:

- i. Career,
- ii. Management of Home,
- iii. Personal Management,
- iv. Holidays.

i. Career: All the career homemakers spend eight hours per day for work in the mill and one hour for the rest period between working hours. In addition, they spend some time for travel. The women are coming to the mill from distances of one furlong to three miles. The modes of transport of these career homemakers are:-

|                                    |    |              |
|------------------------------------|----|--------------|
| Walking                            | .. | .. 72 women. |
| One trip walking and the other bus | .. | .. 13 women. |
| Bus                                | .. | .. 5 women.  |

FIGURE 3.

PIE CHART REPRESENTING THE AVERAGE  
TIME EXPENDITURE PER DAY OF THE 90  
CAREER HOMEMAKERS.

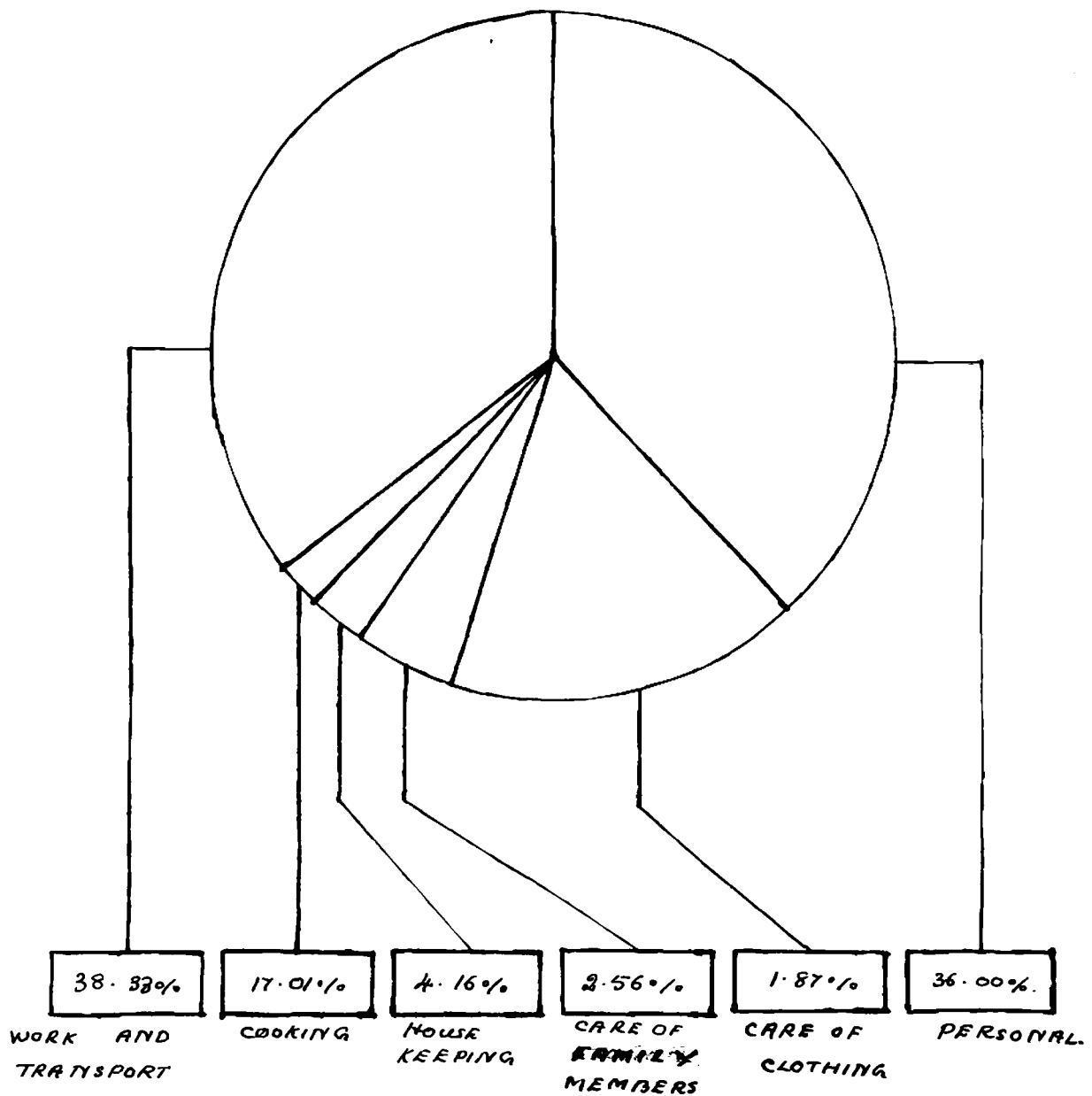


Table II indicates the time spent on transportation by the 90 career homemakers.

**TABLE II**  
**TIME SPENT ON TRANSPORT TO AND FROM THE MILL**  
**BY THE 90 CAREER HOME MAKERS.**

| Time interval |      |      |       | No. of home makers |
|---------------|------|------|-------|--------------------|
| Hrs.          | Mts. | Hrs. | Mts   |                    |
| 0.            | 00   | to   | 0. 29 | 5                  |
| 0.            | 30   | to   | 0. 59 | 23                 |
| 1.            | 00   | to   | 1. 29 | 38                 |
| 1.            | 30   | to   | 1. 59 | 10                 |
| 2.            | 00   | to   | 2. 29 | 12                 |
| 2.            | 30   | to   | 2. 59 | 2                  |

Table II shows that over 50 per cent of the women spend one to two hours in transportation; on an average they spend one hour twelve minutes for travel bringing up the time devoted for outside career to nine hours 12 minutes per day excluding the one hour rest period.

Thus 59 per cent of their total time is taken up by the career. ✓

ii. Management of Home: As can be seen from Figure 2, the 90 career homemakers spend on an average six to seven hours per day

for performing household activities over and above the tea and a half hour devoted to career. This shows that the Indian women spend more time on homemaking activities than women in the U.S.A., where according to Britton (1953)<sup>43</sup> and Herbert (1952)<sup>50</sup> women spend on an average five hours a day on homemaking activities.

This is <sup>also</sup> in conformity with the observation made by Devadas (1962)<sup>55</sup> that Indian women spend 6 hours on household activities.

Of the 90 career homemakers, 12 of them carrying out all the household chores unaided. The rest are helped by children, husbands or other family members. Only two families receive help from neighbours. None has hired help.

|   |      |
|---|------|
| Homemakers receiving help for less than one hour  | : 22 |
| Homemakers receiving help for one to two hours    | : 50 |
| Homemakers receiving help for three to four hours | : 26 |
| Homemakers receiving no help                      | : 12 |

Among the 12 homemakers carrying out their duties unaided, eight have families comprising of two to four members. It is found that they spend on an average 6 hours 30 minutes on household activities. Comparing this group with homemakers similar having family composition and receiving some help, it is found that the homemakers receiving help spend on an average five hours and five minutes in homemaking activities. This proves that when help is rendered, the homemakers' burden is decreased to some extent. However as proved by statistical

analysis (Appendix IV) on Pearson's Product Correlation, Guilford (1956)<sup>59</sup>, between the number of adult members and the time spent by the housemaker, it is found that with increase in number of members, the time spent by the career housemaker also increases, in spite of the help rendered showing thereby that the extra help does not relieve the housemaker of her burden. On similar analysis between the number of children and the time spent by the housemaker, a negative correlation is noted (Appendix V).

It is therefore inferred that if the housemaker has more time at her disposal, she will spend all of it on housemaking activities. As her time is limited, she tries to do as much as she can by selecting those activities of higher priority or does them in a less perfect manner or just leaves some work undone.

Cooking, fetching water to cook, grinding and cutting vegetables are considered as food preparation activities. For these four hours and five minutes are spent on an average per day, constituting two thirds of the total time spent on household activities.

Activities relating to house-keeping are cleaning utensils, cleaning of floor, fetching water for washing and bathing, marketing, account keeping and other household maintenance. On an average the housemakers spend one hour a day on house keeping. Home visits reveal that the houses are kept clean. The number of utensils are just adequate and the housemakers are proud of keeping them clean. Brass water pots are

polished once in two days. On the other hand, surroundings of the houses are neglected.

Care of family members includes activities are such as giving bath to children, dressing and feeding them, care of other family members and serving food. It is found that not much time is spent by homemakers on care of family members. On an average, the women spend only 37 minutes per day on care of family members. In all families adult members are not given any special attention but some attention is given to the children.

Activities related to clothing are washing clothes, ironing and repair. It is found on an average the career home makers spend 27 minutes per day on washing. None of them iron the clothes at home nor do they carryout any clothing construction or repair. All of them wash their clothes and some are assisted by other family members in washing. 'Dhebi' is engaged in one family.

iii. Personal Management: The time spent by the career homemakers for personal management are as follows:

|            | Hrs.Min |
|------------|---------|
| For sleep  | .. 7-05 |
| Recreation | .. 1-12 |
| Personal   | .. 0-22 |

From this we can assess that the time for sleep is adequate for it is found from the study women who get up very early in the morning, go early to bed, thus managing to get adequate rest.

All the homemakers have one hour and twelve minutes per day for recreation which is mainly of the passive type such as chatting and not directed to any creative type of activity. Women say they go to temples, whenever they can. But the hours of work are such that they can not go daily.

W. Holidays: On holidays, in contrast to the daily practice, the homemakers get up only after 6 O' clock, after attending to their personal hygiene, they start preparing the meal. Some of them prepare meals slightly different from their usual routine. The time spent on food preparation is the same as on working days. The special activities carried out on holidays are thorough cleaning and mopping of the house, taking oil bath, giving oil bath to children, visiting sons and daughters or relatives living nearby, visiting cinemas, visiting temples, chatting leisurely with their neighbours and sleeping.

## 2. Methods Employed for Homemaking Activities:

The methods relating to

- a. Cooking,
- b. Cleaning utensils,
- c. Washing clothes,

are noted.

a. Cooking: Rice, the staple food, is cooked by the straining method. Vegetables are bought only once a week. Vegetables are cut, washed and curries prepared.

The meal pattern is simple comprising of rice, a

'kuzhambu' prepared with dhal and a 'periyal', usually of brinjals, ladies-finger and chow chow; some of them use tomatoes. In most families, they break-fast on leftover rice of the previous day, or buy uppama from outside. Only in some families they prepare either 'uppama' or 'idlii'. Most of the housemakers do not have any tiffin along with coffee in the evening. In some homes puffed-rice is provided for their children.

The problems related to cooking on the whole is limited time available for cooking and non-availability of fresh vegetable daily, and improper methods of cooking.

b. Cleaning Utensils: Of the 90 career home makers, 76 women use ash as the cleaning agent, and 20 women use residue of tamarind after extracting juice for some other preparation. Only seven women use brick powder and soapnut powder. All of them use cowdung to clean their mud pots.

The cleaning materials used by them along with the cleaning agent are in the form of coconut fibre which is used by 70 women of the homes, 10 of them use hay and the rest use leaves. Being tired after factory hours is one of their chief problems.

c. Washing Clothes: The common practice to wash clothes is beating them on stones; 67 home-makers employ this method. Only 12 soak their clothes in soap water and rinse them out without beating. 10 knead their clothes, only one family give clothes to 'dhoobi' and does not do any washing at home.

Lack of sufficient water, <sup>no</sup> time to do washing and place to dry the clothers are the problems.

Summary of Household Managerial Problems:

Of the 90 homemakers 74 are aware of their problems relating to household management but they accept them as their lot while 16 are unaware of any problems. In Table III the household managerial problems felt by homemakers are listed according to intensity.

TABLE VII

HOUSEHOLD MANAGERIAL PROBLEMS FELT BY 74 CAREER HOMEMAKERS AND THE ATTRIBUTED REASONS.

| Problems   | Number of homemakers | Attributed reasons  |
|--|----------------------|---|
| 1. <u>Cooking:</u><br>Cooking as a whole<br>Cooking before going to work | 51                   | Have to rush through work;<br>Too tired to cook;<br>A long time is required for cooking;<br>Poor fuel;<br>Poor equipment;<br>Nobody to help in cooking. |
| 2. Not enough time to look after children and talk to family members     | 13                   | Too many hours of work  |
| 3. Marketing   | 3                    | Distance of market too far.   |
| 4. Physical strain and tiredness   | 4                    | Poor health   |
| 5. Fetching water  | 3                    | Water scarcity, distance of water source  |
| 6. Monetary problems   | 2                    | Too many members depending on some income   |
| 7. Not enough time to do the wash work                                   | 2                    | Long hours of work  |

From Table III, it may be derived that time and energy problems seem to be most acute as they are not able to do many jobs simultaneously. Problems relating to cooking as a whole,

cooking in combination with other household activities rank highest among the problems. The other problems such as care of family members, marketing, fetching water and monetary problems were mentioned only by a few.

It can also be seen that the reasons given by the homemakers are related to time and that they cannot do cooking and other jobs simultaneously, as they cannot do them satisfactorily as they have to rush through them. The tediousness in cooking may be due to the use of ordinary chula as proved by Hemalatha (1962)<sup>60</sup> and use of mud pots which consume longer time, as noted by Shantakumari (1962)<sup>61</sup>. Poor equipment and poor fuel stem up from lack of financial resources. Other problems are those pertaining to energy expenditure such as physical strain due to poor health and tiredness due to long hours of work. The solutions to solve the problems as suggested by the homemakers are given in Table IV.

TABLE IV

**SUGGESTION OF 90 CAREER HOME MAKERS WORKING IN A  
TEXTILE MILL TO SOLVE THEIR MANAGERIAL PROBLEMS**

| Suggestions   | No. of home<br>makers. |
|---|------------------------|
| 1. Better equipment to simplify work ..                             | 36                     |
| 2. Less hours of work in the factory<br>for the same wage ..        | 19                     |
| 3. Change in factory time in the morning<br>from 7 a.m to 8 a.m. .. | 16                     |
| 4. More income ..   | 8                      |
| 5. Better fuel ..   | 7                      |
| 6. Extra help for household work ..                                 | 5                      |

From Table IV, except for the suggestion 'Less hours of work for the same wage', all the other suggestions may be implemented easily. All the problems involve better management of time and improvement of work habits. Even the suggestions for more income can be tackled through decreasing the time for household activities and the resulting saving of time can be devoted for subsidiary occupations.

With regard to better equipment in this study, an attempt has been made through the introduction of hay box.

The change in factory hours has already been recommended by Devadas (1962)<sup>33</sup> as a result of her study on mill workers in

industry. An answer to the problem of better fuel is found in the smokeless chula. Hemalatha's (1962)<sup>60</sup> study has opened the way for further research in this field.

### 3. Their attitudes towards work and career

Their attitudes themselves may cause or solve problems. Indicated attitudes of home makers and their attributed reasons which were elicited through interview and observation are given in Table V.

**TABLE V.**  
**INDICATED ATTITUDES AND ATTRIBUTED REASONS OF CAREER WOMEN.**

| Indicated attitudes towards.   | Number of homemakers. | Attributed reasons by homemakers.   |
|--------------------------------|-----------------------|---|
| 1. Work at Home                | 44                    | *Ability, variety of activities, encouragement and appreciation of the family.  |
| Un-interesting                 | 46                    | Routine work, limited resources; lack of experience,  |
| Difficult                      | 33                    | Poor health; tiredness after factory work.  |
| Easy                           | 57                    | Encouragement and help rendered by others.  |
| 2. Work at Factory             | 51                    | *Companionship, the monetary reward.  |
| Interesting                    | 29                    | Monotonous.   |
| Un-interesting                 | 24                    | Physical strain.  |
| Difficult                      | 36                    | Manipulation techniques.  |
| Easy                           |                       |   |
| 3. Advantages                  | 93                    | Supporting family, economic independence, augmenting income better standard of living, money to educate children,         |
| Monetary benefits              |                       | Avoiding quarrel at home, developing friendship.  |
| Social benefits                | 7                     |   |
| 4. Dis-advantages              | 29                    | Children neglected; daughters education deprived* for home-keeping, independent thinking, <sup>leading to</sup> conflicts |
| Family adjusted                |                       |   |
| Health                         | 14                    | Physical strain time saving.  |
| 5. Inconveniences              | 8                     | Children accompany them; <sup>possess</sup> bright fa ding; free milk supply.   |
| Creche-beneficial              | 2                     | Ayah's in-kindness.   |
| Non beneficial                 | 27                    | Preparation of lunch unnecessary.   |
| Center-beneficial              |                       |   |
| Co-operative stress beneficial | 63                    | Purchase of goods on credit, <sup>or</sup> high rates than the local market   |
| Not beneficial                 | 27                    | Transportation difficulties, <sup>or</sup> presence of shady trees.   |
| Rest room not necessary        | 20                    |   |

\* Inferred by the investigator.

Table V indicates that the factory work seems to appeal to the career home makers which may primarily <sup>be</sup> due to monetary returns. This trend may interfere with the peaceful running of the home and the home may tend to be neglected. Therefore all the programmes must be planned and directed towards home making activities more interesting and rewarding.

C. Study of the Effects of Introducing the Hay Box in Ten Selected Homes:

The selected ten home makers have used the hay box twice a day for cooking rice, the cooking vessel used were mud pots. The evaluation of using the hay box for a period of 30 days is in terms of:

1. Quality of food cooked in the Hay Box
2. Other advantages and disadvantages in using Hay Box

1. Quality of Food Cooked in the Hay Box:

Regarding the quality of rice cooked in the hay box, favourable opinion towards the texture and doneness of the rice has been expressed. The colour and texture in their words is expressed as "Jasmine Flowers". They report that the taste of the rice is better than the rice cooked by the other methods. Five have said that the nutrients are preserved by this method of cooking which is a proved fact (FAO Rice and Rice Diets) (1954)<sup>62</sup>.

2. Other Advantages and Disadvantages in using the Hay Box:

All the ten home makers have remarked that the hay box saves time and once the rice is put in the hay box, attention

may be paid to prepare other dishes and carry out other household duties. <sup>on</sup> <sub>A</sub> average the house-makers save one hour and forty minutes a day by the use of hay box in cooking rice.

All have reported that the hay box saves fuel, as it requires only about 10 minutes direct cooking over the fire. They are able to save Rs. 2/- per month on fuel.

All the ten house makers also state that the rice is kept hot for a longer time. Keeping coffee, idli and 'kushambu', not have been tried by a few housemakers and found successful.

Six of the housemakers are of the opinion that there is no danger of scalding oneself as there is no need to lift the vessel in order to strain. Two of them feel that this method is hygienic because it does not require any stirring once it is placed in the hay box. Some housemakers were so impressed as to take initiative to try new preparations. Four housemakers have tried preparations in the Hay Box such as 'tamarind rice', 'Vengal' and 'Sambhar'. The preparations have been found to be quite acceptable though 'Sambhar' to a lesser degree.

One housemaker has even ventured to prepare rice to serve 200 people at a social function (Fig. <sup>24/5</sup> 4). A concrete tub of dimensions 24" X 24" was converted into a hay box. The vessel in which the rice has been cooked is an 'anda' of the measurement of 16" X 23". She reports that twenty five litres of rice was used each time with two and half times of the water and the rice took 2 hours 15 minutes to get cooked.

None of the housemakers express any particular dissatisfaction in using the hay box. Two housemakers mention

FIGURE 4.



A. CONCRETE TUB CONVERTED INTO A DRY BOX.



B. APPRAISAL OF THE PRODUCT.

that if the hay box is opened by their children through curiosity, rice does not get cooked properly. Locking arrangement will solve this problem. One homemaker feels that cooking rice in the hay box, does not provide kanji water to feed her calf.

D. Some Suggestions for Solving the Problem of the Tightly Selected Career Homemakers:

Of the various problems mentioned, solving them may be done at different levels.

1. National level
2. City level
3. Factory level
4. At — Home level

1. National level: The problem of illiteracy and secondary effects arising out of it could be solved only at the national level for which the government is taking adequate steps under the five year plans. The Government of India could also sponsor film strips on work simplification techniques based on new discoveries by experts in the field. The information could be carried to the workers through Ministry of Information and Visual Publicity. The Government of India could also set up a committee in all the industrial centres of the different states, to investigate the working conditions of the working women. The free adult literacy classes organised through the Central Social Welfare Board could be more publicised.

Extension work through the National Extension Scheme, Community Development Blocks and Expanded Nutrition programme could all be extended to the workers. The Labour welfare

Officer appointed by the mill may be helped with information regarding managerial problems at home, nutritional requirements, use of labour saving devices as to equip him to be of greater help to the working women. This will be facilitated if women Welfare Officers are appointed in those industries where more than 50 women are employed. Through research at the various research centres sponsored <sup>by</sup> the Ministry of Scientific and Cultural Affairs the information published by the Inventions Promotion Board of the Scientific Research and Cultural Board could be passed on to the Welfare Officer.

The Industrial Health Advisory Committee of the Indian Council of Medical Research is concerned about the health of the mill workers and the result of the dietary surveys (ICMR, 1961)<sup>69</sup> and their results and suggestions may be passed on to mill authorities who can implement these suggestions on the mill workers.

2. City Level: Certain problems could be tackled only at the city level such as providing adequate water facilities, market places in such locality of dense living. Adult literacy classes may be started by the social or welfare board and other voluntary organisations of the city.

3. Factory Level: The managing authorities of the factories could popularise the amenities provided and impress on their workers. Living quarters for the workers could be provided and when not possible could be acquired near the mill area through the Industrial Housing Schemes which would be of great help to the workers. These quarters could have <sup>installed</sup> fixtures like smokeless chula in the kitchen and also pipe connection, so

as to minimize the time and energy spent by the homemakers on household activities.

4. Home Level: The greater changes could be brought around only through the homemaker herself and her family. Homemakers are aware of their problems and need guidance especially in cooking, sanitation, hygiene and work simplification methods. For all this intensive education programmes must be organised to kindle an awareness of the existing facilities. It devolves on the home-scientists to bear the torch in enlightening the extension workers, teachers and other agencies regarding the scientific discoveries and further the existing research in the light of the existing problems.

## V. SUMMARY AND CONCLUSIONS.

Ninety married career homemakers working in a textile mill in Colabatore were interviewed using a schedule specially prepared to elicit their household managerial problems, and the Hay Box, which is an inexpensive, time, energy and fuel saving device was introduced in ten selected homes to study its effects on home management. The following are the findings of the investigation.

(1) On an average the homemakers spend six hours and nine minutes daily on household activities, of which four hours and five minutes are given for food preparation.

(2) The problems encountered by the career homemakers pertain mostly to food preparation, because of lack of time resulting in inability to work properly, and poor health caused by long hours of work. The remedies suggested by the homemakers are higher income to purchase better equipment and less hours of work for the same wages in the mill.

(3) Many of the career homemakers do not fully utilize the facilities provided to them by the industry such as creche, cooperative store, canteen and rest room. Instilling an awareness of existing facilities will help them to solve many of

the managerial problems on their own.

(4) Use of the hay box resulted in a saving of one hour and forty five minutes on an average per day in cooking, and a net saving of rupees two per month on fuel. It also proved to be an acceptable labour saving device, as well as an incentive towards using new devices by the career home makers.

(5) The problems of the career home makers may be solved with the help of various national organizations, city agencies, Home Science educationists and research workers.

**BIBLIOGRAPHY**

## BIBLIOGRAPHY

1. Ministry of Community Development and Co-operation, Government of India. A GUIDE TO GRAMSEVIKAS AND MUKYA SEVIKAS. New Delhi, 1960, pp. 1 - 2.
2. Devadas, R.P. TEXT BOOK OF HOME SCIENCES. New Delhi, Indian Council of Agricultural Research, 1959, p.4
3. Devadas, R.P. MARRIAGE AND A CAREER. Social Welfare, Vol. III, (July, 1957), pp. 6 - 7.
4. Alva, V. EQUALITY NOT YET A REALITY. Social Welfare, Vol. VI, (August, 1960), pp. 2 - 3.
5. Dutt, A. A PIONEER IN WOMENS' MOVEMENT. Social Welfare, Vol. VIII, (May, 1962), p.3.
6. Sengupta, P. WOMEN WORKERS IN INDUSTRY. New Delhi, Asia Publishing House, 1960, p.5.
7. Giri, V.V. LABOUR PROBLEMS IN INDUSTRY. Bombay, Asia Publishing House, 1958, pp. 374-438
8. Gandhi, M.K. HARIJAN, Harijan Trust, Ahmedabad, (April 1st, 1940), pp. 1-4.
9. Gupta, J.P. LABOUR LEGISLATIONS AND THEIR IMPACT ON WOMEN. Social Welfare, Vol. VII, (August, 1961) pp. 10, 11 & 23.
10. Reichert, A. THE HOMEMAKERS AS EMPLOYED WORKERS. J.H.E., Vol. LXIII, 1961, pp. 18 - 22.
11. Sahay, T. SPECIAL PROBLEMS OF WOMEN IN INDUSTRIES. Social Welfare, Vol. VI, (August, 1960), p.7.
12. Deshmukh, D. REPORT OF THE NATIONAL COMMITTEE ON WOMENS' EDUCATION. Ministry of Education, Government of India, 1959, pp. 115 - 116.
13. Myrdal, A., and Klein, V. WOMENS' TWO ROLES. London, Routledge and Kegan Paul, Ltd., 1956, pp. 29- 30.
14. Weitzel, U.S. THE WORKING WIFE - HER PRESENT DILEMMA. J.H.E., Vol. LIX, 1957, pp. 639 - 693.
15. Nayal, P.D. THE ROLE OF WOMEN POWER IN INDUSTRIAL GROWTH. Social Welfare, Vol. VIII, (December, 1962) p.21.

16. Verma, D.P. EMPLOYMENT OF WOMEN IN INDIA. Social Welfare, Vol. VIII, (March, 1962), pp.11 & 26.
17. ENCYCLOPAEDIA OF SOCIAL SCIENCES. Vol. III, New York, The Macmillan Company, 1959, p.224.
18. THE CONSTITUTION OF INDIA. Delhi, The Government of India Press, 1958, pp. 8 & 25.
19. Oulati, J.S. CAREERS FOR WOMEN. Calcutta, Y.N.G.A. Publishing House, 1956, p.4.
20. Dasai, N. WOMEN IN MODERN INDIA. Bombay, Vera and Company, 1957, p.234.
21. Sengupta, P. IN TRADES AND PROFESSIONS. Women of India, The Publications Division, New Delhi, 1959, p. 246.
22. Devedas, R.P. MEANING OF HOME SCIENCE. Coimbatore, Sri Avinashilingam Home Science College, 1953, p. 4.
23. Newson, J. THE EDUCATION OF GIRLS. London, Labor and Labor Ltd., pp. 35 - 37.
24. Nameria, G.B. SOCIAL PROBLEMS AND SOCIAL DISORGANISATION IN INDIA. Allahabad, Kutab Mahal, 1960, p.305.
25. Gupta, K.D. NEW CAREERS FOR WOMEN. Yojana, Vol. VI, (June, 10th, 1960), p.11.
26. Menon, L.N. ASSESSMENT OF LAWS AFFECTING WOMEN. The All India Women's Conference, thirtieth Session, Surat, 1960, p.38.
27. Achmukh, D. EDUCATION AND WOMENS' WELFARE. Kasturba Memorial, Indore, Kasturba National Memorial Trust, 1962, p.47.
28. Sengupta, P. WELFARE OF WOMEN IN INDUSTRIES. Social Welfare, Vol. VI, (August, 1960), pp.56.
29. INDUSTRIAL LISTENERS FORUM. Paridabad, Government of India, All India Radio, 1962, p.1.
30. Herbert, E.S. WHEN THE HOMEMAKER GOES TO WORK, J.N.E., Vol. LIV, 1950, pp.257 - 258.
31. Contractor, S. PROBLEMS OF WORKING WOMEN IN INDIA. Bharat Sevak, Vol X, (November, 1962), pp.4)-50.

32. **Wheaterofts, M.** HOUSEWORK WITH SATISFACTION. London, The National Council of Social Sciences, Inc., 1960, pp. 13 - 14.
33. **Devadas, R.P.** WOMEN WORKERS IN INDUSTRY. Journal of All India Management Association, (September - October, 1962), pp. 43 - 47.
34. **Food and Agricultural Organization of the United Nations,** NUTRITION AND WORKING EFFICIENCY. Rome, 1962, pp. 1 - 47.
35. **Kent, D.G.** HOMEMAKING IN THE DEFEENCE DECADES. J.H.E., Vol. LIV, 1952, pp. 13 - 14.
36. **Gross, I.H., and Grandall, E.W.** MANAGEMENT FOR MODERN FAMILIES. New York, Appleton - Century - Crofts, Inc., 1954, p.125.
37. **Fitzsimmons, C., and White, H.** MANAGEMENT FOR YOU. New York, J.B.Lippincott Company, 1958, pp. 100 - 110.
38. **Nickell, F., and Dorsey, J.M.** MANAGEMENT IN FAMILY LIVING. New York, John Wiley and Sons, 1960, pp. 90 & 254.
39. **Wood, M.W., Hill, A.D., and Amidon, R.P.** MANAGEMENT PROBLEMS OF HOMEMAKERS EMPLOYED OUTSIDE THE HOME. Washington, United States Department of Health, Education, 1961, p.44.
40. **Child, G.B.** EQUIPMENT AND ITS RELATION TO HOMEMAKING. J.H.E., Vol. VI, 1914, pp. 165 - 169.
41. **Hunts, I.G.** HOW MODERN EQUIPMENT IS CHANGING HOMEMAKING PRACTICES. J.H.E., Vol. LV, 1953, pp.20 - 22.
42. **Thabet, V.** WHAT'S NEW IN EQUIPMENT. J.H.E., Vol. LIX, 1959, p.782.
43. **Raju, S.P.** SMOKELESS KITCHENS FOR THE MILLIONS. Madras, The Christian Literature Society, 1957, p.1
44. **Devadas, R.P.** MEALS READY IN AN HOUR. Extension, Vol. I, (October, 1960), p.24.
45. **Snail, J.C.** MOTION STUDY AND COSTING IN HOUSEHOLD AND HOME ORGANISATION. J.H.E., Vol. XIV, 1922, pp. 418 - 420.
46. **Otis, D.H.** THE HOMEMAKERS RESPONSIBILITY FOR SECURING LEISURE. J.H.E., Vol. XV, 1923, p.555.

47. **Nystrom, M.H.** ECONOMIC PRINCIPLES OF CONSUMPTION. New York, The Ronald Press Co., 1929, pp.437 - 439.
48. **Britton, V.** GAINFULLY EMPLOYED HOMEMAKERS. J.H.E., Vol. XXX, 1958, pp.467 - 469.
49. **Anderson, S.C., and Fitzsimmons, C.** USE OF TIME AND MONEY BY EMPLOYED HOMEMAKERS. J.H.E., Vol. LXII, 1960, pp.452 - 455.
50. **Gross, I.H., Aikin, A., Tordt, I., Zwemer, E.A., and Saton, W.D.** A STUDY OF THREE METHODS OF RESEARCH IN HOME MANAGEMENT. U.S.A., Michigan State College, pp.3 & 19.
51. **Good, G.V. and Seates, D.E.** METHODS OF RESEARCH. New York, Appleton - Century - Crofts, Inc., 1954, p.638.
52. **Young, P.V.** SCIENTIFIC SOCIAL SURVEY AND RESEARCH. New York, Prentice-Hall, Inc., 1955, p.207.
53. **George, P.I.** INTERVIEWING AS A PROGRESS IN SOCIAL WORK. Social Welfare, Vol. IX, (March, 1963), p.6.
54. **Avery, M.** HOUSEHOLD PHYSICS. New York, The Macmillan Company, 1957, p.176.
55. **Lushpa, V.** A STUDY OF THE EFFICACY AND ECONOMY OF HAY BOX AN IMPROVED FUELLESS COOKER. Unpublished Master's Thesis, University of Madras, 1962, p.81.
56. **Devadas, R.P.** YES YOU CAN COOK WITHOUT FUEL, Extension, Vol. I, 1960, pp.25 - 28.
57. **Anandam, K.** COOKING WITHOUT FUEL. Home Science Workshop, Held at Sri Padmavathy College for Women, Thirupathi, 1962, p.8.
58. **Ritchie, J.A.S.** TEACHING BETTER NUTRITION. United States Food and Agricultural Organisation, Nutrition Studies, Vol. LXVI, 1950, p.59.
59. **Guildford, J.P.** FUNDAMENTAL STATISTICS IN PSYCHOLOGY AND EDUCATION. London, MacGraw-Hill Book Company, Inc., 1956, pp.229-239 & 285-288.
60. **Hemalatha, P.** SOME MANAGEMENT ASPECTS OF ORDINARY CHULA AND SMOKELESS CHULA AS COOKING DEVICES. Unpublished Master's Thesis. University of Madras, 1962, p.69.
61. **Shantakumari, S.S.V.** A COMPARATIVE STUDY OF ALUMINIUM, STAINLESS STEEL, BRASS AND PARCHENWARE COOKING UTENSILS WITH REGARD TO PALATABILITY OF FOODS AND TIME AND MONEY MANAGEMENT. Unpublished Master's Thesis, University of Madras, 1962, p.67.

62. Food and Agricultural Organization of the United States,  
Rome, RICE AND RICE DIRTIS. 1954, pp.21 - 22.
63. THE INDIAN COUNCIL OF MEDICAL RESEARCH. New Delhi,  
The Industrial Health Advisory Committee of  
India, 1961, p.22.

**A P P E N D I C E S**

SRI AVINASHILINGAM HOME SCIENCE COLLEGE

COIMBATORE. 11

Questionnaire to elicit information regarding managerial  
problems of Homemakers working in Factories.

| Serial No. ....                     | Date of interview.....                    |
|-------------------------------------|---|
| 1. Name of Homemaker                | ---                                       |
| 2. Address                          | ---                                       |
| 3. Caste                            | ---                                       |
| 4. Marital Status                   | ---                                       |
| 5. Age                              | ---                                       |
| 6. Education                        | ---                                       |
| 7. Date of entertainment in Service | ---                                       |
| 8. Reasons for taking up the job    | ---                                       |
| 9. Designation                      | ---                                       |
| 10. Number of working hours/day     | ---                                       |
| 11. Number of working days/month    | ---                                       |
| 12. Type of payments:-              | Daily<br>Weekly<br>Fortnightly<br>Monthly |
| 13. Income/month                    | ---                                       |
| 14. Income from other sources:-     |   |
| a) Land                             | ---                                       |
| b) Other sources                    | ---                                       |

22. Activities carried out during the afternoon break period.

| Activity | Time Spent |
|----------|------------|
|          |            |

| Activities   | Frequency |       | Time Spent |       | Persons who share the work | Actual time spent on the activity |       |                      |       |
|--|-----------|-------|------------|-------|----------------------------|-----------------------------------|-------|----------------------|-------|
|  | Before    | After | Before     | After |                            | Assisting Home-maker              | Alone | Assisting Home-maker | Alone |
| <b>b) <u>Care of House:</u></b><br>1. <b>Sweeping</b><br>2. <b>Mopping</b><br>3. <b>Smearing cowdung</b><br>4. <b>White-Washing</b><br>5. <b>Interior Decoration</b> |           |       |            |       |                            |                                   |       |                      |       |
| <b>c) <u>Account Keeping</u></b><br>1. <b>Plan of Expenditure</b><br>2. <b>Preparing Market Lists</b><br>3. <b>Marketing</b><br>4. <b>Maintaining Accounts</b>       |           |       |            |       |                            |                                   |       |                      |       |

| Activities                | Frequency |       | Time Spent |       | Persons who share the work |                      |       | Actual time spent on the activity |       |                      |       |  |
|---------------------------|-----------|-------|------------|-------|----------------------------|----------------------|-------|-----------------------------------|-------|----------------------|-------|--|
|                           | Before    | After | Before     | After |                            | Assisting Home-maker | Alone | Assisting Home-maker              | Alone | Assisting Home-maker | Alone |  |
| 2. Care of other Members: |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| a) Serving Food           |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| b) Recreation             |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| c) Other Activities       |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| ██████████                |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| ██████████                |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| ██████████                |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |
| ██████████                |           |       |            |       |                            |                      |       |                                   |       |                      |       |  |

| Meals  | Items                | Amounts used |
|--------|----------------------|--------------|
| Dinner | 1.<br>2.<br>3.<br>4. |              |

26. Methods of cleaning vessels:

| Cleaning Agents  | Cleaning Materials   |
|--|--|
| a. Sand<br>b. Ash<br>c. Brick Powder<br>d. Soapnut Powder<br>e. Soap<br>f. Tamarind<br>g. Others | a. Brush<br>b. Cloth<br>c. Coconut fibre<br>d. Leaves<br>e. Broom<br>f. Others |

27. Methods employed for washing clothes:

- a. Soaking in soap and rubbing.
- b. Kneading
- c. Beating:-
  - 1. With stick
  - 2. On stone
- d. Steaming
- e. Other methods:
  - 1.
  - 2.

**32. Indebtedness.**

| Sources of Indebtedness | Amount | Method of Payment | Interest |
|-------------------------|--------|-------------------|----------|
|                         |        |                   |          |

**33. Problems encountered in managing the home.**

| Problems | Reasons | Suggestions for improvement |
|----------|---------|-----------------------------|
|          |         |                             |

**34. Are the amenities provided by the factory helpful ?**

| Facility              | Reasons |
|-----------------------|---------|
| 1. Creche             |         |
| 2. Canteen            |         |
| 3. Rest Room          |         |
| 4. Cooperative stores |         |
| 5. Others             |         |

**APPENDIX II**

**QUESTIONNAIRE TO ELICIT THE ATTITUDES OF HOME MAKERS  
REGARDING THE USE OF HAY BOX.**

1. Name of Home maker.
2. Ticket No.
3. Number of times rice was cooked using the Hay box.
4. Type of vessel used for cooking
  - a. Earthenware vessel.
  - b. Aluminium vessel.
  - c. Brass vessel.
5. Quality of the cooked food.
  - a. Texture of food --  
Soggy  
Single grains.  
Lumpy.
  - b. Taste of the food --  
Good  
Fair  
Bad
  - c. Doneness --  
Well cooked  
Over cooked  
Under cooked

**6. Advantages of using the Hay Box.**

**7. Disadvantages of using the Hay Box.**

APPENDIX III

EFFECT OF SIZE OF FAMILY ON THE MANAGERIAL PROBLEMS  
OF HOMEMAKERS

| Problems<br>Size of family | 0 to 1 | 2 to 3 | Total |
|----------------------------|--------|--------|-------|
| 0 to 2                     | 14     | -      | 14    |
| 3 to 5                     | 31     | 9      | 40    |
| 6 to 8                     | 14     | 13     | 27    |
| 9 to 11                    | 4      | 5      | 9     |
| Total                      | 63     | 27     | 90    |

$$f_e = \frac{\text{Row Total} \times \text{Column Total}}{\text{Total}}$$

90

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = 10.9$$

Significant at 5% level.