

California State University, San Bernardino

**CSUSB ScholarWorks**

---

Theses Digitization Project

John M. Pfau Library

---

1997

## **An evaluation of the impact of WIC educational classes on the knowledge attained by WIC participants**

Enas Joseph

Follow this and additional works at: <https://scholarworks.lib.csusb.edu/etd-project>



Part of the [Social Work Commons](#)

---

### **Recommended Citation**

Joseph, Enas, "An evaluation of the impact of WIC educational classes on the knowledge attained by WIC participants" (1997). *Theses Digitization Project*. 1479.  
<https://scholarworks.lib.csusb.edu/etd-project/1479>

This Project is brought to you for free and open access by the John M. Pfau Library at CSUSB ScholarWorks. It has been accepted for inclusion in Theses Digitization Project by an authorized administrator of CSUSB ScholarWorks. For more information, please contact [scholarworks@csusb.edu](mailto:scholarworks@csusb.edu).

**AN EVALUATION OF THE IMPACT OF WIC EDUCATIONAL CLASSES ON THE  
KNOWLEDGE ATTAINED BY WIC PARTICIPANTS**

---

**A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino**

---

**In Partial Fulfillment  
of the Requirement for the Degree  
Master of Social Work**

---

**by  
Enas Joseph  
June 1997**

AN EVALUATION OF THE IMPACT OF WIC EDUCATIONAL CLASSES ON THE  
KNOWLEDGE ATTAINED BY WIC PARTICIPANTS


---

A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

---

by  
Enas Joseph  
June 1997

Approved by :

  
Dr. Teresa Morris, Project Advisor, Chair of Research  
Sequence, and Chair of the Department of Social Work

5/30/97  
Date

  
Betsy Cline, R.D. MPH  
WIC Program Manager

## **ABSTRACT**

There is a constant need to assess the effectiveness of social work practice and programs. Poverty once signified only less income, but now signifies also the likelihood of disease, disability, and early death. Programs need to focus on education as a learning experience that will lead to greater positive individual and group decision-making in health related matters. This study evaluated how the Women, Infants, and Children Program ( WIC ) monthly educational classes impact the knowledge attained by WIC participants. This positivist descriptive research project with a one-group pre and post test design measured knowledge attained by the participants on these different topics : Immunization, Dental Health, Parenting, Reading To Your Child About Nutrition, and Second-hand Smoking / Passive Smoking. Analysis of variance tested the relationship between attending the WIC monthly educational classes and the knowledge attained by the WIC participants. Results indicated a statistical significant difference in the WIC participant's attainment of knowledge about the immunization educational class, but not the other topics. However, results show a significant difference between the post-test mean scores and the pre-test mean scores. Efforts need to be made, in future studies, towards not only educating poor families with children, but also to provide them with the necessary tools, skills, and resources to promote certain behavior changes.



## **TABLE OF CONTENTS**

<b>ABSTRACT</b> . . . . .	<b>iii</b>
<b>INTRODUCTION</b> . . . . .	<b>1</b>
<b>PROBLEM STATEMENT</b> . . . . .	<b>1</b>
<b>PROBLEM FOCUS</b> . . . . .	<b>3</b>
<b>LITERATURE REVIEW</b> . . . . .	<b>5</b>
Immunization . . . . .	6
Dental Health . . . . .	8
Parenting . . . . .	9
Reading To Your Child About Nutrition . . . . .	10
Second-hand Smoking / Passive Smoking . . . . .	12
<b>RESEARCH QUESTION</b> . . . . .	<b>13</b>
<b>HYPOTHESES FOR THIS RESEARCH PROJECT</b> . . . . .	<b>13</b>
<b>DESIGN AND METHOD</b> . . . . .	<b>14</b>
Design of Study . . . . .	14
<b>SAMPLING</b> . . . . .	<b>19</b>
<b>DATA COLLECTION AND INSTRUMENTS</b> . . . . .	<b>20</b>
<b>PROCEDURE</b> . . . . .	<b>22</b>
<b>PROTECTION OF HUMAN SUBJECTS</b> . . . . .	<b>24</b>
<b>RESULTS</b> . . . . .	<b>24</b>
<b>DISCUSSION</b> . . . . .	<b>31</b>
<b>APPENDIX A : Informed Consent and Debriefing Statement</b> . . . . .	<b>34</b>
<b>APPENDIX B : Participant's Demographics</b> . . . . .	<b>35</b>
<b>APPENDIX C : Pre and Post Tests</b> . . . . .	<b>36</b>
<b>REFERENCES</b> . . . . .	<b>45</b>

## **INTRODUCTION**

Increasing numbers of single-parent families, a sluggish labor market, and declining benefit levels in transfer programs have all played a role in the increasing prevalence of poverty ( Huston , 1991 ) . Approximately seventy five percent of the poor are women and children. Mothers usually bear the greatest burden of support and are increasingly shunted into poverty ( Day , 1989 ) . Poverty once signified only less income, but it now signifies also the likelihood of disease, disability, early death, and the lack of every benefit that society can bestow such as a safe environment, health, education, social support, and employability ( Ewalt , 1994 ) .

## **PROBLEM STATEMENT**

There is a constant need to asses the effectiveness of social work practice and programs. This need stems from such forces as public skepticism about the effectiveness of social programs for poor families, increasing demands for accountability, and our own professional and humanitarian concern and professional conduct for the welfare of clients. Implicit in the term effectiveness is the notion of causality. That is, the extent to which we demonstrate our effectiveness depends on the degree to which we can infer that our services caused the desired effect that they sought to attain ( Rubin and Babbie , 1993 ) .

Studies show that the current welfare system serves only a fraction of the poor. It helps in very limited and rigid ways by giving them cash substitutes, paying their medical bills, and taking care of them in various ways, since they are presumed to be incapable of taking care of them selves ( Lynn , 1990 ) . Other studies address many pernicious aspects of services for poor families such as, fragmentation, disabling complexity, presumption of pathology, and lack of attention to families own perspective on their lives. There is now consensus that services have to grow out of the character and life of the community in which they are embedded ( Halpern, 1991 ) .

Also, major welfare reform proposals are focusing on moving recipients of Aids to Families with Children ( AFDC ) from economic dependency to self sufficiency through employment. However, studies show that success in reaching that goal depends on whether recipients can secure adequately paying, permanent employment. This seems unlikely for many, and even if they found jobs, they may well join the ranks of the working poor. Therefore it seems likely that even if these recipients do find employment, most will not be able to move their families above the poverty line unless they receive various income supplements and services ( Chilman , 1995 )

Other studies suggest the complementarity of "life skills teaching" and "social support facilitation" as elements of effective service programs for children, youths, and families. Implications of the ecological paradigm, historical and theoretical roots of the "person-in-environment" configuration were examined along with recent empirical evidence. Life skills teaching refers to competencies beyond intellectual knowledge that are needed to act effectively in social environments and social roles. Specific examples include social skills for adolescents, conflict resolution skills for spouses, parenting and family skills, skills in managing emotionality for depressed adolescents, and many other skills involving mastery of a physical environment.

Social support facilitation is thought to consist of many different types of helping, including material aid, behavior assistance, intimate interactions, guidance, feedback, and positive social interaction. Social support may occur in natural helping networks ( e.g., family and friends ), or in specially created net works ( e.g., self-help groups ), or occur by itself or may be joined to numerous roles that professional helpers play. To demonstrate the effectiveness of social work programs and to infer that our services " cause " the desired effect they are sought to attain, we need to evaluate and modify our strategies ( Gilchrist , Schinke, and Whittaker, 1986 ) .

To empower poor families with children it seems like, in addition to income supplements offered through AFDC and Food Stamp programs, efforts need to be made towards educating poor families with children in life skills teaching, social support facilitation, and other topics as needed by the people receiving the services. Such efforts may better prepare poor families with children with the necessary skills to have a better chance to move their families above the poverty line.

Education is a unique component of the Women, Infant, and Children Nutrition Program ( WIC ). The WIC program began in 1972. The services provided through WIC distinguishes it from other give-away-programs, such as AFDC and Food Stamp Program, addressed in the welfare reform debate. It is a short term intervention program funded by the Food and Nutrition Service of the United States Department of Agriculture ( USDA ). The program is designed to influence life time nutrition and health behaviors through providing quality nutrition and health education group classes, one to one counseling sessions, and food prescriptions to low-income women, infants, and children ( The National Association of WIC Directors ( NAWD ) Legislative Alert, 1994 ) .

The goal of this study is to evaluate whether the education classes offered by the WIC program impact the knowledge attained by the WIC participants.

### **PROBLEM FOCUS**

This project used the positivist paradigm . This paradigm suggests that there exists a " reality " out there. It suggests that the inquirer can observe nature's secrets without altering them in any way. It also uses empirical methods that place the point of decision with nature rather than with the inquirer ( Guba , 1990 ) . Positivism is a world view which suggests that objective knowledge can be derived from objective phenomenon. This knowledge can be quantified and measured to test if there is a cause and effect between the phenomenon and certain variables.

The Positivist paradigm was used to study the impact of the "education classes" on "the knowledge attained" by the WIC participants at one of the WIC clinic sites. The positivist paradigm allows the researcher to form time and context free evaluations of the researcher hypothesis and unit of study. This paradigm is suited to this study because it will minimize the extent to which the researcher influences the information solicited from the respondents. It is important to the context of this study to minimize spurious influences in order to discover the impact of nutrition and health education on the participants' attainment of knowledge.

The study mostly addressed social work direct practice. The WIC program inherently involves the direct provision of social work services in its assessment of the education component. It also involved community intervention in its place as a public-funded and provided program. Any evaluation of the effectiveness of a program also must address administration and planning roles to both maintain and enhance the program. The knowledge attained was quantified and measured to test if there is a relationship between the knowledge presented in the class and the knowledge attained by the participants.

The unit of analysis is the "WIC participant". They are identified as low-income single and / or married mothers and fathers, grand parents and / or relatives who have legal custody of children under the age of 5, and foster parents. In addition to being low income, they have to be a resident of that County. They also need a referral form from a medical doctor due to having one or more physical, medical, or nutritional risk for themselves ( Pregnant, Breast feeding, and Postpartum women only ), or for their children.

WIC participants' needs vary depending on the uniqueness of each case. Their needs include the following: receiving food prescriptions, medical and social service referrals, other community resources referrals, and information about different nutrition and health care practices. The program also offers other general every day life

information, that the participant's parents and schools may have not provided, and their doctors may have no time to address.

Previous studies of WIC programs have focused on program's cost-benefit, programs effectiveness in reducing infant mortality, fetal death rates, fetal alcohol syndrome, low birth weight, iron deficiency anemia, program's effectiveness in increasing the proportion of mothers who achieve the minimum recommended weight gain during their pregnancies, proportion of mothers who breast-feed, immunization levels, and increasing the proportion of caregivers who use feeding practices that prevent baby bottle tooth decay. Other studies focused on evaluating the participants' interests in different class topics, different methods of teaching, how the participants perceive staff's attitudes, and how staff's attitudes impact the participant's perception of services delivered.

This research study focuses only on the short term effectiveness of the education component. Education alone has not been previously assessed at this site. Briefly, the research question addresses, " How strongly do the "education classes" provided by the WIC program, impact the "knowledge" attained by the WIC participants". The following topics were pre and post tested over a 5 months period : Immunization, Dental Health, Parenting, Reading to your child about nutrition, and Second-hand Smoking / Passive Smoking.

## **LITERATURE REVIEW**

Reports prepared, to provide basis for equitable implementation of the US human rights policy, have shown that education, health, income, and nutrition rights were the highest priority areas for immediate action on the effort to improve the consistency and objectivity of the economic rights section ( Innes-de-Neufville , 1982 ) . It was also suggested that we consider the health of the individual as an indicator of improved quality of living. To reduce the incidence of illness, new methods of health education are needed

to produce changes in the behavior of the individuals and in the customary practices of groups, such as the family. Programs need to focus on learning experiences that will lead to greater positive individual and group decision-making in health related matters ( Wang , 1972 ) .

Over the past decade preventive medicine has also been a subject of great interest and controversy. Now rising costs of medicine have led to hope that prevention may be cheaper than treatment. Measures needed to prevent health problems included matters of individual decision, such as avoiding tobacco, alcohol, and drug abuse, eating a balanced diet, avoiding obesity, using seat belts and driving safely and not carrying handguns ( Saward and Sorensen , 1978 ) . To respond to these needs and overcome real-world barriers, strategies were proposed for public education, funding mechanisms that go beyond individual programs, professional training, and documentation of successful results ( Schorr, 1990 ) . This research will present literature review on how educating the public on Immunization, Dental Health, Parenting, Weight Management, Child Nutrition, and Second-hand Smoking / Passive Smoking, impacts their attainment of knowledge.

### **Immunization**

The National Vaccine Plan addresses five broad goals for improving the Nation's immunization system. These goals include: better educate the public and members of the health professions on the benefits and risks of immunizations; better use of existing vaccines to prevent disease, disability, and death; develop new and improved vaccines, ensure the optimal safety and effectiveness of vaccines and immunization; and support global disease eradication and prevention through immunization. Achieving these goals is one of the principal objectives of the Department. This effort will require the commitment of every one involved if we are to achieve the national goal of 90% coverage of 2 year olds by the year 2000 ( Robinson, and Bart 1993 ) .

During the last two decades the United States has been part of a "new world order" in the prevention of disease through immunization. Today, approximately 98% of our children are fully immunized against five childhood diseases by the time they begin school. These high immunization levels are due to the combined efforts of State and local health departments, education officials, a variety of public and private sector health care providers, and the Federal government. That is the good news. The bad news is that despite the proven benefits of vaccines against childhood diseases, children in this country are suffering and needlessly dying from these diseases. The 1989-91 measles epidemic was a tragic way to learn that getting children immunized to enter school is not enough. Our youngest children are vulnerable to potentially crippling epidemics because we are not reaching them at the appropriate times ( starting at birth and four times during the first 2 years of life ) .

The Department of Health and Human Services ( HHS ) through it's Centers for Disease Control ( CDC ) has chosen six communities, representative of many without adequate childhood immunization coverage, to develop immunization plans as part of an across-the-nation effort to ensure that children are appropriately immunized not just by the time they enter school but by age 2 years. The six communities were Dallas, Maricopia, South Dakota, Detroit, San Diego, and Philadelphia.

All plans focused on breaking down barriers and providing better access to immunization in six representative localities to solve the problem of late immunization. All six areas presented their Immunization Action Plans and among what they proposed are the following: provide services at convenient places and times; reach parents when they are applying for Federal and State assistance such as Aid to Families with Dependent Children ( AFDC ) and Women, Infants and Children ( WIC ) Programs in the area; use education, outreach, and support through public and volunteer groups; establish additional



mobile immunization clinics in areas where people lack access to immunization services; develop and implement an information and education plan to promote age-appropriate immunizations at the community levels; and pursue outreach and education through community-based organizations which will focus on the development of educational materials, professional education, and a mass media campaign to maintain public awareness ( Woods, and Mason, 1992 ) .

### **Dental Health**

Several key areas of continuing research were identified and among them: the use of health education studies on parental and peer group influences in dental health behavior; use of social survey methods; objectives management and education in training and team-treatment settings; and situation analyses of public projects and preventive efforts. The development of social and behavioral studies in dentistry were traced through a review of the United States government involvement since the mid-1950s. While early research centered around dentist-patient relationships and motivations to seek care, additional studies on manpower, recruitment, education, training, the growth of epidemiological, and preventive perspectives began to emerge in the 1960s. ( Cohen, 1981 ) .

Although access to dental care appears to have improved between 1983 and 1986, inability to pay, lack of awareness about the importance of dental care, or reluctant to seek care leave many people without adequate care. In 1986, 57% of individuals in the United States age two years or over had made at least one visit to a dentist within a year compared with 55% in 1983. Receiving dental care is strongly associated with the ability to pay for it. People in families with more income were more likely to visit a dentist than people in families with less income. 74% of the individuals in families with annual incomes of \$35,000 or more had at least one dental visit in 1986, in contrast with 41% in families with incomes of less than \$10,000.

Dental care is an important, but sometimes neglected, part of total health care. Children who fail to have their problems taken care of grow into adults with decayed, missing, or maloccluded teeth. Older people who have not received appropriate care may suffer from periodontal disease, missing teeth, or poorly fitting dental appliances. People seldom die for lack of dental care, but the quality of their lives can be compromised by the lack of appropriate dental care ( Kovar, Jack, and Bloom, 1988 ) .

### **Parenting**

Family support programs are preventive in nature. Some of their elements include self-help discussion groups on parenting problems, parent education on child management, parental issues, and parent-child activities. A study examined two components of family support program, a mothers' self-help discussion group and a parent education group, to determine their effects on social support and parenting stress. Findings suggested that, after three months of program participation, mothers in both groups felt less social isolation, less parenting stress, and an increase in social than did mothers in the control group. Based on these findings, a family support program should encourage the development of friendships among program participants, provide satisfying social contacts with other parents in similar life circumstances, and build a social network around parenting where none previously existed in order to have a positive effect on the mother's attitude toward the child and reduce her stress of social isolation in the parental role ( Telleen, Herzog, and Kilbane, 1989 ) .

The family support movement points to an increasing need among all American families for support, advice, and role models. A study of the effectiveness of a parent education and support program offered to all parents of newborn children regardless of socioeconomic status in three independent school districts. Potential benefits to the parents and the children were examined longitudinally over a 3-year course of the

program. Evidence showed that the program achieved important goals with respect to parenting and the home environment. These results were sufficient to encourage continued efforts to make such parenting education and support programs available in more communities, and to increase efforts to reach out to greater numbers of parents with potentially greater needs for intervention ( Owen and Mulvihill, 1994 ) .

Parent training programs have emerged as a potentially important component of more comprehensive prevention programs for families of children with disruptive behavior disorders. A significant percentage of children with disruptive behavior disorders do not receive mental health assistance. To increase availability, accessibility, and cost efficacy of parent training programs, this prospective randomized trial compared a large group community-based parent training program to a clinic-based individual parent training program. Parents in community-based program reported greater improvements in behavior problems at home and better maintenance of these gains at 6-month follow-up.

The preventive inclusion of lower risk families interested in parent training results in a very small incremental cost, therefore this type of program could be widely available. Moreover, as families of lower risk children may function more effectively, possess better child management skills, and be more knowledgeable regarding community supports, they represent a valuable resource to higher risk group members ( Cunningham, Bremner, and Boyle, 1995 ) .

### **Reading To Your Child About Nutrition**

A major dilemma in children's health promotion is how to involve parents in those efforts. Parents serve important health-related roles for their children as models of appropriate behavior and the major sources of reinforcement in most children's lives. Children's eating habits in the United States reflect those of adults. Reviews of the nutrition education literature suggests that school-based interventions can increase

students' knowledge. However, the current direction in nutrition suggested by this research is to emphasize healthy eating patterns and to teach skills that facilitate the learning and practice of these patterns. Parents are important targets for health education efforts because they act as role models and teachers for their children. Health education interventions which changes family attitudes and habits are likely to promote longer lasting health behavior changes. The results presented in this study are optimistic ones for parental involvement in children's health promotion and they hold promise for the future to enhance early learning of health behavior ( Perry, Luepker, Murray, Kurth, Mullis, Crockett, and Jacobs, 1988 ) .

Evidence show that physiologic risk factors for cardiovascular disease ( including blood pressure, cholesterol, and obesity ) track from childhood to adulthood. Patterns of dietary intake and other health-related behaviors affect such risk factors, and it has been proposed that most health compromising adult behaviors affect such risk factors, and has been proposed that most health compromising adult behaviors have their origin in childhood. This suggests that the development of healthy dietary patterns during childhood may be particularly important in the prevention of adult cardiovascular disease ( Singer, Moore, Garrahe, and Ellison, 1995 ) .

Nutritional disorders are not uniformly distributed in human populations. Many conditions such as under-nutrition, failure to thrive, and trace metal deficiencies are more likely to occur in the context of poverty, environmental deprivation, and disadvantaged social conditions, all of which may adversely affect behavior and development. A study focused on these three nutritional problems suggested that nutritional problems are often linked to environmental disadvantage, the possibility exists for long-term developmental effects, treatment for under-nutrition does not appear to reverse all negative effects, and that prevention of nutritional disorders rather than treatment holds the greatest promise

for eradicating behavioral and developmental problems. These observations suggest that prevention of nutritional problems deserves the highest priority in terms of public health policies ( Lozoff, 1989 ) .

### **Second-hand Smoking / Passive Smoking**

The focus on passive smoking allows transcendence of the view of smoking as personal because it redefines smoking as a public health issue, moving it nearer to positions analogous to infectious disease, drunken driving, and other health issues. Public education and awareness efforts for nonsmokers increases evidence showing passive smoking to be dangerous as an affront to one's own health and to a perfectly reasonable preference for smoke-free air ( Chapman, Borland, Hill, Owen, and Woodward , 1990 ) .

Reports by the National Research Council and the U.S. Surgeon General in 1986, and the Environmental Protection Agency ( EPA ) in 1993, concluded that second-hand smoke or environmental tobacco smoke ( ETS ) can cause cancer in adult non-smokers and respiratory ailments in children. Based on the weight of the available scientific evidence, EPA has concluded that the wide spread exposure to environmental tobacco smoke in the U.S. presents a serious and substantial public health risk. Numerous research studies over the past 25 years suggested that organized educational interventions can help prevent the onset of smoking and smokeless tobacco use ( U.S. Environmental Protection Agency Summary of the 1993 report, 1994 ) .

Although most lung cancer occurs in smokers, approximately 9% to 13% of lung cancer cases in US women develop in lifetime non-smokers. Numerous studies have suggested an elevation in lung cancer risk for non-smoking females who live with a smoker. Other studies suggested that exposure to high levels of environmental tobacco smoke in adulthood increases the risk of lung cancer in non-smokers. In summary, studies conducted during the past decade suggested a small but consistent elevation in the risk of

lung cancer in non-smokers due to passive smoking. The proliferation of federal, state, and local regulations that restrict smoking in public places and work sites is well founded ( Brownson, Alavanja, Hock, and Loy, 1992 ).

The available literature suggests the importance of education as a tool to increase knowledge. This study proposes to assess the impact of education on knowledge attainment in one WIC recipient population.

### **RESEARCH QUESTION**

How strong is the impact of the monthly educational classes offered by the WIC program, on the knowledge attained by the WIC participants? They were pre and post tested to evaluate their knowledge about : Immunization, Dental Health, Parenting, Reading to your child about nutrition, and Second-hand Smoking / Passive Smoking.

### **HYPOTHESES FOR THIS RESEARCH PROJECT**

#1- WIC participants who will attend the " Immunization " class will test higher, in the post test on knowledge concerning immunizations.

#2- WIC participants who will attend the " Dental Health / Preventing Tooth Decay " class will test higher in the post test on knowledge concerning feeding practices that prevent tooth decay.

#3- WIC participants who will attend the " Parenting " class will test higher, on the post test on knowledge concerning effective ways to respond to a child's " bad " behavior.

#4- WIC participants who will attend the " Reading to your child about nutrition " class will test higher in the post test on knowledge concerning healthy eating habits for their children.

#5- WIC participants who will attend the " Second-hand Smoking / Passive smoking " class will test higher in the post test on knowledge concerning the evidence that those who are regularly exposed to smokers can suffer serious health effects.

## **DESIGN AND METHOD**

### **Design of Study**

This was a positivist descriptive study. The researcher evaluated the participants knowledge attained from the monthly educational classes. A one-group pretest-posttest design was used. It is one of the " pre-experimental " designs which looks at the relationship between two variables. The participant's knowledge was pre and post tested once a month over a period of 5 months. The different topics were Immunization, Dental Health, Parenting, Reading to your child about nutrition, and Second-hand Smoking / Passive Smoking. Each topic was presented during a month, and pre and post tests were confined to one topic each.

In this study the independent variable was " education ", and the dependent variable was " knowledge ". The one-group pretest-posttest design assessed the dependent variable before and after the intervention ( the independent variable ) was introduced. Thus, the evaluation of the effectiveness of the educational component assessed the level of knowledge before and after each educational topic was introduced.

The strengths of using one-group pretest-posttest designs were their feasibility and usefulness in finding out whether participants' posttest scores were better or worse than their pretest scores. They can be implemented on a pilot-study basis where stronger designs are not feasible to do. An effective intervention establishes correlation and causal time-order, provides reasonable basis for continued testing of the intervention, and justifies seeking resources for conducting a larger study with more internal validity. Group designs can also provide feedback to practitioners that enables them to modify service delivery if the need for modification is indicated by this information. Overall, they can provide some logical and empirical evidence concerning the effectiveness of interventions for which the impact on participants has not yet received enough scientific

testing. They can be replicated, and if the results of various studies on the same intervention were consistent, then the evidence about the effectiveness of the intervention is strengthened.

The weaknesses of one-group pretest-posttest designs were that they do not take into account factors other than the independent variable that might have caused the change between pretest and posttest results. These factors usually are associated with threats to internal validity such as history, maturation, testing, instrumentation, statistical regression, selection biases, and mortality. In this research history may be presented by any extraneous events that may coincide in time with the manipulation of the independent variable. Maturation may be presented through people's growth and development due to the passage of time. Testing may be presented through the obvious fact that the process of testing will enhance performance without any corresponding improvement in the real construct that the test attempts to measure. Instrumentation may be presented by having different measures of the dependent variable. Statistical regression may be presented through providing services to only those people with the most extremely problematic recipients. There may be a danger that changes occur because subjects started out in extreme positions will be attributed erroneously to the effects of the independent variable. Selection biases may be presented by selecting participants who are comparable to each other or who are expected to do well. Mortality may be presented by the fact that often subjects would drop out of an experiment before it is completed, and the statistical comparisons and conclusions drawn could be affected by that. Also a special caution needs to be exercised with regard to the measurement problems of reactivity, obtrusiveness, and social desirable bias ( Rubin and Babbie , 1993 ) .

Among the first threats to internal validity that occurred during the course of the research and confounded the results was " history ". During the months of November /



December 1996 the WIC site, where the sample was chosen, went through a major operation change from manual system to being automated. Staff was mandated to educate the participants about their new coupons and how to use them. The participants may have been over overwhelmed by too much information being presented during the dental health and parenting class which were offered at that time. The parenting class was presented in December, which is a very busy month for every one due to the holidays. The participants who attended the class may have been occupied with other holiday related issues and not interested in parenting.

Another extraneous event may have been if a participant have just come back from the doctors office where she was given information about immunizations, or may have just started reading a parenting book which provides information about effective ways to respond to a child's "bad" behavior. The researcher addressed that by including in the questionnaire a question asking participants if they were currently getting any information from any other sources about each topic of the month.

The second threat was " maturation or the passage of time ". Such a factor implied the possibility that participants walked into class with a good level of education due to growing and changing. For example, a participant may have lost a family member in the past due to second-hand smoking which lead her to acquire a strong sense of knowledge and awareness about the effects of second-hand smoking on herself and her family.

The third threat was " testing ". The researcher had an obligation to comply ethically with the protection of human subjects. The participants signed consents, were informed that they were being tested, and were informed about the nature and details of the study.

The fourth threat was " instrumentation ". The same questions and standards of rating were used for the pretest as well as for the post test. However, the instruments used for testing did not discriminate adequately, in other words most of the questions may have been common knowledge. Items represented the least common denominator in assessing participants attitudes, orientations, and experiences. The topics of the study were not amenable to measurement through questionnaires, and the act of studying that topic affected it's result. Questionnaires often appear superficial in their coverage of complex topics, and can seldom deal with context of social life.

The fifth threat was " statistical regression ". All participants in the selected sample pre and post tested monthly about the different topics without a control group to compare scores to.

The sixth threat was " selection biases ". There were no groups to be compared because the study tested the impact of educational classes on the knowledge attained. The sample selected met the standard criteria for WIC eligibility without any discrimination in regards to their education, or knowledge of the five topics that would be pre and post tested.

The seventh threat was " mortality ". Participants were pre and post tested at the same session each month, but there was a chance that participants may drop out before the five month period is over. The drop out rates were not very high due to the participants need to receive the monthly food prescriptions, but never the less drop out was a valid factor. The researcher increased the sample's number so that drop out rates would not greatly affect the study.

The positivist paradigm addressed three specific criteria for the determination of causation in scientific research. The first requirement in a causal relationship between two variables was that the cause precedes the effect in time. The educational classes had to be

offered first before an improvement in the participants knowledge is noticed. The second requirement was that the two variables would be empirically correlated with one another. There was a " positive correlation " in which we could see that as educational classes are offered, there was an increased amount of knowledge attained, or as one decreases the other one decreases too. There was also a " negative correlation " in which we could see that as educational classes were offered, there was a decreased amount of knowledge attained, or as one decreases the other increases. Therefore, in this study there would be a positive correlation between the educational classes offered and the knowledge attained by the participants. If some participants attain knowledge from the classes while others do not, it would be necessary to ask how great the empirical relationship needs to be for that relationship to be considered causal.

The third requirement for a causal relationship was that the observed empirical correlation between two variables could not be explained away as being due to the influences of some third variable that causes both of them. In other words, the educational classes and the knowledge attained could not be explained away as being due to the influence of some third variable such as the participant reading a parenting book at the same time the parenting class is offered. In conclusion, most social researchers consider two variables to be causally related if they meet all these three criteria for causality. In this study the first two criteria were met, but the third criteria was threatened by the threats to internal validity. Internal validity refers to the confidence researchers have that the results of the study accurately depict whether educational classes offered by the WIC program were or were not the cause of attaining knowledge by the WIC participants.

The long term goal would be to study the impact of participant's knowledge attained on habit and behavior changes. If it is significant, then such an educational model may be applied to other social service programs. This educational component may be very

effective and successful in decreasing poverty rates, in the future, among low income families with children. Due to the constraints of time, this research study will only focus on the short term goal, which is testing knowledge attainment.

### **SAMPLING**

The unit of analysis for this study is the WIC participant. The WIC participant is identified as a low-income ( defined by the State guidelines as those with family incomes between 130 and 185 percent of the poverty level ) County resident who has been identified by a medical doctor, a nurse, or a nutritionist to have a medical / physical / or nutritional health risk. The participant may be a single and / or a married mother or a father, a grand parent, a relative, or a foster parent who has legal custody of children under the age of 5. The participant may also be a pregnant, breast feeding, or non-breast feeding woman who just had an infant less than 6 months ago.

A probability sample was selected from one WIC clinic site in a city located in an urban County of Southern California. A basic principle of probability sampling is that the sample from the chosen clinic site will be representative of the whole WIC participant population in that specific clinic site. In other words, all members of the population have an equal chance of being selected in the sample. The sample size was between 40 - 60 participants based on evaluating the current enrollment numbers of the site chosen. The average number of enrollment at this site varies from 40 to 60 participants each week.

The main office staff scheduled the new participants in the usual manner. The researcher picked up the list of names after all the slots for that day were filled and assigned numbers to each name for confidentiality and anonymity of the participants. Numbers started from # 1 to # 65. There were four groups of participants and each group was addressed separately. After the participants attended the orientation class, the researcher introduced the study and emphasized that it is voluntary.

Participants signed their informed consents / debriefing statement ( Appendix A ) , and filled out their demographic information during their first appointment in September 1996. They were given same day return appointments. These appointments were assigned only for them on a monthly basis starting from October 1996 to February 1997. Participants were pre-tested, given the class of the month, post- tested, given their incentive as they turned in completed information, and then given a return appointment. The informed consents and demographics were numbered for identification and names were not used to insure confidentiality.

### **DATA COLLECTION AND INSTRUMENTS**

Data was collected from a sample of the WIC population from one of the WIC clinic sites. The clinic chosen has all day new appointments three times a month. Each new appointment day consists of four orientation classes of 15 to 20 new participants who will be enrolled in the program. The main office telephone operators screen participants for eligibility over the phone before giving them an appointment. The requirements for eligibility are to meet the income guidelines for being low income as the State defines it, to be a County resident, and to have a referral form filled out and signed by a medical doctor.

The sample was chosen from the first new day appointments of the month of September 1996. The participants were given an orientation class about the WIC program, and how to use their food prescriptions. The researcher then introduced the study to them. It was made known that participation is voluntary, it will not affect the benefits they receive from the program, and that they will receive an incentive every month they participate in a complete session as an incentive from the researcher. A complete session was defined as taking a pre test, attending the monthly educational class, and then taking a post test.

The instruments, which are the pre and post tests, that were used for this study were specifically created by the researcher ( Appendix C ) . Other instruments have been used before by registered dietitians to evaluate other aspects of the WIC programs, but none were created in the past for measuring the impact of the education classes on the participants knowledge about those five specific topics. Questions were selected from each topic's class outline and handouts provided, which are given to all the teachers in the clinics. The outlines were prepared by the registered dietitian who is in charge of the nutrition education program.

The "pre and post" tests given to participants each consisted of 10 questions. One open-ended question about how they intent to use the information they learned, and nine closed-ended questions about the content of each of the five specific topics. The participants were asked to select an answer to each question from the three possible answers provided by the researcher. The strengths of using questionnaires in this study include: cheaper costs, less time consuming than other methods, offers anonymity, makes large samples feasible, useful in describing the characteristics of a large population, and also for many questions to be asked on a given topic with considerable flexibility. Standardized questionnaires also have an important strength in regards to measurement. They are bound to ask exactly the same questions of all subjects and having to input the same intent to all respondents giving a particular response.

The weaknesses of using questionnaires include : items often represent the least common denominator in assessing people's attitudes, orientations, and experiences. Questionnaires often appear superficial in their coverage of complex topics, can seldom deal with context of social life, and are inflexible in requiring that an initial study design remains unchanged. The researcher may be unaware of a new variable's importance and do nothing about it in any event. The topic of the study may not be amenable to

measurement through questionnaires, and the act of studying that topic may affect its results ( Rubin and Babbie, 1993 ) .

Weaknesses in the proposed questionnaire were addressed in this study by preparing questionnaires that are: spread out and uncluttered, short items, clear and unambiguous, free from double-barreled questions, relevant to most respondents and respondents must be competent to answer them. The concepts and variables in this study were measured nominally. Experts in the agency and other agencies who have created similar instruments for the same population were consulted. This allowed the researcher to make any necessary changes needed to acquire face validity for the instrument. The reliability of the instrument will not be measured.

### **PROCEDURE**

This study was descriptive research project, offering a program evaluation about the impact of the WIC educational classes, on the knowledge attained by the WIC participants. Data was gathered by the researcher once a month for five month. Each month the researcher administered the pre and post test, about the topic of the month, to the same sample group. The data collection period was from the month of September 1996 to the month of February 1997.

The researcher obtained approval and support of the program's manager, the supervising nutritionist, and the registered dietitian in charge of the nutrition education program. The researcher presented to each of them a final copy of the proposal. The researcher also introduced the study to the staff members in the clinic which the group sample was chosen from. It was very important to introduce a clear plan that will not interfere with the staff's work performance, or add to their work load. The researcher also offered each staff member an incentive each month for the five months in order to

thank them for allowing the use of their clinic site and for working on scheduling and other issues as they come up.

The main office staff scheduled the new participants in the usual manner. The researcher picked up the list of names after all the slots for that day were filled and assigned numbers to each name for confidentiality and anonymity of the participants. Numbers started from # 1 to # 65. There were four groups of participants and each group was addressed separately. After the participants attended the orientation class, the researcher introduced the study and emphasized that it is voluntary.

Participants were asked to read and sign two copies of the " informed consent / debriefing statement ". One was for their records to keep and the other was for the researcher. Participant's demographics ( Appendix B ) were collect using a questionnaire. The following information was collected : age, ethnicity, education level, whether they were on the program in this County before, who will they receive benefits for, their marital status.

Each participant received their incentive at the end of each session after they completed the pre test, attended the educational class of the month, and turned in their post test. It was necessary for the researcher to go over each item in the pre and post test to make sure all information was completed to decrease partial data results. After they were all done in the class room the clinic's staff called them individually. They provided them with the WIC services and gave them a specific appointment for the next month. All participants in the study were scheduled for appointments in a specific day of each month.

To sum up the procedure, participants signed their " informed consents / debriefing statement ", and filled out their demographic information during their first appointment in September 1996. They were given return appointments assigned only for them. On a monthly basis starting from October 1996 to February 1997, participants were pre-tested,



given the class of the month, post- tested, given their incentive as they turned in completed information, and then given a return appointment. The informed consents and demographics were numbered for identification and names were used to insure confidentiality.

### **PROTECTION OF HUMAN SUBJECTS**

All participants were assured that this study is voluntary and whether they chose to participate or not, their WIC benefits were not going to be affected. They were also informed that they could withdraw from the study at any time. They were given an informed consent which explained the nature of the study, the duration, and all about what the study involved. Names and telephone numbers of who to call if they have any questions in regards to the study were included in the consent. They were also informed that at the conclusion of this study, they may receive a report of the results upon their request. The researcher asked for the program manager's permission to use incentives. The participants and staff were informed that the incentives are given by the researcher for their participation in the study. Every one was also informed that these incentives have no relationship to the program and every one has the right to accept or refuse them.

### **RESULTS**

Quantitative data analysis were used to test the hypothesis and answer the research question. The data analysis is the process in which the development of a generalized understanding about a social phenomena occurs. In this study the social phenomena was the impact of educational classes on low income families with children. The social phenomena was measured by using variables. The independent variable was " attending the monthly WIC educational class", and the dependent variable was " attaining knowledge of topic ". The data was analyzed by the " EPI 6 " computer program.

Nominal measures ( whose attributes have only the characteristics of exhaustiveness and mutual exclusiveness ) such as: ethnicity, marriage status, on the program before, who receives benefits were measured according to frequency of response. A univariate analysis ( frequency table #1 ) examined the distribution of cases on all the variables, only one variable at a time. The mode was the measure of central tendency used to measure those variables.

**Table #1 : Univariate Table for Nominal Variables**

<b>1- Ethnicity</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
African American	9	14.1%	14.1%
Asian	1	1.6%	15.6%
Caucasian	23	35.9%	51.6%
Hispanic	22	34.4%	85.9%
Other	9	14.1%	100.0%
Total	64	100.0%	
<b>2- Marriage status</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
Married	20	30.8%	30.8%
Divorced	3	4.6%	35.4%
Widow	2	3.1%	38.5%
Single	37	56.9%	95.4%

Other	3	4.6%	100.0%
-------	---	------	--------

Total	65	100.0%	
-------	----	--------	--

3- Who receives benefits	Freq.	Percent	Cum.
Pregnant women	22	33.8%	33.8%
Breastfeeding women	0	0	0
Non Breastfeeding women	0	0	0
Infants	11	16.9%	50.8%
Children	12	18.5%	69.2%
More than one category	20	30.8%	100.0%
Total	65	100.0%	

**Table #2 : A Univariate table for Dichotomous Variables**

On program before	Freq.	Percent	Cum.
Yes	23	35.9%	35.9%
No	41	64.1%	100.0%

Table # 1 shows that 40% of participants were Caucasian, 34% were Hispanics, 14% were African Americans, 1% were Asian, and 15% were other ethnithities. Almost

57% of the participants were single, 31% were married, 5% were divorced, 5% were other, and 2% were widows. 34% of participants receiving services were for pregnant women, 31% were receiving services for more than one category, 18% were receiving services for children ages 1 to 5 years old, and 17% were receiving services for infants ages birth to 12 months old. Table # 2 shows that 64% of the participants were on the program for the first time and 36% of the participants were on the program before.

Ratio measures ( where the attributes composing a variable not only has all the structural characteristics, but also are based on a true zero point ) included : age, educational level, pretest score, and posttest score. These variables were self stated by the participants and measured by the researcher. A bivariate analysis examined the relationship between the pre and post tests' mean score for all topics presented. It was expected that presenting the education classes was a significant factor in the participant's attainment of knowledge. Ratio variables were examined and reported both as frequencies and as correlates of the independent and dependent variable relationship. The mean and median were the measures of central tendency used to measure those variables.

**Table #3 : Univariate Table for Ratio Variables**

<b>1- Age</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
18 - 25	37	57.0%	57.0%
26 - 33	20	30.8%	30.8%
34 - 46	8	12.2%	12.2%
Total	65	100.0%	100.0%

<b>2- Educational level</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
7th grade	2	3.1%	3.1%
8th grade	8	12.5%	15.6%
9th grade	3	4.7%	20.3%
10th grade	10	15.6%	35.9%
11th grade	9	14.1%	50.0%
12th grade	26	40.6%	90.6%
14th grade	3	4.7%	95.3%
16th grade	2	3.1%	98.4%
18th grade	1	1.6%	100.0%
Total	64	100.0%	

Table #3 shows that the average age of the participants was 25.64. Participant's ages ranged from 18 years old as the youngest to 46 years old as the oldest. 57% of the participants were less than 26 of age and the most frequent age was 19. The average level of education among the participants was 11.50. Participant's education levels ranged from 7th grade as the lowest to 18th grade as the highest. 50% of the participants didn't complete the 12th grade, 40.6% finished the 12th grade, and 9.4% had a higher than 12th grade education. The most frequent level of education was 12th grade.

**Table #4 : A Bivariate table of mean scores for pre and post tests for each topic and the p value**

Topic	n	Pre-test mean scores	Post-test mean scores	p
Immunizations	65	7.738	8.077	0.022
Dental Health	56	7.161	8.161	0.452
Parenting	40	7.900	7.850	0.015
Read to child	65	5.769	6.785	0.860
Second-hand	65	6.831	7.492	0.833

Table #4 shows the pre and post-test mean scores. Mean scores show that participants who attended the following topics : immunization, dental health, read to your child, and second-hand smoking, tested higher in the post tests on knowledge about the topic. The parenting class's post-test mean score show that participants didn't score higher on knowledge of topic. A possible explanation may be that the instrument used for testing the Parenting class did not discriminate adequately. Questions used may have been common knowledge among the participants.

An analysis of variance was used to test the statistical significance between the pre-test mean scores and the post-test mean scores. There was a significant positive relationship found between attending the Immunization class and the knowledge attained by the WIC participants. There was a significant negative relationship between attending the Parenting class and the knowledge attained by the WIC participants.

An open ended question was one last variable used in the study to measure how participants intent to use the information attained from the educational classes. 53 out of

65 participants answered after attending the Immunization class and stated the following : they will get the children immunized on time, will read up more about immunizations, will share with others the information learned, will check the children's records to make sure they are up to date, realized how dangerous these disease are.

46 out of 56 participants answered after attending the Dental Health class and stated the following : will not let their baby sleep with the bottle in their mouth, will not give their baby sweet drinks all the time, will keep their gums and teeth clean, will stop giving bottles all the time, will make sure kid's teeth are brushed 2 times a day, will take children to the dentist at 2 years of age, will give kids a cup during the day, will stop using the bottle at 1 year old, will put child to bed without a bottle, will introduce the cup early to the baby, will teach the children to brush their teeth themselves, will share information with other mothers who have new babies, will wipe baby's gum with a wash cloth, and will practice cleaning their teeth every night when their teeth are just coming out. One participant stated that the information was not useful to her because her baby was already off the bottle.

23 out of 40 participants answered after attending the Parenting class and stated the following : will use time out technique for discipline, will be more consistent, will be more patient in dealing with the children instead of yelling and spanking, will discipline with love, will pass on the information to others, will take a parent time-out, will practice the guide lines given in class, and will tell the children " I love you " more often.

47 out of 65 participants answered after attending the Read to your child about nutrition class and stated the following : will keep reading to my children, will have them watch less TV, will help the children read better, will take them to the local library for story time, will read to them at home, public places, and while traveling, will talk to the children more often about fruits and vegetables, will get a library card, will eat right and

read to my baby, will read to the children every day, will expand their vocabulary by reading and save electricity by turning off the TV, will make reading a fun and loving experience, will read to children at an early age, will assign a reading time and place, and will check out books from the library.

39 out of 65 participants answered after attending the Second Hand Smoking class and stated the following : will continue to stay away from smokers, will put up a no smoking sign, will smoke outside the house, will not smoke around the children, will keep people who smoke away from the children, tell others not to smoke in the house or in the car, call resources for more information, will share information with others, will continue not to smoke, and tell smokers about the effects of second hand smoke.

### **DISCUSSION**

This study sought to measure the strength of the impact of the monthly educational classes offered by the WIC program, on the knowledge attained by the WIC participants. The literature review supported the need for programs to focus on ways such as learning experiences that will lead to greater positive individual and group decision-making. Public education is one of the tools that programs need to use to educate the public. This study hypothesized that WIC participants would test higher, after attending the educational class, on knowledge concerning the following topics : immunizations, dental health, parenting, reading to your child about nutrition, and second-hand smoking.

The results of this study did show a significant difference on knowledge attained by participants after attending the immunization class. Participants who attended the WIC immunization class tested higher on knowledge concerning immunization. The results did not show a significant difference on knowledge attained by participants after attending class on the following topics : dental health, reading to your child about nutrition, and second-hand smoking. However, the participant's post test mean scores were higher than



their pre test mean scores in all of the four previous topics. The results also did show a significant deterioration on knowledge attained by WIC participants after attending the parenting class. The post test mean score was slightly lower than the pre test mean scores. However, more than half of the participants, who attended the parenting class, stated the information they learned in the class and how they intent to use it.

The results of this study supported the idea of giving educational classes to the public. Four out of five post test mean scores were higher than the pre test mean scores. However, it may be important to assess which are the topics of interest to the participants. The program serves women, infants, and children. Each of these categories has unique needs and may also have different interests. A participant may have a pre-school age child and her child is off the bottle already. She would not be interested to know about the dental health class which focuses on " baby bottle tooth decay". It is recommended that the agency schedules the participant's appointments according to each category. Then the agency performs a needs assessment to find out the topics of interest among the different categories of participants. The agency then may develop and present classes to address each categories' needs and interests. Such presentations may appeal more to the participants and enhance the learning experience.

The agency may also need to consider developing classes with the emphasis towards promoting behavior changes. The pre test mean scores were high which may imply that the participants had a good knowledge base about the topics before attending the class. Therefore, the class presentations may need to include different practical exercises or role plays instead of using a speaker and / or a video tape. To present and practice making healthy choices in a group environment may bring forth obstacles participants may face. Class time may provide practical tools and problem solving techniques to overcome such obstacles by which healthy choices may be possible.

Yes, the weaknesses of using one-group pretest-posttest design and the weaknesses of using questionnaires did effect the results of this study as discussed in the method section. However, the study was very feasible, useful, and provided feedback to the program's administrators and staff. This study brought to the agency's attention that knowledge attainment is important. Further studies are recommended to find out what the participants view as their needs from the program. Studies should also research whether knowledge attainment has an impact on behavior change, and if not what would impact behavior change. Currently the agency is planning to have focus groups to develop a participant's survey questionnaire. This survey will aim to measure the participant's level of satisfaction in regards to the nutrition education classes, the breastfeeding classes, and the one to one counseling provided through the WIC program.

The WIC program reaches out to many people as the demographics show. It reaches out to the most vulnerable population which is poor women and their children. The participation show rate was high, among the WIC participants, compared to any other program that offers educational groups or therapeutic groups. Participants showed up to receive their coupons. Many of them gained benefits from attending the educational classes, but many of them may have not attended the educational class if the coupons were not provided. In this welfare reform era, it is our duty as social workers to find ways to provide poor families with children with the necessary tools, skills, and resources to promote certain behavior changes. It is also our duty to provide substantial research to assist and guide policy makers in making reasonable and effective policies for every one, especially for women and children.

## **APPENDIX A**

### **Informed Consent and Debriefing Statement**

The study in which you are about to participate is designed to evaluate how strong the WIC education class impacts the knowledge attained by the participants. This study is conducted by Enas Joseph under the supervision of Dr. Teresa Morris, Chair of the Social Work Department. This study has been approved by the Human Subject Committee of the Department of Social Work at California State University, San Bernardino ( CSUSB ). In this study you will be asked questions on different class topics presented through the WIC monthly educational class over five months at the beginning and the end of the class session. Each monthly questionnaire will have 10 questions where you just circle the answer that you think is correct. The researcher will be available in each session to answer any questions. The questions will only take about 10 minutes and will take place in the WIC classroom.

Please be assured that any information you provide will be held in strict confidence by the researchers. At no time will your name be reported along with your responses. All data will be reported in a group form only. At the conclusion of this study, you may receive a report of the results by contacting ( at the end of June 1997 ) Enas Joseph at the WIC program ( 909 ) 387-6075 or Enas Joseph and Dr. Teresa Morris at CSUSB ( 909 ) 880- 5501. Please be assured that your participation is totally voluntary and you are free to withdraw at any time during this study without penalty, and to remove any data at any time during this study. Whether you choose to participate or not, will not affect the services provided by the WIC program. Also, remember that the incentives are from the researcher to you as a gift for participation, and is not related to the WIC program in any manner. Every one has the right to accept or refuse the incentive offered. I acknowledge that I have been informed of, and understand, the nature and purpose of this study, and I freely consent to participate. I acknowledge, I am at least 18 years old.

**Participant's Signature**

**Date**

\_\_\_\_\_

\_\_\_\_\_

**Researcher's Signature**

**Date**

## **APPENDIX B**

### **Participant's Demographics**

This information is collected for statistical reasons only and will be totally confidential as stated by the researcher in the informed consent.

Please circle or write in the correct answer ( about you ) to the following questions:

1- Age : \_\_\_\_\_ .

2- Ethnicity :

1- African American.

2- Asian.

3- Caucasian.

4- Hispanic.

5- Other.

3- Education level completed : \_\_\_\_\_ .

4- Were you on the program in this county before?

1- Yes.

2- No.

5- Who will receive program's benefits today in your family?

1- Pregnant.

2- Breast-feeding.

3- Non Breast-feeding.

4- Infant ( birth to 12 months ).

5- Child ( 1 to 5 years old ).

6- Marriage Status :

1- Married

2- Divorced.

3- Widow.

4- Single.

5- Other.

**THANK YOU FOR YOUR ANSWERS.**

Please turn this form with the signed informed consent to the researcher.

**DO NOT FORGET** to keep a copy of the informed consent and your **FREE GIFT** from the **RESEARCHER!**

## **APPENDIX C**

### **Pre and Post Tests**

#### **#1- IMMUNIZATION ( Pre &Post - TEST )**

**Please circle the letter ( a, b, or c ) for what you think is the correct answer to each of the following questions.**

**1- Are you currently attending other classes about Immunizations ?**

**a- Yes**

**b- No**

**2- When should a baby begin their shots ?**

**a- Six months**

**b- Four to six years**

**c- Birth or two months**

**3- What can happen to kids who don't get immunized ?**

**a- Children can get deadly diseases**

**b- Nothing bad can happen**

**c- They grow big and strong**

**4- Who requires proof of immunizations ?**

**a- Child care**

**b- Nobody**

**c- Both child care and schools**

**5- How many immunization visits to a doctor should a child make before age two ?**

**a- At least six**

**b- At least four**

**c- One**

6- Where can you get immunizations ?

a- WIC clinic

b- Public Health or your health care provider

c- Mental health clinic

7- What are two child's diseases that immunizations protect against ?

a- Tooth decay and Polio

b- Measles and Mumps

c- Anemia and Asthma

8- At what ages should a child get immunizations ?

a- 2 months, 4 months, 6 months, 12 to 15 months, 4 - 6 years

b- Birth, 2 months, 6 months, 12 - 15 years

c- 6 months, 12 - 15 months, 4 - 6 years

9 - Do you intent to use the information you learned today?

a- Yes.

b- no.

10 - How do you intent to use the information you learned today?

Answer : \_\_\_\_\_

THANK YOU FOR YOUR ANSWERS.

Please turn in your questionnaire and **DO NOT FORGET** your **FREE GIFT** from the **RESEARCHER!**

## **#2- DENTAL HEALTH ( POST - TEST )**

**Please circle the letter ( a, b, or c ) for what you think is the correct answer to each of the following questions.**

1- Are you currently attending any other classes about Dental Health?

a- Yes.

b- No.

2- What is " Baby Bottle Tooth Decay " ?

- a- A form of severe painful tooth decay.
- b- A disease no one can prevent.
- c- An adult disease only.

3- How does baby bottle tooth decay happen ?

- a- From only breast-feeding an infant.
- b- From only bottle-feeding an infant.
- c- From allowing a baby to fall asleep with a bottle and to have a bottle for long periods of time.

4- What are some of the liquids with sugar that people put in bottles?

- a- Breast milk, formula, or milk.
- b- Juice, punch, fruit drink, and soda.
- c- Both a and b.

5- What is the one liquid without sugar that people may put in bottles?

- a- Baby Juices.
- b- Milk.
- c- Water.

6- Why are baby teeth important?

- a- To enhance a child's self esteem.
- b- To help baby talk properly and eat solid foods.
- c- Both a and b.

7- How can you prevent baby bottle tooth decay?

- a- Feed only formula or water from a bottle, and only during feeding times. Clean baby's teeth at least once a day.
- b- Teach your baby to use a sippy cup at 7 months of age.
- c- Both a and b.

8- What can you do to soothe a fussy baby who was just fed and changed?

a- Give a pacifier, a security blanket, or a stuffed animal to hold.

b- Give more breast milk or formula.

c- Both a and b

9- Do you intent to use the information you learned today?

a- Yes.

b- No.

10- How do you intent to use the information you learned today?

Answer : \_\_\_\_\_

THANK YOU FOR YOUR ANSWERS.

Please turn in your questionnaire and **DO NOT FORGET** your **FREE GIFT** from the **RESEARCHER!**

### **#3 - PARENTING ( PRE & POST -TEST )**

**Please circle the letter ( a, b, or c ) for what you think is the correct answer to each question.**

1- Are you currently attending any other classes about Parenting?

a- Yes.

b- No.

2- What is an appropriate way you can deal with a child's " BAD " behavior?

a- Bribe the child by giving candy.

b- Give time out instead of yelling, screaming, and hitting.

c- Tell the child how bad they are.

3- What is discipline?

a- Is to teach your child to be responsible for their own actions.

b- Is to punish your child.

c- Is to let the child do whatever you want.



4- Why is discipline important?

- a- Helps prevent problems as the child grows older.
- b- Encourages acceptable behavior and self discipline.
- c- Both a and b.

5- When does discipline start and ends?

- a- At age 5 to age 30.
- b- At birth and continues until the child becomes an adult.
- c- At age 12 to 16.

6- What are the guidelines for discipline?

- a- Set limits and avoid empty threats.
- b- Be positive, prompt, and consistent.
- c- Both a and b.

7- Why is it important to tell the child which behavior they are punished for?

- a- To understand and take responsibility for their actions.
- b- Because they demand to know.
- c- Because they need to question every thing you say.

8- To discipline with LOVE, you need to:

- a- Praise your child for good behavior and tell them that you love them.
- b- Discourage bad behavior and tell them that you love them.
- c- Both a and b.

9- Do you intent to use the information you learned today?

- a- Yes.
- b- No.

10- How do you intent to use the information you learned today?

Answer : \_\_\_\_\_

THANK YOU FOR YOUR ANSWERS.

Please turn in your questionnaire and **DO NOT FORGET** your **FREE GIFT** from the **RESEARCHER!**

**#4 - READ TO YOUR CHILD "NUTRITION" ( PRE &POST TESTs )**

**Please circle the appropriate letter ( a, b, or c ) for what you think is the correct answer to each question.**

1- Are you currently attending any other classes about reading to your child?

a- Yes.

b- No.

2- Why is it important to read to your child?

a- It is a creative positive way to teach them.

b- Children will know that you love them.

c- Both a and b.

3- At what age can you start reading to your child?

a- New born baby.

b- Pre-school and elementary school-age.

c- High school-age.

4- How much time is recommended each day to start reading to your child ?

a- 1 to 3 hours.

b- 5 to 10 minutes.

c- Both a and b.

5- Why is it important to teach your child early about different foods?

a- To prevent tooth decay.

b- Both a and c.

c- To teach them good eating habits at a young age.

6- How many hours a day is recommended for a child to watch TV ?

a- 1-2 hours.

b- 2-3 hours.

c- 3-4 hours.

7- How many servings of fruits and vegetables are recommended a day?

a- 8 servings of fruits and vegetables each day.

b- 3 to 5 servings of fruits and vegetables each day.

c- 5 servings of fruits and vegetables each day.

8- Where can your child check out books at no cost to learn more about healthy choices?

a- At local public libraries.

b- At local book stores.

c- Both a and b.

9- Do you intend to use the information you learned today?

a- Yes.

b- No.

10- How do you intend to use the information you learned today?

Answer : \_\_\_\_\_

THANK YOU FOR YOUR ANSWERS.

Please turn in your questionnaire and **DO NOT FORGET** your **FREE GIFT** from the **RESEARCHER!**

#### **#5 - SECONDHAND SMOKE ( Pre &POST -TEST )**

**Please circle the letter ( a, b, or c ) for what you think is the correct answer to each question.**

1- Are you currently attending any other classes about Secondhand Smoke ?

a- Yes.

b- No.

2- What is secondhand smoke?

a- It is breathing the smog in the air.

b- It is the smoke that is in the air whenever a person smokes a cigarette, cigar, or a pipe.

c- Both a and b.

3- Secondhand smoke is :

a- Not harmful at all.

b- Just as bad as cigarette smoking.

c- Worse than cigarette smoking.

4- What are some of the harmful effects of secondhand smoke ?

a - Lung cancer, heart disease, and bronchitis.

b- Tooth decay.

c- Back problems.

5- What harmful effects can secondhand smoke have on the unborn baby?

a- Low birthweight.

b- Premature births.

c- Both a and b.

6- What harmful effects can secondhand smoke have on children?

a- Increases the risk of getting asthma, ear infections, and colds.

b- The child is more likely to become a smoker as an adult.

c- Both a and b.

7- What are ways to protect your child from second-hand smoke?

a- Stay away from people while they are smoking in public places.

b- Allow people to smoke in your car.

c- Allow people to smoke in your home.

8- Who can you call for additional information about secondhand smoke?

a- The cigarette companies.

b- Tobacco Use Reduction Now ( 1-800-637-6653 ) .

c- Both a and b.

9- Do you intend to use the information you learned today?

a- Yes.

b- No.

10- How do you intend to use the information you learned today?

Answer : \_\_\_\_\_

THANK YOU FOR YOUR ANSWERS.

Please turn in your questionnaire and **DO NOT FORGET** your **FREE GIFT** from the **RESEARCHER!**

## REFERENCES

- Brownson , R . C . , Alavanja , M . C . , Hock , E . T . , & Loy , T . S . ( 1992 ) .  
Passive Smoking and Lung Cancer in Nonsmoking Women. American Journal of  
Public Health, 82, pp. 1525 - 1530 .
- Chapman , S . , Borland , R . , Hill , D . , Owen , N . , & Woodward , S . ( 1990 ) . Why  
the Tobacco Industry Fears the Passive Smoking Issue. International Journal of  
Health Services, 20, pp. 417 - 427 .
- Chilman , C . S . ( 1995 ) . Note on Policy, Programs and Policies for Working Poor  
Families : Major Trends and Some Research Issues. Social Service Review, 69,  
pp. 515 - 524 .
- Cohen , L . K . ( 1981 ) . Dentistry and the Behavioral Social Sciences : A Historical  
Overview. Journal of Behavioral Medicine, 4, pp. 247 - 256 .
- Cunningham , C . E . , Bremner , R . , & Boyle , M . ( 1995 ) . Large Group  
Community-Based Parenting Programs for Families of Preschoolers at Risk for  
Disruptive Behavior Disorders : Utilization, Cost Effectiveness, and Outcome.  
Journal of Child Psychology and Psychiatry, 36, pp. 1141 - 1159 .
- Day , P . J . ( 1989 ) . A New History Of Social Welfare. New Jersey .
- Ewalt , P . L . ( 1994 ) . Poverty Matters . Social Work, 39, pp. 149 - 151 .
- Gilchrist , L . D . , Schinke , S . P . , & Whittaker , J . K . ( 1986 ) . The Ecological  
Paradigm In Child, Youth, and Family Services : Implications for Policy and  
Practice. Social Service Review, 60, pp. 483 - 503 .
- Guba , E . C . ( 1990 ) . The Paradigm Dialogue. Newbury Park : Sage.
- Halpern , R . ( 1991 ) . Supportive Services for Families in Poverty : Dilemmas of  
Reform. Social Service Review, 65, pp. 343 -364 .
- Huston , A . C . ( 1991 ) . Children In Poverty. New York .
- Innes-de-Neufville , J . ( 1982 ) . Social Indicators of Basic Needs : Quantitative Data for  
Human Rights Policy. Social Indicators Research. 11, pp. 383 - 403 .

- Kovar , M . G . , Jack , S . , & Bloom , B . ( 1988 ) . Dental Care and Dental Health : NHIS. American Journal of Public Health, 78, pp. 1496 - 1497 .
- Lozoff , B . ( 1989 ) . Nutrition and Behavior. American Psychologist, 44, pp. 231 - 236 .
- Lynn , L . E . ( 1990 ) . The Rhetoric of Welfare Reform : An Essay Review. Social Service Review, 64, pp. 175 - 188 .
- Owen , M . T . , & Mulvihill , B . A . ( 1994 ) . Benefits of A Parent Education And Support Program In The First Three Years. Family Relations, 43, pp. 206 - 212 .
- Perry , C . L . , Luepker , R . V . , Murray , D . M . , Kurth , C . , Mullis , R . , Crockett , S . , & Jacobs , D . R . ( 1988 ) . Parent Involvement with Children's Health Promotion : The Minnesota Home Team. American Journal Of Public Health, 78, pp. 1156 - 1160 .
- Robinson , C . A . , & Bart , K . J . ( 1993 ) . Disease Prevention Through Immunization : The Beginning of Health Care Reform. Public Health Reports, 108, pp. 417 - 418.
- Rubin , A . , & Babbie , E . ( 1993 ) . Research Methods For Social Work. Pacific Grove, California .
- Saward , E . , & Sorensen , A . ( 1978 ) . The Current Emphasis on Preventive Medicine. Science, 200, pp. 889 - 894 .
- Schorr , L . B . ( 1990 ) . Successful Health Programs for the Poor and Underserved. Journal of Health Care For the Poor and Underserved, 1, pp. 271 - 277 .
- Singer , M . R . , Moore , L . L . , Garrahe , E . J . , & Ellison , R . C . ( 1995 ) . The Tracking of Nutrient Intake in Young Children : The Framingham Children's Study. American Journal of Public Health, 85, pp. 1673 - 1677 .
- Telleen , S . , Herzog , A . , & Kilbane , T . L . ( 1989 ) . Impact of A Family Support Program on Mothers' Social Support And Parenting Stress. American Journal of Orthopsychiatric Association, 59, pp. 410 - 419 .
- The National Association Of WIC Directors ( 1994 ) . Legislative Alert. Washington DC.
- United States Environmental Protection Agency, Summary of the 1993 report . ( 1994 ) . Second-Hand Tobacco Smoke. Congressional Digest, 73, pp. 130 - 160 .

Wang , V . L . ( 1972 ) . Mobilizing Resources for Health Education. Journal of Extension, 10, pp. 36 - 43 .

Woods , D . R . , & Mason , D . D . ( 1992 ) . Six Areas Lead National Early Immunization Drive. Public Health Reports, 107, pp. 252 - 256 .