Nutrition Education Needs Assessment for Licensed Group Day Care Centers in the State of Utah

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NUTRITION EDUCATION NEEDS ASSESSMENT FOR
LICENSED GROUP DAY CARE CENTERS
IN THE STATE OF UTAH

by

Almina Barksdale

A thesis submitted in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE
in
Home Economics and Consumer Education

Approved:

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Almina Barksdale
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>2</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>2</td>
</tr>
<tr>
<td>REVIEW OF LITERATURE</td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Historical Background</td>
<td>4</td>
</tr>
<tr>
<td>Social Pressures Leading to Present Day Legislation</td>
<td>5</td>
</tr>
<tr>
<td>Present Day Legislation</td>
<td>11</td>
</tr>
<tr>
<td>Present Status of &quot;Nutrition Education&quot; in Day Care</td>
<td>14</td>
</tr>
<tr>
<td>Summary</td>
<td>16</td>
</tr>
<tr>
<td>METHODOLOGY</td>
<td>18</td>
</tr>
<tr>
<td>Procedure</td>
<td>18</td>
</tr>
<tr>
<td>Sampling</td>
<td>18</td>
</tr>
<tr>
<td>RESULTS</td>
<td>20</td>
</tr>
<tr>
<td>Introduction</td>
<td>20</td>
</tr>
<tr>
<td>Demographic Information</td>
<td>21</td>
</tr>
<tr>
<td>Data Collected</td>
<td>24</td>
</tr>
<tr>
<td>DISCUSSION AND RECOMMENDATIONS</td>
<td>31</td>
</tr>
<tr>
<td>Discussion of the Results</td>
<td>31</td>
</tr>
<tr>
<td>Recommendations</td>
<td>33</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>35</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>37</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>40</td>
</tr>
</tbody>
</table>

iii
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Size and Location of Day Care Centers</td>
<td>22</td>
</tr>
<tr>
<td>2. Age Categories of Students in Day Care</td>
<td>23</td>
</tr>
<tr>
<td>3. Nutrition Education Concepts in Day Care Curriculum and Percent Use by &quot;Yes&quot; Respondents</td>
<td>24</td>
</tr>
<tr>
<td>4. Types of Discovery Activities Centered Around Food Items and Percent Use by &quot;Yes&quot; Respondents</td>
<td>25</td>
</tr>
<tr>
<td>5. Resources Used in Day Care Nutrition Education</td>
<td>26</td>
</tr>
<tr>
<td>6. Availability of Audio Visual Equipment in Day Care Centers and Percent Use by &quot;Yes&quot; Respondents</td>
<td>27</td>
</tr>
<tr>
<td>7. Educational Level of Day Care Personnel Working with the Children</td>
<td>28</td>
</tr>
<tr>
<td>8. Resource Materials Requested for Use in Day Care Nutrition Education</td>
<td>29</td>
</tr>
<tr>
<td>9. Day Care Center's Cooperation with Training Program</td>
<td>30</td>
</tr>
</tbody>
</table>
ABSTRACT

Nutrition Education Needs Assessment for
Licensed Group Day Care Centers
in the State of Utah

by

Almina Barksdale, Master of Science
Utah State University, 1980

Major Professor: Marie N. Krueger
Department: Home Economics and Consumer Education

In November 1977 Congress established the Nutrition Education and Training Program (NETP) with the passage of Public Law 95-166. Section 227.37 of the NETP Regulations (1978) mandates that each state establish a plan of action for the use of any federally appropriated funds earmarked for "nutrition education", and further, the plan should contain a proposal to instruct all students in the state about the nutritional value of foods as well as the relationship between food, nutrition, and health. Section 19 of Public Law 95-166 stipulates a "needs assessment" as one of the components of NETP and that each state conduct such assessments.

The purpose of this study is to furnish the Utah State Office of Education Nutrition Specialist information about the "Licensed Group
Day Care Centers regarding:

1. the nutrition concepts taught;
2. the methods and strategies used;
3. the educational level of day care personnel;
4. the State Office of Education Nutrition Specialist's role in day care;
5. the day care center's cooperation for nutrition inservice training of the faculty; and,
6. the day care center's cooperation with secondary/university training programs.

A review of literature indicates that little has been done to evaluate day care programs with regard to "nutrition education". Before the establishment of Public Law 95-166 Federal and State licensing, guidelines were vague and did not stipulate "education" in their nutrition regulations.

Results of a mail survey show that 89.1% of the responding centers teach some nutritional concepts. Cooking and tasting experiences, along with pictures and stories, were the main activities used by the centers. The most requested teaching aids were puppet and flannel board stories, songs, pictures, and food recipes. This survey shows the majority of the teachers are college educated and have some nutritional training.
INTRODUCTION

Statement of the Problem

In 1977, Congress established the Nutrition Education and Training Program (NETP) with the passage of Public Law 95-166. Section 227.37 of the NETP Regulations (1978) mandated that each state establish a plan of action for the use of any federally appropriated funds earmarked for "nutrition education," and further, the plan should contain a proposal to instruct all students in the state about the nutritional value of foods as well as the relationship between food, nutrition, and health. Section 19 of Public Law 95-166 stipulates a "needs assessment" as one of the components of NETP and that each state conduct such assessments. The guidelines for setting up a "needs assessment" were published in June 1978 by the United States Department of Agriculture.

Ullrich (1978) indicates the intention of Public Law 95-166 is to assure children the access to nutritional information which will assist them in making good food choices. With this objective in mind an assessment of current practices is needed to provide the basic data from which the Nutrition Specialist can identify needs and plan the State's program. In addition, this assessment will identify a baseline from which to evaluate certain aspects of the program. "A needs assessment is but the first component of a viable child advocacy program" (Goldmeier, 1978, p. 33).

If the State Nutrition Specialist is to comply with Federal regulations to reach all students with "nutrition education," efforts must be made to include children in public and private schools as well as child
care institutions. However, a review of literature indicates little has been done to evaluate day care programs for "nutrition education". Furthermore, Federal and State nutrition guidelines are vague and do not stipulate "education" in their regulations, thus making a "needs assessment" necessary.

Purpose of the Study

It is the purpose of this study to survey all ninety-eight "Licensed Group Day Care Centers" in the State of Utah to determine:

1. the nutrition concepts taught;
2. the methods or strategies used;
3. the educational level of day care personnel;
4. the State Office of Education Nutrition Specialist's role in day care;
5. the day care center's cooperation for nutrition inservicing of the faculty; and,
6. the day care center's cooperation with secondary/university training programs.

Definition of Terms

1. Public Law 95-166.

An Act to amend the National Lunch Act and the Child Nutrition Act of 1966 in order to . . . authorize the Secretary of Agriculture to carry out a program of nutrition and education as part of food service programs for children conducted under such Acts, and for other purposes (Public Law 95-166, 95th Congress, Nov. 10, 1977).

This law established the Nutrition Education and Training Program (NETP).

2. Needs assessment. "A systematic process for identifying and analyzing discrepancies between what 'should be' and what 'is'"
3. State plan. For this study it is a plan of action developed by the State Office of Education Nutrition Specialist for the use of the Federal funds appropriated by Public Law 95-166 for the National Education Training Program.

4. "Licensed Group Day Care Center"/day care/day care centers. For this study it is a child care facility approved and licensed by the State of Utah.

5. Nutrition education. For this study it is the teaching of nutrition concepts to aid the understanding of the effects of food on the body.

6. Inservicing. For this study it is a training workshop for the purpose of acquainting the faculty of day care centers with new methods and concepts of "nutrition education".

7. Urban centers. For this study they are centers located in populated areas of over 25,000 based on the 1970 United States census.

8. Rural centers. For this study they are centers located in populated areas of under 25,000 based on the 1970 United States census.
REVIEW OF LITERATURE

Introduction

Today, because of the increasing concern of working mothers about the welfare for their preschool children and the national concern of rising costs, along with the growing knowledge through research of child development, there is an exploding demand for day care. In the HEW report the statement is made:

Children are America's most precious resource for they are the future. How they spend their formative years is an important concern of the public and of public policy...Eleven million children under the age of 14 are spending much of that crucial time away from their parents in day care centers (HEW, 1978, p. 1)

This demand placed day care on the national agenda resulting in the passage of Public Law 95-166.

Historical Background

From its beginning, over a hundred years ago, day care has had as its primary objective the physical care of children: health, nutrition and safety. However, Steinfols (1973) describes the early American attempts at day care as being not much more than custodial. She explains:

Every description that remains of these early day nurseries suggests to the modern eye a child care service more custodial than educational or developmental. Yet despite their limited knowledge they began in the years before World War I to examine seriously the components of quality care and made substantive efforts to improve child care provided in the day nurseries (p. 52).

In 1917 the Day Nursery Association of New York attempted to improve day care services by publishing a simple list of standards. One item
on nutrition stated: "All children should be given two meals a day"
(Steinfols, 1973, p. 53). Other parts of the country, such as California
in 1917 and Cleveland, Ohio, in 1918, passed similar regulations to
improve nutrition standards in day care.

Throughout the 1920's and 1930's day care attracted professional
teachers and social workers whose goals had the components of quality
care: health, nutrition, mental hygiene, education and social services
(Steinfols, 1973). In 1933, President Franklin D. Roosevelt made funds
available for the expansion of day care more to supply jobs during the
depression than to care for children. However, the need for day care
decreased during this time only to be revived during World War II when
the nation called upon women to join the labor force. Private companies,
such as the Kaiser's ship building yards, established day care centers
for their working mothers. Steinfols (1973) explains these situations
were still not much more than babysitting in nature.

Alschuler (1942) reports that, at this time, no real attempts were
made to supply "nutrition education" to the children, instead emphasis
was placed on the socialization of the meal hours. However, she states:

From the beginning of the Child Care concept emphasis
has been on nutrition - the feeding of children. If
there was a nutritionist on the staff, she was responsible
for the planning of meals and supervision of the cook's
preparation of the food (p. 91).

At the end of World War II most of the centers were closed but the need
for day care continued to exist because many women did not give up
their jobs.

Social Pressures Leading to Present Day Legislation

From 1945 to the early 1960's, day care was a marginal child welfare
service which did not begin to meet the nutrition and health needs of children or ease the concerns of working mothers. Steinfols (1973) reports that by 1965 social pressures triggered by four events created a new thinking about day care. These four events were:

1. the indissoluble bonds linking mother and child;
2. the women's liberation movement;
3. the continuing research on child development which has strongly indicated that a child's preschool years are crucially important for his emotional, cognitive and social development; and,
4. the desire on the part of the government officials to control the rising cost of welfare (pp. 76-77).

Blackstone (1973) suggests there were three influences behind these social pressures listed by Steinfols (1973), and indicates the first and most important influence was the empirical studies and experimentations of several psychologists. Although Blackstone makes no mention of these psychologists, she does say that their studies indicate "children's environmental experiences largely determined their intellectual as well as emotional development, and that these experiences were most crucial during the child's earliest years" (p. 12).

Other research shows nutrition is related to the well-being of an individual. Conger and Rose (1979) report the works of Swiss psychologist Jean Piaget and of American psychologists Jerome Bruner and J. McViker Hunt as having tremendous influence in pointing out the early and rapid cognitive development of children. These psychologists discovered that half of a child's intellectual development is achieved by age four. Larson (1971) states:
If a child is listless and apathetic because of a poor diet - whether it is due to the lack of food, or to insufficient amounts of the right foods - it will be very difficult for him to learn or progress very much (p. 10).

A study by McKay et al., (1970) carried out in Columbia with families of marginal economic conditions concluded that the cognitive ability of nutritionally deprived children was improved dramatically by a program combining nutrition, health care and education features.

Twardosz, Cataldo and Risley (1975) state:

One of the basic components of quality care is nutrition. Recent studies have pointed to nutrition as probably the most important factor in determining a child's growth, functioning and resistance to disease (p. 129).

Raman (1975) suggests that although the role of nutrition may be self-evident to researchers in the biomedical disciplines, it represents a major concept for consideration in the academic performance and behavior of the child. Raman (1975) also points out that, until recently, both psychologists and educators have neglected the area of nutrition.

The second influence on the social pressures as reported by Steinfols (1973) was the rediscovery of poverty in the age of affluence. Blackstone (1973) reports the phenomenon of the child living in overcrowded and decrepit housing, on an inadequate diet, sometimes in poor health and without access to adequate medical care, suddenly became public knowledge. In 1974 Senator George McGovern's Select Committee on Nutrition and Human Needs confirmed Blackstone's theory and exposed to everyone the heartbreaking tragedy of hunger in many parts of the nation.

Dr. George M. Briggs also warned of the extensiveness of malnutrition in the country and says that "the American diet is a 'national disaster'"
An attempt to eradicate this second influence the National Proverty Program, aimed at improving the nutritional standards of the poor, came into being.

The third influence behind the social pressures mentioned by Steinfols (1973) came from educational research. Blackstone (1973) reports a growing confirmation of poor educational performance among children of the lower working class. In May of 1965 the Children's Bureau, Department of Health, Education and Welfare, held a national conference on day care services where a variety of speakers took a positive look at what day care might do for children. All speakers had a common theme - that of improving and making available day care opportunities. Steinfols (1973) reports that the most important presentation at the conference was by Mary Dublin Keyserling, director of the Women's Bureau, United States Department of Labor. Keyserling recommended in her address entitled The Nation's Working Mothers and the Need for Day Care the following:

Society, no less than the individual, pays a terrible price for the lifetime blight which follows all too often from inadequate child care. And because we believe so strongly that a fair start in life is the birthright of every American, we are resolved to face up more realistically than ever before to the hard and inescapable fact that, as a nation, we are not fulfilling this essential promise of our democracy for all too many of our nation's children (Steinfols, 1973, p. 80).

Blackstone (1973) contends that as a result of opinion formed by the above mentioned first influence (environmental experiences determining the intellectual and emotional development of a child) and the third influence (poor educational performance among lower working class children). Head Start, a preschool educational program, became a central
part of the National Poverty Program. Steinfols (1973) reports that Congress, in 1969, amended the Social Security Act to provide funds for day care thus creating the Head Start program as a result of a striking growth of day care centers and a wealth of new information on how children learn. She states that Head Start programs served to minimize the fears about mother-child separation. Head Start also rekindled government interests for showing that child care could be educational as well as custodial. Steinfols reports further that although Head Start centers were criticized for being nothing more than babysitters, their ultimate contribution to day care has been to underline the need for education in programs for children.

Blackstone (1973) quotes one objective of the Head Start program:

The Head Start program for three to five year olds had better nutrition as one of its objectives to provide nutritious hot meals and snacks in order to eliminate under-nourishment among poor children, and to advise parents on how to provide them with a well-balanced diet (p. 16).

Blackstone interprets this objective as providing "nutrition education" for parents but not for the child except indirectly through the food served and eaten.

The National Nutrition Education Conference held in 1971 by the United States Department of Agriculture and the Interagency Committee on Nutrition Education gives further support to Blackstone's theory regarding the effects of social pressures on the nations contemplating day care. Moore (1971) reports on this conference in the Headstart Newsletter 1971 and states "the first consideration was the values, life styles, eating habits and health of youth. This group may have the poorest nutrition habits of any group in the United States" (p. 12).
One of the conclusions of the conference was that food eating habits start early in life; however, to be effective in the development of good food habits "nutrition education" must be a part of the learner's real life situation.

Social pressures, previously mentioned by Steinfols (1973) of the Women's Liberation Movement and the indissoluble bonds linking mother and child have added further to the need for adequate day care. Steinfols (1973) reports that in 1965 there were approximately 890,000 three and four year olds enrolled in preschools and in 1970 the figures rose to 1,150,000. Auerback-Fink (1977) also reports statistics of the Women's Bureau of the United States Department of Labor showing steadily increasing percentages of mothers entering the labor force. She states "in 1940, one mother in eight worked outside the home but by 1970, one half of the nation's working mothers worked full or part-time. This shows a gain of sixty percent during the decade" (p. 14).

Most parents are concerned about their children eating adequate, well balanced meals, and assume that because nutritious meals are made available in day care, the children will eat the variety of foods placed before them (Phillips, Bass, and Yetley, 1978). Cooper, Payne, and Edwards (1971) cite a 1969 study by Rockwell and Endres who state that just because a balanced meal is available there is no guarantee the food will be eaten.

Auerback-Fink (1977) reports on a survey, Mother's Expectations of Child Care by Mary Keyserling, director of the Women's Bureau, United States Department of Labor. In this survey the mothers contacted expected "good, basic food which is satisfying to the children and
attractively served" (p. 19). She also says that the mothers hoped their children would experience new foods, and delight in trying something never eaten before. Furthermore, the mothers desired their children to have familiar foods while not wanting family customs and traditions minimized.

Present Day Legislation

The fourth social pressure, as mentioned by Steinfols (1973) was that of "the desire on the part of the government officials to control the rising cost of welfare" (p. 77). This concern has led to considerable national interest in day care. As a result of this interest, congress has passed a number of bills governing child care.

Steinfols (1973) reports that the Comprehensive Child Development Act (Title V of the Economic Opportunity Amendments of 1971), introduced by Senator Mondale and Representative John Brademas, passed both Senate and House but was vetoed by President Nixon. This bill was intended to extend the scope of Head Start. Steinfols (1973) states:

The bill went beyond the work-oriented economic patchwork to offer another justification and organizing concept for Day Care, namely child development. The first hope was to break the 'poverty cycle': if children were given good medical care, sound nutrition, and a stimulating environment in their earliest, most impressive years, then perhaps widespread retardation, medical problems, and school failure might not handicap the children presently condemned to becoming second and third generation welfare recipients (p. 18).

President Nixon vetoed this bill as having "family weakening" implications, preferring to extend day care centers for children of the poor in order to help parents leave welfare rolls.

Congress struggled with the issue for several more years. Finally, in 1974 the Child and Family Services Act gave assurance that any
services funded would be of quality consistent with the 1968 Federal Interagency Day Care Requirements. Various States' agencies have complied with this Federal law in establishing nutrition guidelines for the feeding of children. Twardosz et al., (1975) cites two examples of States' compliance:

1. The State of Alabama requires children between one and three years of age be offered a balanced noonday meal which includes fruit juice and milk, and that food cannot be withheld or forced.
2. In Tennessee, children in day care centers for four hours or longer must be provided a noon meal and one snack, meeting one-third to one-half of the daily nutritional requirements; a meal and two snacks must be served if the child is there longer than eight hours (pp. 129-130).

The State of Utah's Licensing Standards for Child Care specifies:

Children in the Child Care Center shall receive meals and snacks based on their individual need, appetite, age, and length of stay in the center (Section IIR706).

All of these Federal and State nutrition guidelines provide for the feeding of children but make no mention of "nutrition education."

A few surveys have been made on the status of health and nutrition services for children in day care. Chang, Zukerman, and Wallace (1977) report the results of a survey made in 1962 by Morris and colleagues in Chapel Hill, North Carolina. This survey found an "extremely limited program" (p. 471) for day care. In 1977 Chang et al., surveyed day care centers in Berkeley, California, and found that 48% of the centers responding had nutrition or dietician services but only used them occasionally for consultation in planning and implementing a nutrition program. Also, 46% of the centers had no nutrition services. Chang et al., (1977 concluded that the survey in
Berkeley confirmed previous findings of investigators in other communities that "great needs exist in the planning, improvement and provision of health and nutrition services for children in day care centers" (p. 476).

In June 1978 the United States Department of Health, Education and Welfare published a report of findings and recommendations titled the Appropriateness of the Federal Interagency Day Care Requirements (FIDCR). The purpose of the FIDCR is "to define a set of day care characteristics that protect and enhance the well-being of children enrolled in federally funded day care programs" (p. 169). The goals of FIDCR relate specifically to the needs of children who are in day care and state "day care should insure the health and physical safety of the children, including the availability of adequate nutrition and health care" (p. 169).

However, chapter two, Section VI of this report indicates that although the children are getting the required food, the quality is not adequate and that the providers lack a basic understanding of good nutrition.

The FIDCR nutritional requirements mandates only that the child be provided meals and snacks. In comparison the Head Start nutritional standards have gone beyond the FIDCR by mandating that meal and snack times should be an opportunity for the child to learn about the relationship between nutrition and health. In addition, programs are instituted by the facility to acquaint parents with basic nutritional information. Many child care experts feel these latter objectives should be included in the FIDCR nutrition requirements (HEW, 1978, p. 72).

Leverton (1974) defines "nutrition education" as "a multidisciplinary process that involves the transfer of information, the development of motivation, and the modification of food habits where needed" (p. 17).

As a result of these and other studies and reports, Senator George McGovern at the 1974 Hearings on Nutrition and Human Needs, pointed out that
"clearly we need an extensive program of nutrition education in America today" (p. 22).

Present Status of Nutrition Education
In Day Care

Review of literature reveals that no evaluative studies have been made with regard to teaching nutrition to preschool children; however, even before the passage of Public Law 95-166 and the Nutrition Education and Training Program in 1977 mandating the teaching of nutrition, there were attempts being made in some day care centers to provide "nutrition education". One study for Kindergarten through sixth grade (K-6) by Cook, Eiler and Kaminaka (1977) defines "nutrition education" as "the study of the role food plays in our lives and how our bodies use it" (p. 131) and that attempts are being made to teach nutrition concepts to children.

Ferriera (1973) explains how some children have developed a dislike for certain foods due to home pressures and use food as a tool to please or displease parents by eating or not eating. She also indicates that some centers are attempting "nutrition education" programs. Ferriers suggests that children and mothers can bring their own cultural background into the cooking program of the day care center. In this way children may be introduced to foods they have never seen or tasted. Caliendo and Sanjur (1974) made a study entitled Dietary Status of Preschool Children from an Ecological Approach. One variable which had influenced the dietary quality of the preschool child was the mother's "nutrition education". So, nutrition classes for mothers were introduced. By changing the mother's attitude the dietary status of their preschool children was improved. The conclusion was made that it is probably the
process of education which determines behavioral change.

Another study by Burt and Hertzler (1978) explores how the father influences his child's food preferences. While the mother has become the candidate for "nutrition education", the study showed that both mother and father influence the child's food preferences equally. The results suggest that "nutrition education" efforts may be more successful if they are geared to the total family. Conger and Rose (1979) also suggest that from experiences in the day care center, children can teach their parents about nourishing food. Children and parents can learn from each other.

Marion (1976) tells of a successful program using touch, taste and smell as a way to put nutrition into a preschool education program. Activities can be planned for any food about which children have little or no knowledge. Witherell (1978) cites a case history about Timmy who graduated from pretzels and potato chips to liver and lettuce because of a "nutrition education" program in his day care center. His teachers worked to educate both Timmy and his mother at the same time. Witherell reports that "reaching children such as Timmy is half the ball game. Affecting a change in the parents' attitudes and nutritional habits made a home run" (p. 15).

A film by Head Start, entitled Jenny Is a Good Thing, focuses on nutrition and has successfully been used as a tool not only for teaching children but also for training adults. It was nominated for an "Oscar" for the best documentary film in 1969, and has received a number of American and International awards (Head Start Newsletter, 1971).
A unique and very successful "nutrition education" program for preschoolers has been developed in the State of Washington. Schlick (1976) tells how the Yakima Home Economics Association developed a series of booklets centered around a character called Kim. The Kim booklets are geared to the preschool age and have won national acclaim for their ability to teach children about nutrition. They are part of a comprehensive nutrition program in day care aimed at improving family food habits.

Nutritionally adequate diets receive priority in "Licensed Group Day Care Centers" since this aspect of the program is regulated by the licensing laws. Because of the Public Law 95-166 "nutrition education" will need to become part of the day care center's daily curriculum.

Summary

From the beginning of the day care concept, emphasis has been placed on providing custodial more than educational services for preschool children of working mothers. Not until the 1960's, when several social pressures began to manifest themselves, did the thinking about day care start to change. There was concern by government agencies over increasing welfare participants and the poverty cycle they represented, concern by educators regarding early childhood development, and concern for children as mothers were being swept up in the Women's Liberation Movement. These concerns were validated as studies were beginning to show that the cognitive as well as the emotional development of children begins at an early age and that proper nutrition is a vital part of that development.
Only in the last decade has the significance of nutrition in the education of very young children been understood. Therefore, the ignorance of sound nutrition information by parents as well as caregivers has become the target of current legislation. Public Law 95-166 established a Nutrition Education and Training Program (NETP) and in June 1978 the United States Department of Health, Education and Welfare published guidelines for this program. Section 227.37 of the NETP Regulations (1978) mandates that each state establish a plan of action for the use of the federal funds appropriated for "nutrition education" and that the plan include a proposal for reaching all students in the state with instruction about the nutritional value of foods as well as the relationship between food, nutrition and health. Section 19 of Public Law 95-166 stipulates that a "needs assessment" is one of the components of NETP and that each state conduct such assessments.
METHODOLOGY

Procedure

A self-administered questionnaire (see Appendix p. 42) was developed and mailed to all ninety-eight "Licensed Group Day Care Center" directors in the State of Utah for the purpose of discovering:

1. the nutrition concepts taught;
2. the methods or strategies used;
3. the educational level of day care personnel;
4. the State Office of Education Nutrition Specialist's role in day care;
5. the day care center's cooperation for nutrition inservicing of the faculty; and,
6. the day care center's cooperation with secondary/university training programs.

The questionnaire was designed in such a manner that the respondent needed to spend only a minimal amount of time in answering it. The questionnaire used the contingency question format allowing space for a written response.

Sampling

As a pilot sampling the questionnaire was mailed to six of the ninety-eight "Licensed Group Day Care Center" directors. These six were randomly selected for the purpose of testing the instrument. Few revisions were necessary. The questionnaire was then mailed to the other ninety-two "Licensed Group Day Care Center" directors.
Because the population of "Licensed Group Day Care Centers" was relatively small in number, it was possible to survey the entire group. As a part of this "needs assessment" all "Licensed Group Day Care Centers" were thus given the opportunity to respond to the questionnaire relating to possible inservice training.

The questionnaire was mailed with an accompanying letter (see Appendix p. 41) explaining the reason for the survey and requesting cooperation and participation in the survey. The questionnaire mailing also included a stamped self-addressed envelope for return. After two weeks of mailing, a follow-up telephone call was made to those who failed to respond to the mailing. A card file system was used to identify respondents.

Upon receiving the returns, the survey forms were analyzed, data collected and tabulated. Upon completion of the data processing, the information was given to the Utah State Office of Education Nutrition Specialist to assist in the developing of a "State Plan" (see definitions p. 3).
RESULTS

Introduction

In November 1977, Congress established the Nutrition Education and Training Program (NETP) with the passage of Public Law 95-166. Section 227.37 of the NETP Regulations (1978) mandated that each state establish a plan of action for the use of any federally appropriated funds earmarked for "nutrition education", and further, the plan should contain a proposal to instruct all students in the state about the nutritional value of foods as well as the relationship between food, nutrition and health. Section 19 of Public Law 95-166 stipulates a "needs assessment" as one of the components of NETP and that each state conduct such assessments. Guidelines for setting up a "needs assessment" were published in June 1978 by the United States Department of Agriculture. These guidelines were considered in developing the questionnaire for the assessment.

The purpose of this study is to furnish the Utah State Office of Education Nutrition Specialist information about the "Licensed Group Day Care Centers" regarding:

1. the nutrition concepts taught;
2. the methods or strategies used;
3. the educational level of day care personnel;
4. the State Office of Education Nutrition Specialist's role in day care;
5. the day care center's cooperation for nutrition inservice training of the faculty; and,
To obtain this information a questionnaire was developed and mailed to all ninety-eight "Licensed Group Day Care Center" directors. There was a 63% total return. Forty-three center directors returned the survey form within two weeks. A follow-up phone call was made to those centers who had not responded at the end of two weeks and nineteen more centers responded. Three surveys were returned not completed because the center's director felt that the survey did not apply to them since their center was "therapeutic" in nature.

Demographic Information

Table 1 shows demographic information about the "Licensed Group Day Care Centers" in the State of Utah at the time of this survey. Of the ninety-eight centers in the State, sixty-two responded to the survey (a 63% return). Of those sixty-two responding centers, three did not fill in the information. There were thirty-six centers (62%) responding from the urban areas (see definitions p. 3) while twenty-three (57%) responded from the rural areas (see definitions p. 3). The location of the center was not a significant variable for response.

Analysis of the size of the responding centers, as determined by the number of children enrolled, shows that of the nine centers with less than 25 children enrolled six centers were urban and three were rural. Of the 19 responding centers with 25 - 49 children enrolled, ten were urban and nine were rural. Of the 17 centers with 50 - 74 children enrolled, eleven were urban and six were rural. Of the nine responding centers with 75 - 100 children enrolled, five were urban and
<table>
<thead>
<tr>
<th>Size per No. of Children</th>
<th>Center Responses</th>
<th>URBAN Centers</th>
<th>RURAL Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. possible</td>
<td>No. of responses</td>
<td>% possible</td>
</tr>
<tr>
<td>less than 25</td>
<td>15</td>
<td>9</td>
<td>60</td>
</tr>
<tr>
<td>25 - 49</td>
<td>29</td>
<td>19</td>
<td>65.5</td>
</tr>
<tr>
<td>50 - 74</td>
<td>26</td>
<td>17</td>
<td>65</td>
</tr>
<tr>
<td>75 - 99</td>
<td>19</td>
<td>9</td>
<td>47</td>
</tr>
<tr>
<td>over 100</td>
<td>9</td>
<td>5</td>
<td>55.5</td>
</tr>
<tr>
<td>not reporting</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>98</strong></td>
<td><strong>62</strong></td>
<td></td>
</tr>
</tbody>
</table>

PERCENT RETURN TOTALS: **63.2%** **62%** **57.5%**
four were rural. Of the five responding centers with over 100 children enrolled, four were urban and one was rural. Of the sixty responding centers, there were thirty-six urban centers and twenty-three rural centers. Table 1 charts this information.

Among the responding centers there are 2402 children being taught by 259 supervisors and teachers. This is a ratio of nine and one-half children to one teacher. Table 2 shows the age categories of the children. Forty-nine percent of the children are in the combined three to five year old age range. One percent of the children are under age two and four percent are over the age of six. Twelve percent of the children counted in the 2402 total are not categorized by the responding centers.

Table 2
Age Categories of Students in Day Care

<table>
<thead>
<tr>
<th>Age of children</th>
<th>No. of children</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2 year olds</td>
<td>26</td>
<td>1.1</td>
</tr>
<tr>
<td>2 - 3 year olds</td>
<td>375</td>
<td>15.6</td>
</tr>
<tr>
<td>3 - 4 year olds</td>
<td>552</td>
<td>23.0</td>
</tr>
<tr>
<td>4 - 5 year olds</td>
<td>625</td>
<td>26.1</td>
</tr>
<tr>
<td>5 - 6 year olds</td>
<td>421</td>
<td>17.5</td>
</tr>
<tr>
<td>over 6 years old</td>
<td>94</td>
<td>3.9</td>
</tr>
<tr>
<td>not categorized</td>
<td>307</td>
<td>12.7</td>
</tr>
<tr>
<td>Total</td>
<td>2402</td>
<td></td>
</tr>
</tbody>
</table>
Data Collected

Nutrition concepts taught in day care centers. Question #1 asked: Do you include nutrition education in your education curriculum? Eighty-nine percent of those centers responding said "yes." Table 3 shows an analysis of the concepts listed (see appendix p. 42). This table indicates that for those centers who answered "yes" the percentage use of the concepts were: basic four food groups, 82.9%; vocabulary, 80.5%; food identification, 95.1%; where does food come from, 97.6%; why people eat food, 82.9%; importance of eating a variety of foods, 82.9%; sanitary food handling, 85.4%; importance of balanced meals, 73.2%; and other, 7.3%.

Table 3

Nutrition Education Concepts in Day Care Curriculum and Percent Used by "Yes" Respondents

<table>
<thead>
<tr>
<th>Concept</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES 89.1%</td>
<td></td>
</tr>
<tr>
<td>NO 10.9%</td>
<td></td>
</tr>
<tr>
<td>Basic four food groups</td>
<td>82.9</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>80.5</td>
</tr>
<tr>
<td>Food identification</td>
<td>95.1</td>
</tr>
<tr>
<td>Where does food come from</td>
<td>97.6</td>
</tr>
<tr>
<td>Why people eat food</td>
<td>82.9</td>
</tr>
<tr>
<td>Importance of eating a variety of foods</td>
<td>82.9</td>
</tr>
<tr>
<td>Sanitary food handling</td>
<td>85.4</td>
</tr>
<tr>
<td>Importance of balanced meals</td>
<td>73.2</td>
</tr>
<tr>
<td>Other</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Methods or strategies used by day care centers. Question #2 asked:

If you teach nutrition education, do you plan special discovery activities centered around food items? Table 4 shows that 91.3% of the responding day care centers said "yes" and 8.7% responded "no." The table shows that for those centers who answered "yes" the percentage use of the activities were: stories, 80.9%; coloring books, 45.2%; songs, 52.4%; games, 38.1%; cooking experiences, 85.7%; finger plays, 35.7%; puzzles, 35.7%; tasting experiences, 90.5%; fieldtrips, 59.5%; demonstrations, 59.5%; and other, 11.9%.

Table 4

Types of Discovery Activities Centered Around Food Items and Percent Use by "Yes" Respondents

<table>
<thead>
<tr>
<th>Activities</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stories</td>
<td>80.9</td>
</tr>
<tr>
<td>Coloring books</td>
<td>45.2</td>
</tr>
<tr>
<td>Songs</td>
<td>52.4</td>
</tr>
<tr>
<td>Games</td>
<td>38.1</td>
</tr>
<tr>
<td>Cooking experiences</td>
<td>85.7</td>
</tr>
<tr>
<td>Finger plays</td>
<td>35.7</td>
</tr>
<tr>
<td>Puzzles</td>
<td>35.7</td>
</tr>
<tr>
<td>Tasting experiences</td>
<td>90.5</td>
</tr>
<tr>
<td>Fieldtrips</td>
<td>59.5</td>
</tr>
<tr>
<td>Demonstrations</td>
<td>59.5</td>
</tr>
<tr>
<td>Other</td>
<td>11.9</td>
</tr>
</tbody>
</table>
Question #3 asked: If you teach nutrition education what resources do you use? Table 5 shows the percent of use by the day care centers for pictures to be 83.6%; films, 28.3%; filmstrips, 34.8%; books, 76.1%; games, 36.9%; records, 36.9%; cassette tapes, 19.6%; puzzles, 36.9%; guest speakers, 23.9%; and other, 4.3%.

Table 5

<table>
<thead>
<tr>
<th>Resources</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures</td>
<td>83.6</td>
</tr>
<tr>
<td>Films</td>
<td>28.3</td>
</tr>
<tr>
<td>Filmstrips</td>
<td>34.8</td>
</tr>
<tr>
<td>Books</td>
<td>76.1</td>
</tr>
<tr>
<td>Games</td>
<td>36.9</td>
</tr>
<tr>
<td>Records</td>
<td>36.9</td>
</tr>
<tr>
<td>Cassette tapes</td>
<td>19.6</td>
</tr>
<tr>
<td>Puzzles</td>
<td>36.9</td>
</tr>
<tr>
<td>Guest speakers</td>
<td>23.9</td>
</tr>
<tr>
<td>Other</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Question #4 asked: Do you have access to audio visual equipment? Ninety-three percent of the responding centers said "yes" with 7% responding "no." Table 6 shows that all the centers (100%) have access to record players with 82.5% having cassette tape players available. The other pieces of equipment are accessible as follows: filmstrip projector, 62.5%; slide projector, 50%; 35 mm film projector, 32.5%; TV cassette player, 7.5%; and other equipment not listed, 7.5%.
Table 6
Availability of Audio Visual Equipment in Day Care Centers
and Percent Use by "Yes" Respondents

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record player</td>
<td>100.0</td>
</tr>
<tr>
<td>Cassette tape player</td>
<td>82.5</td>
</tr>
<tr>
<td>Filmstrip projector</td>
<td>62.5</td>
</tr>
<tr>
<td>Slide projector</td>
<td>50.0</td>
</tr>
<tr>
<td>35 mm film projector</td>
<td>32.5</td>
</tr>
<tr>
<td>TV cassette player</td>
<td>7.5</td>
</tr>
<tr>
<td>Other</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Educational level of day care personnel. Question #6 asked: Who teaches the children? What is their level of education? Table 7 shows that 91.3% of those working with the children are trained teachers. Of those teachers 67.4% are college-trained while only 4.4% of the teacher aides have less than a high school education. Sixty-nine percent of the supervisors work with the children of which 58.7% of those are college-trained.

State Office of Education Nutrition Specialist's role in day care. Question #5 asked: What kind of resource materials would be helpful to you? Table 8 shows that 80.4% of the responding centers indicated they could use pictures. Books were requested by 76.1%; puzzles, 71.7%; TV cassette, 28.3%; filmstrips, 63%; films, 52.2%; slides, 39.1%; curriculum outlines, 63%; lesson plans, 67.4%; and other, 6.5%.
Table 7
Educational Level of Day Care Personnel
  Working with the Children

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Percent</th>
<th>Level of Education</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained supervisors</td>
<td>69.7</td>
<td>College level</td>
<td>58.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High school</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lower than high school</td>
<td>0</td>
</tr>
<tr>
<td>Trained teachers</td>
<td>91.3</td>
<td>College level</td>
<td>67.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High school</td>
<td>52.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lower than high school</td>
<td>0</td>
</tr>
<tr>
<td>Teacher Aides</td>
<td>58.9</td>
<td>College level</td>
<td>58.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High school</td>
<td>36.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lower than high school</td>
<td>4.4</td>
</tr>
<tr>
<td>Other</td>
<td>10.9</td>
<td>College level</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High school</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lower than high school</td>
<td>4.4</td>
</tr>
</tbody>
</table>
Table 8
Resource Materials Requested for Use in Day Care Nutrition Education

<table>
<thead>
<tr>
<th>Resource Materials Requested</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures</td>
<td>80.4</td>
</tr>
<tr>
<td>Books</td>
<td>76.1</td>
</tr>
<tr>
<td>Puzzles</td>
<td>71.7</td>
</tr>
<tr>
<td>TV Cassette</td>
<td>28.3</td>
</tr>
<tr>
<td>Filmstrips</td>
<td>63.0</td>
</tr>
<tr>
<td>Films</td>
<td>52.2</td>
</tr>
<tr>
<td>Slides</td>
<td>39.1</td>
</tr>
<tr>
<td>Curriculum outlines</td>
<td>63.0</td>
</tr>
<tr>
<td>Lesson plans</td>
<td>67.4</td>
</tr>
<tr>
<td>Other</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Day care centers' cooperation for nutrition inserviceing of the faculty. Question #7 asked: Have the teachers had any nutrition education training? Of the responding centers 76.1% said "yes" and 6.5% said "no" to the teachers having had nutrition training. There were 17.4% of the centers who did not know the teacher's nutrition training background.

Question #8 asked: Would you like an inservice training program for your faculty? Only 52.2% of the responding centers said "yes" to wanting inserviceing for their teachers, 25.7% said "no" and 22.1% were not sure.
Day care center's cooperation with secondary/university training programs. Question #9 asked: Has your center ever been used as a training center for occupational training programs? Question #10 asked: Would you be willing to allow your center to be used as a training center? Both questions are concerned with the use of the centers as training stations for students at various levels of their education. Forty-five percent of the centers responding have been used in the past and 61% said that they would be willing to open up their centers for such purposes. Table 9 shows how the responding centers answered these two questions.

Table 9

Day Care Centers' Cooperation with Training Programs

<table>
<thead>
<tr>
<th>Centers previously used as training centers</th>
<th>Centers willing to be training centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES 43.5 percent</td>
<td>YES 60.9 percent</td>
</tr>
<tr>
<td>NO 41.3 percent</td>
<td>NO 21.7 percent</td>
</tr>
<tr>
<td>DON'T KNOW 15.2 percent</td>
<td>DON'T KNOW 17.4 percent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students from</th>
<th>Percent</th>
<th>Students from</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior high school</td>
<td>13.0</td>
<td>Junior high school</td>
<td>15.2</td>
</tr>
<tr>
<td>High school</td>
<td>30.4</td>
<td>High school</td>
<td>39.9</td>
</tr>
<tr>
<td>Vocational school</td>
<td>8.7</td>
<td>Vocational school</td>
<td>36.9</td>
</tr>
<tr>
<td>Junior college</td>
<td>0</td>
<td>Junior college</td>
<td>39.1</td>
</tr>
<tr>
<td>University</td>
<td>19.6</td>
<td>University</td>
<td>52.2</td>
</tr>
<tr>
<td>Other</td>
<td>10.9</td>
<td>Other</td>
<td>10.9</td>
</tr>
</tbody>
</table>
DISCUSSION AND RECOMMENDATIONS

Discussion of the Results

Literature indicates that day care has long been concerned with nutrition but only as it relates to the feeding of children. The question of "nutrition education" was not a factor.

If other states have complied with Public Law 95-166 with regard to "needs assessments" by doing a study on preschool "nutrition education", they have not yet appeared in literature. The results of this survey clearly show that day care is concerned with "nutrition education" since most of the day care centers do teach nutrition and food concepts. The majority of the responding centers use all or part of the concepts listed, with food identification being the most used. The centers use cooking and tasting experiences as the more popular method of teaching. This may be due to the fact that food is a necessary and interesting medium. The centers requested resource materials such as: pictures, stories, games, puppets, songs and food recipes indicating that few such resources are readily available for preschool.

With the popularity of TV and other forms of audio-visual instruction, one would speculate that children respond well to the use of such media. However, this study found little use of appropriate visual aides in the nutrition concepts taught in day care. Pictures and books were the primary source of information ranking high in use while films, filmstrips and TV cassette tapes are seldom used. Although record players are available to all the centers, they are infrequently used for
"nutrition education" purposes. This indicates a definite need for audio-visual materials for day care.

The majority of the children being cared for in the responding centers were in the age bracket of three-six but a large number of children were as young as two years old. These figures lend support to Steinfols (1973) statistics as to the number of children in day care due to working mothers. The ratio of children to teachers (nine and one-half to one) is small enough to assure parents of adequate care for their off-spring.

The educational level of the personnel working with the children in day care centers was high. The majority of the teachers and more than half of the teachers' aides reported college level training. Only a small number (four and four-tenths percent) have less than a high school graduate level education. The center directors indicated that more than half of the teachers in their employ had some nutrition training and the majority of the directors would be willing to have inservicing for their teachers. Several directors indicated that "there is always room for improvement". Twenty-two percent of the responding centers indicated they were not sure about having nutrition inservicing saying it would depend on the time of the inservicing.

This study found support for the premise that day care centers can be used as training stations for both high school and college level students. Previously the area of preschool has been overlooked for secondary and university level students interested in child care. The implications of this response can be interpreted as leading to better prepared day care personnel. A closer cooperation between the day care
administrator and the secondary-post-secondary teacher has been shown to be a significant need.

Prior to the passage of the bill creating the Nutrition Education and Training Program, the Utah State Board of Education had little or no jurisdiction over preschool institutions. Public Law 95-166 gave the responsibility for the appropriated funds to the Board of Education and stipulated the funds be used to reach all children with "nutrition education".

Because of this "needs assessment", the opportunity is provided to update teaching methods and strategies, to teach sound concepts and to give children in day care the chance to develop good nutrition habits. The opportunity is also provided to do as Senator George McGovern suggested in his 1974 Hearings on Nutrition and Human Needs which is to develop "an extensive program of nutrition education in America" (p. 22).

Recommendations

Since the results of the survey questionnaire indicate that the majority of the "Licensed Group Day Care Centers" in the State of Utah are teaching "nutrition education" in some form and that they are using a variety of concepts and activities in teaching children, the following recommendations are made:

1. The Utah State Office of Education Nutrition Specialist compile and/or develop resource materials which will enrich the curriculum already used by the centers. Concepts and approaches now being taught need expansion. Curriculum guides designed especially for this age level would be helpful to day care teachers and provide some uniformity and continuity to the current program.
2. Activities and resource materials in the form of pictures, books, puzzles and filmstrips would be the most useful to the centers as indicated by the survey results. Simple stories which could be presented in the form of flannel board or puppet activities are needed. Songs and recipes were also requested as activities to further support "nutrition education" in day care. It is suggested that these resources and activities be compiled and/or developed and made available to the day care centers.

3. The majority of the centers indicated that they had access to the more commonly used audio-visual equipment such as the record player, cassette player, filmstrip and slide projector. Resource materials for these more accessible pieces of equipment are needed. Movie projectors and TV cassette players are not generally available, so these types of resources would not be used as often. Several centers indicated that they used broadcast TV whenever appropriate programs were shown. It is suggested that audio-visual materials be compiled and/or developed for use with record players, cassette tape, filmstrip and slide projectors. Since movie projectors and TV cassette equipment are not readily available but cited as valuable equipment, centers stated these as needs. It is suggested that these types of audio-visual materials be developed. Because the centers use broadcast TV whenever possible, it is recommended that the Nutrition Specialist make available to the TV stations appropriate materials on nutrition for television broadcast.

4. Inservicing teachers are seen as a means of up-dating caregivers involved in nutrition and day care. It is recommended that those centers requesting inservicing be contacted and a schedule be set up to
accommodate them. It is further recommended that the Nutrition Specialist use trained personnel and specialists from all areas of the state for this purpose. These home economics-trained people can be found in the field of extension, business, teaching and homemaking.

5. It is recommended that the State Nutrition Specialist inform the universities, colleges, and secondary schools in the state of any day care centers in their geographic areas who have indicated they would be willing to have their centers used as training stations for students interested in child care.

Significance of the Study

This study provides the Utah State Office of Education Nutrition Specialist information about the "Licensed Group Day Care Centers" regarding:

1. the nutrition concepts taught;
2. the methods or strategies used;
3. the education level of day care personnel;
4. the State Office of Education Nutrition Specialist's role in day care;
5. the day care center's cooperation for nutrition inservicing of the faculty; and,
6. the day care center's cooperation with secondary/university training programs.

Because this is the first such study in the State of Utah in the area of day care, the Nutrition Specialist now has basic data from which to plan and develop the State's program. This study also provides a
baseline from which to evaluate certain aspects of the program.

The results of this study will assist the Utah State Office of Education Nutrition Specialist in developing a plan of action for aiding and instructing teachers and child care aides in day care centers. In addition, all "Licensed Group Day Care Centers" in the State of Utah receiving this questionnaire were alerted to the interest of the State Nutrition Specialist in their curriculum.

Since all states are required to comply with the regulations mandated by Public Law 95-166, the "needs assessment" generated by this investigation provides a basis for comparative data on nutrition and day care in other states. This "needs assessment" provides a questionnaire format for use in determining nutrition concepts in day care.
REFERENCES


Ferreira, N. *Teachers guide to educational cooking in the nursery school - an everyday affair.* *Young Children,* November 1973, pp. 23-32.


Raman, S. P. Role of nutrition in the actualization of the potentialities of the child. *Young Children*, November 1975, pp. 24-32.


The Nutrition Education and Training Program of the Utah State Office of Education is in the process of designing and developing effective nutrition education materials for children in day care centers and institutions.

When completed, the materials will be available for use in all centers throughout the state. However, in order to better understand your needs, we have developed a questionnaire which we would like you to answer and return to us as soon as possible. A self-addressed stamped envelope is included for your convenience.

The survey is designed to find out if you have any defined nutrition education program or curriculum in addition to the serving of food as designated by the state licensing regulations under which you operate.

We appreciate your cooperation and look forward to assisting you in your nutrition education needs.

Sincerely,

Marcella Romero
Marcella Romero, Specialist
Nutrition Education & Training

Almina Barksdale
Study Director

seb:1*15

Enclosures
NUTRITION CENTER
FOR
LICENSED DAY CARE CENTERS IN THE STATE OF UTAH

NAME OF CENTER ____________________________________________
ADDRESS ____________________________________________ ZIP ___
PHONE __________________________
Number of children served: Total enrolled __________
ages 1-2 ________
2-3 ________
3-4 ________
4-5 ________
5-6 ________
over 6 ________
Number of teachers in the center __________

PLEASE CHECK ALL APPROPRIATE BOXES IN EACH QUESTION
1. Do you include nutrition education in your education curriculum?
   □ YES □ NO □ DON'T KNOW
   IF YES: Do you teach basic nutrition concepts such as:
   □ Basic Four food groups □ the importance of eating a variety of food
   □ vocabulary □ sanitary food handling
   □ food identification □ importance of balanced meals
   □ where does food come from □ Other (specify) __________
   □ why people eat food

IF NO: DO NOT RESPOND TO QUESTIONS 2 AND 3
2. If you teach nutrition education, do you plan special discovery activities centered around food items?

☐ YES  ☐ NO  ☐ DON'T KNOW

IF YES: What activities do you use?

☐ stories  ☐ finger plays
☐ coloring books  ☐ puzzles
☐ songs  ☐ tasting experiences
☐ games  ☐ fieldtrips
☐ cooking experiences  ☐ demonstrations
☐ Other (specify) 

3. If you teach nutrition education what resources do you use?

☐ pictures  ☐ records
☐ films  ☐ cassette tapes
☐ filmstrips  ☐ puzzles
☐ books  ☐ guest speakers
☐ games  ☐ Other (specify) 

4. Do you have access to audio visual equipment?

☐ YES  ☐ NO  ☐ DON'T KNOW

IF YES: What kinds?

☐ record player
☐ cassette tape player
☐ filmstrip projector
☐ slide projector
☐ 35mm film projector
☐ TV cassette players or video recorders
☐ Other (specify) 
5. What kind of resource materials would be helpful to you?
- pictures
- books
- puzzles
- TV cassettes
- filmstrips
- Other (specify)

6. Who teaches the children? What is their level of education?
- Trained supervisors
  - college level
  - high school
  - lower than high school
- Trained teachers
  - college level
  - high school
  - lower than high school
- Teacher aides
  - college level
  - high school
  - lower than high school
- Other (specify)
  - college level
  - high school
  - lower than high school

7. Have the teachers had any nutrition education training?
- YES
- NO
- DON'T KNOW

8. Would you like an inservice training program for your faculty?
- YES
- NO
- DON'T KNOW
9. Has your center ever been used as a training center for occupational training programs?

☐ YES  ☐ NO  ☐ DON'T KNOW

IF YES: Where have the students come from?

☐ junior high school  ☐ high school  ☐ vocational school  ☐ junior college  ☐ university  ☐ Other (specify) ______________________

10. Would you be willing to allow your center to be used as a training center?

☐ YES  ☐ NO  ☐ DON'T KNOW

IF YES: Would you prefer students from

☐ junior high school  ☐ high school  ☐ vocational school  ☐ junior college  ☐ university  ☐ Other (specify) ______________________

Thank you for taking the time to respond to this questionnaire. The results of this survey will be used by the Nutrition Education and Training Specialist to design and develop materials for your use.

Please return the survey in the enclosed self-addressed stamped envelope to:

Marietta Romero, Specialist
Nutrition Education & Training
250 East 500 South
Salt Lake City, UT 84111

[Signatures]