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An outcome evaluation of the BABES (Beginning Alcohol & Addiction Basic Education Studies) alcohol and drug abuse prevention program for first grade students : a case study

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Evaluation of the
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Alcohol & Addiction
Basic Education...

June 2, 1996

**An Outcome Evaluation of the BABES
(Beginning Alcohol & Addiction Basic Education Studies)
Alcohol and Drug Abuse Prevention Program
for First Grade Students:
A Case Study**

submitted by

Alice M. Mesaros

A Thesis
Presented to the Graduate and Research Committee
of Lehigh University
in Candidacy for the Degree of
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Social Relations

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Date

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ABSTRACT

The short-term effectiveness of the BABES (Beginning Alcohol and Addiction Basic Education Studies) alcohol and drug abuse prevention program for first grade students was measured in this case study. The program was developed for young children aged 4 to 8 years by the Greater Detroit Area Branch affiliate of the National Council on Alcoholism and Drug Dependence. During the Fall of 1995, first grade students (n=59) from three classrooms in a single school received a weekly 45 minute lesson for 7 weeks by the same program facilitator. The lessons topics addressed are: self-image, feelings, peer-pressure, decision-making, coping skills, seeking help, the effects of alcohol and drug abuse, and personal privacy. A Pretest-Posttest with no control group design was used, a knowledge test with questions based directly on program content was administered, and a comparisons of means was conducted. Participants scored significantly higher at the posttest overall as well as on several select questions. Results indicated that at pretest, the children were already able to identify beer with ease; however, the low pretest and the improved but still low posttest results for the questions testing their knowledge about the effects of alcohol and drug abuse are perplexing. The greatest effects were seen on measures of the children's knowledge at posttest about coping skills and about when to use drugs (medicine). Although the program appears to have a short-term effect, this must be regarded with caution due to the threats to validity inherent in the evaluation design.

INTRODUCTION

The age at which youth start using alcohol and other drugs has been steadily declining in recent years (Blum & Richards, 1979; Moberg & Haun, 1991). Research suggests that a child's attitudes and behavioral patterns are molded as early as the preschool years (Moberg & Hahn, 1991). By the age of three, most youngsters can identify beer and liquor (Miller, Smith and Goldman, 1986); recognize the consequences of health-related behavior (Moberg & Hahn, 1991); and discern drug abuse (Moberg & Hahn, 1991).

National, state, and community concerns about alcohol and drug related problems have provided intense impetus for the implementation of substance abuse prevention programs for school-age children. "Yet, for a variety of social, psychological, and political reasons, prevention strategies frequently are adopted without strong (or even weak) scientific evidence of their potential effectiveness" (Howard, 1993). The task of determining effectiveness has in many instances been undertaken after the programs have been adopted and/or issues of accountability have been raised.

A Case Study: The Outcome of BABES for First Grade Students

The BABES (Beginning Alcohol and Addiction Basic Education Studies) program is the focus of this thesis which is a student-based outcome evaluation of the impact of the program on first graders. The hypothesis was that there would be a statistically significant knowledge gain. BABES has been used by the Bangor Area School District in Pennsylvania for several years. Both the agency providing the program

and the school district have judged its merit based upon the parents' and teachers' qualitative evaluations, not upon evaluations of its impact on the students.

Developed in 1978 by the Greater Detroit Branch of the National Council on Alcoholism and Drug Dependence (NCA-GDA) in Detroit, Michigan, BABES is a prominent alcohol and drug abuse prevention program. Through the use of images, puppets, and storytelling, BABES presents information to preschool and beginning elementary school children on alcohol and drugs while teaching the life skills needed to avoid substance abuse. The program is taught by a certified presenter and is organized into seven lessons, one lesson per week: 1) Self Image and Feelings; 2) Decision Making and Peer Pressure; 3) Coping Skills; 4) Alcohol and Other Drug Information; 5) Getting Help; 6) When You Don't Know What To Do (Personal Privacy); and 7) Review and Certification (NCA-GDA, 1978).

While the program was designed to positively impact on the psychosocial skills listed above, as well as to increase knowledge about the effects of alcohol and other drugs, expectations for the purpose of this thesis were less ambitious. It is unlikely that a program that is limited to seven hours can have a significant impact on traits such as self-esteem or on skills such as coping or decision-making. It was therefore decided that the initial effort would be limited to determining if the first graders who received the BABES program had an increase in knowledge about the effects of alcohol and other drugs and other information presented in the program.

BABES: A Primary and Skill Based Program

Prevention programs, such as BABES, offered at the elementary school level are considered "primary prevention". They are directed toward, but not limited to, youth

who have not started using alcohol or other drugs. In general, they focus on reducing the number of new alcohol and other drug (AOD) users, preventing the development of AOD use problems, and enhancing individual strengths as an inoculation against AOD use (Linney & Wandersman, 1991).

Skill-based programs are prevalent in the field of substance abuse prevention. While BABES, a skill-based program, was designed for children from four to eight years old, most have been designed for children who are at least ten years old. The emphasis in skill-based programs is on teaching children and adolescents personal and social skills which it is hypothesized will make it easier for them to resist using alcohol and other drugs. The theory behind this approach is that many young people begin using substances because they are lacking one or more of these skills which would allow them to conclude that the substances are unappealing or resistible (Jessor & Jessor, 1980). Many programs teach children techniques to resist peer pressure (Botvin et al, 1984; Duryea et al, 1984) while others emphasize decision-making under the assumption that young people who have been taught how to consider risks and alternatives will be less likely to choose to use substances (Botvin et al, 1984, Grady et al., 1986). Other program approaches focus on building self-esteem and coping skills assuming that these personal competencies will make it easier for them to resist pressures to use alcohol and other drugs (Botvin, 1983). Many programs address several skill areas as is the case with the BABES program.

While the emphasis is primarily on skills, it should be understood that nearly all prevention programs include information about the consequences of the use of alcohol and other drugs, mainly focusing on short-term and social consequences. The assumption is that they will be able to combine the knowledge with the skills, and will find it easier to avoid the consequences associated with the use of alcohol and other drugs.

Current Evidence of Effectiveness

BABES is one of three popular skill-based prevention programs used in elementary schools across the country. However, evidence of the effectiveness of BABES is sparse. Two studies were found (Abbey et al, 1990; Carns and Belcove-Shalin, 1993). Abbey et al, (1990) evaluated the impact of the BABES program on fifty-five second grade students using a pretest-posttest control group design. The study reports that "program participants scored significantly higher than control group members at the posttest on a knowledge test with questions based directly on program material". There was also an increase in a rejective attitude toward alcohol and drugs. However, measurement of psychosocial skills revealed that the program had little effect in this area. The research conducted by Drs. Carns and Belcove-Shalin (1993) involved the refinement of the test instruments used to evaluate the impact of the BABES program and the evaluation of the impact of the program. The study involved 286 preschoolers aged three through five who were enrolled in the Head Start Programs in Las Vegas, North Las Vegas, and Henderson, Nevada. It was determined that the instrument which consisted of twelve pictorial multiple choice questions proved to be valid markers of student knowledge. Additional data runs indicated that although scores on the pre-test were relatively high there was a significant increase in student knowledge for each BABES lesson. The methodology involved a cluster, stratified, random sampling.

The two other popular and more widely evaluated programs are: D.A.R.E. (Drug Abuse Resistance Education), and the HERE'S LOOKING AT YOU generations of programs hereafter abbreviated (HLAY, HLAY2, AND HLAY2000). A profile of the BABES, DARE, and HLAY programs is presented in Appendix A, Chart : Elementary School Prevention Programs. The reviews (Hansen ,1993; NIAAA, 1993; Green and

Kelley, 1989) of HLAY2 revealed that in addition to a myriad of methodological problems associated with the evaluations of these programs, it appears that their effectiveness has been limited to an increase in knowledge with minor or no evidence of impact on attitude or behavior. Furthermore, the HLAY2 studies targeted fourth graders through twelfth grade students but not first graders.

Though not reviewed as widely as HLAY, HLAY2, and HLAY2000, in an evaluation of Project DARE (Ringwalt et al. 1991) "indicated that, although the program had affected such outcomes as self-assertiveness, attitudes about substances.....it had no effect on students' use of or intent to use alcohol." A long-term controlled study (Clayton et al. 1991) also found no overall impact of the program on alcohol use in a 2-year follow-up of students. Although versions of the DARE program are also available for the lower and upper grades, none of the evaluations included first grade students.

The evidence suggests that one can expect prevention programs in the elementary grades to have an impact on knowledge; however, there is insufficient evidence to suggest they will have a significant or long-term effect on attitude or behavior. With this information in mind, the outcome evaluation of this study will seek answers to the following questions:

- Did the program have a knowledge-gained effect on the first graders?
- How did the pretest scores compare with the posttest scores on each of the questions?
- Was there a classroom related difference in the pretest/posttest scores?
- Was there a gender related difference in the pretest/posttest scores?

LITERATURE REVIEW

SUBSTANCE ABUSE ISSUES INFLUENCING THE DEVELOPMENT OF EARLY PREVENTION PROGRAMS

The level of alcohol and drug use among adults in the United States has serious implications for the development of early prevention programs for our youth. It is reported that "in 1989, apparent per capita consumption of alcohol in the United States was 2.43 gallons of pure alcohol....Translated to more immediately meaningful data, 2.43 gallons of pure alcohol represents approximately 576 12-ounce cans of beer:" (NIAAA,1993). Studies have shown that an alcohol related family problem strikes one of every four American homes (Gallup Poll, 1987) and that children of alcoholics and other drug abusers are at high risk for alcohol and other drug use problems (Volicer et al, 1983). In a review of family studies (Merikangas, 1990) it was "reported that on average the risk for developing alcoholism is seven times greater among first-degree relatives of alcoholics" than among non-alcoholics. It is reported that about 70% of youth in treatment for chemical addiction come from alcoholic or drug-abusing homes (Heuer, 1986). Children of alcoholics and other drug abusers are also found at very high rates among children with a history of being physically and sexually abused (Behling, 1979).

Although a number of prevention programs have targeted adolescents, recent evidence of the downward trend in the age of first use was brought to light in the Monitoring the Future Study (Johnston et al, 1994). In the study, self-reports by students indicated that for some, the incidence of first use occurs as early as fourth grade, while a

survey by The Weekly Reader, (1990) revealed that thirty-five percent of fourth graders report having been pressured by their classmates to drink. The same study reports that ninety-three percent of students in grades four to six know that cocaine or crack is a drug but less than half of these students call beer, wine, or liquor a drug. Interestingly, children in grades two and three learn most of their information about the dangers of alcohol and other drugs from their teachers, parents, and television (Weekly Reader, 1990). The development of early school-age prevention programs such as BABES has been and continues to be influenced by the work of epidemiologic researchers who study the scope of substance abuse.

ETIOLOGIC CONTRIBUTIONS TO THE DEVELOPMENT OF EARLY PREVENTION PROGRAMS

Understanding the causes of alcohol use and problems related to use among youth is essential to the development of effective school-based prevention strategies. Researchers have learned that, "Substance use is the result of a complex interplay of cognitive, attitudinal, social, psychological, and developmental factors. Psychological factors such as low self-esteem, low sense of control, low self-confidence, increased anxiety and impulsivity, and lower assertiveness have been shown to increase risk for substance use (Dusenbury and Botvin, 1992)." Available theory and research suggests that the risk factors associated with early alcohol and other drug abuse and related problems can be found at several levels, including individual characteristics, family history and environment, peer influences, school performance and school environment.

Prevention programs, such as BABES, that address individual characteristics and peer influences are far and away the most common (NIAAA, 1993).

Risk Factors for Alcohol and Drug Use

Substance use theories have led to the development of twelve prevailing strategies for addressing the variables known as risk factors for alcohol and drug abuse. Risk factors occur before substance abuse and are associated statistically with an increased probability of alcohol and drug abuse. A risk-focused approach seeks to prevent drug abuse by eliminating, reducing, or mitigating its precursors” (Hawkins et al, 1992). The relative success of this approach regarding heart and lung disease (Bush et al., 1989) and school failure (Berrueta-Clement et al., 1984) lends support for the use of this approach in the prevention of alcohol and drug abuse problems (Hawkins et al, 1992).

In a recent review by Hansen (1992) of school-based alcohol prevention curricula that have been evaluated in the literature, 12 strategies already in use by prevention programs were identified. Each strategy assumes the existence of a particular modifiable risk factor and targets that risk factor for change. The strategies used to address risk factors have come to be known as the “building blocks” and can be found in virtually all substance abuse programs, including those targeting the very young. . The following is a list of the strategies, summarized by Hansen (1993), that are employed in the BABES program, and the assumed risk factors they address:

<u>Strategy</u>	<u>Assumed Risk Factor</u>
1. Normative beliefs.....	Belief that alcohol use is acceptable among youth
2. Information.....	Unawareness of the consequences of alcohol use and abuse
3. Resistance skills.....	Peer Pressure

4. Alternatives.....Unawareness of alternatives to alcohol for enjoyment
5. Decision-making skills.....Inability to make reasoned decisions
6. Self-esteem.....Low self-esteem
7. Stress skills.....Poor coping skills
8. Assistance skills.....Unawareness of support systems
9. Life skills.....Poor social skills

The characteristics of each strategy and the theoretical program mechanism will be examined at length in the discussion about the rationale for the BABES program.

SOCIAL LEARNING THEORY: THE FOUNDATION FOR THE BABES PROGRAM

Social Learning theories have dominated the field of substance abuse prevention. They are learning theories that have been applied to social situations and are the most widely applied theories because they provide a framework for schools to implement social skills strategies into the curriculum (Taylor, 1992) . The strategies evolving from the identification of risk factors fit this theoretical framework.

The BABES program is grounded in the Social Learning Theory (Bandura & Walters, 1973) which emphasizes the importance of social imitation, modeling or copying, and behavior intervention in learning new skills. This theory views children as being able to learn new responses by observing others, without necessarily having had the opportunity to make the response themselves. It is believed that children will learn a new skill without having been rewarded (reinforced); and, equally important, without the "model" having been rewarded. However, if the model is rewarded for his or her

behavior, the child is more likely to copy him than if he had not been rewarded. This is known as vicarious reinforcement (Lindzey, Hall, Thompson, (1975).

Strong support for the "modeling effect" can be found in the studies of the relationship between parental smoking and children's intentions to smoke, experiment with smoking, and as adolescents, frequency of smoking. Shute et al. (1981) reported that half of a sample of preschool and first grade children who were exposed to smoking in their homes said they intended to smoke in the future, compared to 11 percent who were not exposed. Ahmed et al (1984), in their study of urban children in grades kindergarten through sixth, reported that having a parent who smoked doubled the probability that a child said he or she intended to smoke in the future. The same study reported that similar results were found for other abusable substances, i.e. alcohol and marijuana. *Research suggests that modeling is strongest in preschool and early school years*, thus social learning theory is a particularly appropriate framework for the BABES program.

Social skills, as with other behaviors, are learned through a combination of modeling and reinforcement. The child's ability to develop these skills depends on being able to observe and practice them. The BABES program provides opportunities for vicarious reinforcement when the children watch and listen to the puppets conveying the lessons. It is assumed an identification and modeling effect will occur because the puppets are introduced as being the same age as the children in the classroom. The program also provides the children with opportunities to practice imitating what they have seen by allowing them to retell the stories to their peers and to practice the skills they observed when they participate in reinforcing activities that are part of the program.

The BABES program has also applied social learning theory's cognitive development approach in the program design. The hypothesis is that programs that are designed in a way that is appropriate for the child's stage of development will be more likely to hold the child's attention. By dividing each lesson into three components of short duration, BABES sustains their attention and involvement while providing the children with predictable structure. By keeping the problem solving steps simple, and providing opportunities to model and demonstrate behaviors, BABES keeps the children engaged in learning. The program design also accommodates the theoretical assumption that children apply their own logic as they make sense of their world, by providing opportunities for them to retell the story in each lesson, thereby allowing the program facilitator to help correct any misinterpretations or confusion the children might have about the what they saw, heard, and learned.

RATIONALE FOR THE BABES PREVENTION PROGRAM

The program is unique in that its focus is on early elementary school-age children. The extent to which alcohol and other drug abuse touch the lives of children, as evidenced in the epidemiologic research reported above, provides a reasonable rationale for prevention programs in the lower elementary grades. The strategies and assumed risk factors were identified above. What follows will be a discussion of the characteristics of the strategies within the BABES program and the theoretical program mechanism.

The BABES Program is a "skill-based" program that approaches the risk factors for substance use through a combination of social influence and affective education

strategies that are designed to produce the “modeling effect” as hypothesized in social learning theory. In addition to presenting information and feedback about normative beliefs, the lessons address self-esteem, peer pressure resistance, alternatives to alcohol use, decision-making, coping, seeking help, and drug and alcohol information. There are seven puppet characters, five introduced as the same age as the children receiving the program and two older and wiser ones, that are used to model appropriate behavior such as resisting peer pressure, asking for help, coping with disappointments, and making good decisions. The puppets are used to transmit knowledge about alcohol and drug issues along with explanations of why it is important to stay healthy and why it is important to be kind to others. Theoretically the children will learn vicariously.

The program places emphasis on how children are responsible for the decisions they make even when they have been pressured into the decision. It is hypothesized that this will make the children realize it is important to apply the skills being modeled in the program when they face peer pressure or have to make decisions about using alcohol or other drugs. It is also stressed that they cannot use the excuse “They made me do it.”

Another aspect of the program involves helping the children understand that asking for help is acceptable and sometimes it is even “smart and brave”. Fear or embarrassment often deter children from seeking help. Reasons why it is important to ask for help are given in the lessons; and, ways to ask for help are modeled by the story characters. The assumption is that if they ever do develop a problem with alcohol or other drugs, they will be more likely to seek help.

Information about alcohol and drugs is presented in a manner that counters messages from society, family, or media, that one needs alcohol and drugs at a party to have a good time, to feel good, or that alcoholics are weak. It is believed that by

correcting erroneous beliefs about alcohol and drugs the children will feel less need to use alcohol and other drugs to have a good time.

Social learning theory proposes that children who live in a family or environment where alcohol and/or drug abuse are part of daily life will be more likely to turn to substance use themselves because of the modeling effect as supported in the research by Ahmed et al (1984) . A large part of what makes BABES unique is that within each lesson there are "family situations" that pose problems for the main characters in the stories to overcome. The situations might be interpreted as the result of substance abuse. It is believed that children who live in substance abusing homes will recognize familiar aspects of the stories and will respond more attentively to the lessons. The theory is that the children will then be able to model the skills they learn from the BABES characters who apply those skills to dealing with problems similar to their own. The lessons are generic enough to be meaningful for all children, not just children of substance abusers although the latter may find the problem situations familiar.

This thesis has assumed that Social Learning Theory and a risk-focused approach provide an appropriate foundation for this early childhood prevention program.

RESEARCH DESIGN AND METHODOLOGY

RESEARCH HYPOTHESES

The hypothesis is that the BABES program will significantly raise the level of knowledge of the experimental group. The second hypothesis is that there will be significant differences between the pretest and posttest frequencies on the individual

items on the inventory. The third hypothesis is that there will be no difference in knowledge as a result of the intervention that can be attributed to classroom assignment. The fourth hypothesis is that there will be no difference in knowledge as a result of the intervention that can be attributed to gender.

DESIGN

In approaching the problem of measuring the effect a classroom program has on children, there are two appropriate evaluation designs which can be employed. They are the true experimental or a quasi-experimental design. When circumstances preclude the use of these designs, a third option would be to employ a pre-experimental design.

The most effective of these is the true experimental design in which a group of program facilitators is randomly selected from a pool of program facilitators all of whom have been similarly trained to deliver the program to be evaluated. They are then randomly assigned to the experimental and control classrooms. This procedure would minimize bias due to variations in facilitator quality and values. Students would then be randomly assigned to these experimental and control classrooms, both groups would be pretested, and the program would be delivered to the experimental group but withheld from the control group. Upon completion of the program, both groups would be posttested. It would be expected that the random assignment of program facilitators and students will have controlled for any facilitator and student differences in knowledge, intelligence, motivation, interest, and demographics. In this way, any posttest differences in the experimental and control groups could be attributed to the program being evaluated. In most school systems however, the possibility of obtaining the random assignment of pupils is difficult if not impossible. The possibility of obtaining the random

assignment of a program facilitator is somewhat more favorable during the first encounter between the facilitator and the school, and less favorable afterward due to the establishment of a working relationship between facilitators and school personnel. These issues preclude the use of the true experimental designs.

For this thesis, the next best choice was the Quasi-Experimental Separate-Sample Pretest-Posttest Design. In this design neither the program facilitators nor the students are randomly assigned and there is no control group. It was anticipated that ten classes (approximately 200 students) would be receiving the BABES program and participate in the outcome evaluation. By randomly assigning the students to receive either the pretest or the posttest it would have been possible to control for both the main effect of testing and for the interaction of the testing and the program. The design does not control for history. This design was abandoned because concern on the part of the researcher was raised that there would be an interaction effect. Attempts by the children to assign meaning as to why they were selected for either the pretest or the posttest group would be likely to create a reactive effect. There was also no way to control for the effect because there was a high likelihood that the pretest group would share information with the posttest group. It was believed that the interaction of the groups would contaminate the posttest results.

The Pre-Experimental One-Group Pretest-Posttest design was adopted because it was determined that the quasi-experimental design would leave the researcher with the same threats to validity as would be encountered with the Pre-Experimental design, all first grades would be receiving the BABES program during the same time period for fiscal reasons thus eliminating the possibility of using a control group, and because only three of the ten classes agreed to participate in the study thus reducing considerably the

number of students who would be available for the separate sample design. There were additional fiscal considerations during the planning stage that influenced the decision to use the pre-experimental design. Although one-group pretest-posttest designs are used frequently in school settings, are relatively inexpensive, and easy to administer, their main drawback is that it may not be possible to attribute changes in the outcomes to the treatment.

INTERVENTION

Goals & Objectives

The goal of the BABES program is to reduce the substance abuse trend by providing factual information, presenting the information in a non-judgmental way, introducing life skills, and increasing the child's self-awareness (LaMonica, 1990).

The goals and objectives for each lesson are found in Appendix B.

Program Description

Through the use of images, puppets, and storytelling, BABES presents information to the first graders on alcohol and drugs while teaching them the life skills needed to avoid substance abuse. The BABES program is taught by certified presenters who have extensive knowledge about the nature of substance abuse and its impact on a child. The program is organized into seven lessons, one lesson per week: 1) Self Image and Feelings; 2) Decision Making and Peer Pressure; 3) Coping Skills; 4) Alcohol and Other Drug Information; 5) Getting Help; 6) When You Don't Know What To Do (Personal Privacy); 7) Review and Certification. The BABES prevention program presents material that incorporates situations a child might encounter at home, with

friends, or in a family with a history of substance abuse. The information is presented in an interactive, non-judgmental and non-threatening way.

Each lesson is approximately 45 minutes long and occurs in a sequence: 1) introduction to the puppets at the first lesson/subsequently a review of the previous lesson; 2) lesson told in story format using the puppets and scripts; 3) replay of the story or an activity involving the whole class or small work groups that reinforces the message in the lesson; and 4) a group-building closure activity.

In this study, the certified BABES instructor also enlisted students from the Bangor Junior High School S.A.D.D. (Students Against Drinking and Drugs) Chapter to assist with the lessons. The students assisted in telling the stories using the puppets, helped with the activities, and gave the children one-to-one attention. They are called BABES BUDDIES and are selected by their S.A.D.D. Chapter Advisor. The BUDDIES are given approximately twenty minutes before the program begins to review the script, practice manipulating the hand-puppets, and to be briefed about the reinforcing and group-building activities. BUDDIES are excellent role models for the first graders.

METHOD

Participants

The program was presented to first grade pupils at a public school. . They attend a modern school located in a pleasant setting in the mining hills of mid-eastern Pennsylvania. Three of the ten first grade classes in the district participated in the pretest and posttest evaluation. All ten classes received the BABES program during the same time period as the experimental group. Of the 66 eligible to participate in the outcome evaluation, 7 were eliminated due to transfers into or out of the district. A total of 59

first graders participated in the evaluation. They are 5 and 6 years old. There are 33 (56%) girls and 26 (44%) boys. Ethnic profile is 95% Caucasian, 5% Hispanic. There were twenty children in Classroom A, eighteen children in Classroom B, and in Classroom C there were twenty-one children. (Table 1).

TABLE 1. FREQUENCIES: CLASSROOM and GENDER

Classroom	Girls		Boys		Totals	
	N	%	N	%	N	%
A	11	55%	9	45%	20	34%
B	9	50%	9	50%	18	30%
C	12	57%	9	43%	21	36%
Totals	32	54%	27	46%	59	100%

Measurement Selection

In approaching the problem of measuring the effect the program had on the children's attitude, behavior, and knowledge, there were several obstacles: finding a suitable tool to use with first graders to measure constructs such as self-esteem and coping, finding appropriate instruments to test children who cannot as yet read or write, and finding instruments that could be administered within a 45 minute class period.

The valid measurement of constructs such as self-esteem and coping has been a problem for researchers. The test results from the various instruments are often poorly inter-correlated. The problem increases when working with young children because self-esteem, coping and decision-making skills may be developing and fluctuating traits that may vary widely during the developmental years. None of the available measures has

been able to overcome this problem. Inquiries into instruments the Pennsylvania Department of Education (1995) might recommend for these constructs revealed the use of a test called the EQA (Educational Quality Assessment); however, the lowest grade it was appropriate for was fourth grade. It was decided that the measurement of these constructs would be abandoned.

The availability of an instrument to measure knowledge-gain, which had been designed by BABESWORLD, the parent organization of the BABES curriculum, was discovered by me in late Spring of 1995. Attempts to learn more about the instrument and to obtain a copy of the test led me to research that had been done by Drs. Carns and Belcove-Shalin (1993) at the University of Nevada at Las Vegas. Drs. Carns and Belcove-Shalin had refined the original 22 item "pictorial" multiple choice inventory and developed a corresponding yes/no (true/false) section for use with Head Start children who received the BABES program. Based upon the results of their research and their recommendations, it was decided that only the pictorial BABES knowledge test would be employed in this study involving first grade students.

The BABES Test used in this outcome evaluation consists of a twelve item multiple choice pictorial inventory (Appendix C) that relies on visual and auditory recognition. The test items are measures of program content. The test is administered in the pictorial/auditory format because most of the children are as yet unable to read or write responses to questions. The pictorial inventory allows the student to simultaneously match a verbal response with an image. The test is limited to twelve questions in consideration of a first graders attention span and relatively recent introduction to test-taking procedures.

Presentation of the instrument.

The pretest and posttest were conducted two weeks before and after the presentation of the BABES program. After consulting with the teachers of the participating classrooms and the program facilitator, it was decided that the evaluation would be administered by a third person, myself, who is also a program facilitator assigned to other classrooms. This was done to control for one of several reactive arrangements: it was expected that the children would react to being tested by a stranger who was going to teach them something and then test them again to see what they had learned by trying to please their "new" teacher. Other interactions that could occur were: the program facilitator would react to having the impact of her work evaluated, and the children would react to being selected for a study.

The pretest and posttest procedures were identical with one exception; for the pretest, ten additional minutes were allowed for the evaluator to introduce the puppet characters who are featured in the pictorial inventory. Testing begins with the evaluator distributing the test to the children face down with instruction to wait until they are told to turn the packet over. The test packet consists of 12 sheets of 8.5" x 11" papers. Each paper features a pictorial multiple choice question. The children are told that the evaluator will read each question two times, they are to do their own work, and if they need to sharpen a pencil to do it now. Children who cannot see the evaluator's copy of the test are moved to a closer location. An auditory check is conducted to determine if everyone can hear the evaluator. The evaluator begins by holding a copy of the first question sheet in front of her, reading the question to the students, then reciting the three possible answers which correspond to three distinct pictures enlarged on the 8.5" x 11" sheet of paper. While reading the multiple choices, the evaluator points to the matching

image. The children follow along using their own test packet and answer by putting an X on the picture believed to be the correct answer. The evaluation proceeds in this manner for all twelve questions. Answers to the pretest and posttest are then transferred to a code sheet in preparation for the data analysis.

Data Analysis

The data analysis consisted of the comparison of means and evaluations of the differences between frequencies. A paired T test was applied to test the null hypothesis that there was no significant difference in the means as a result of the intervention. The SPSS X (Statistical Package for the Social Science) was used to run the data. The Chi Square statistic was used to test the null hypothesis that there were no significant differences between the observed frequencies and the expected frequencies for each item on the inventory. An Analysis of Variance was used to test the null hypothesis that there was a difference in the means that could be attributed to the classroom assignment. T tests were applied to test the null hypothesis that there was a difference in the means that could be attributed to gender. Additional sub-analyses were conducted.

RESULTS

Employing a paired "t" test to determine whether the differences between pretest and posttest means for the group are statistically significant it was found that *the "t" test data indicate that the BABES program significantly ($t = .000$) increased the level of knowledge of the experimental group. The null hypothesis of "no effect" must be*

rejected. Additional sub-analysis employing the “t” test indicated that in each instance, the program significantly ($t=.000$) increased the level of knowledge in each of the three classrooms, in the boys, and in the girls. In looking at this change it is important remember that without a control group, one cannot unambiguously attribute any significant changes observed to program effect. (Table 2)

TABLE 2: PRE - POST COMPARISON, PROBABILITY OF CHANCE REPLICATION and CHANGE: OVERALL, GENDER, CLASSROOM

	N =	PRE %	POST %	PROB.	CHANGE
OVERALL	59	71.6	88.4	.000	+ 16.8
BOYS	27	72.2	86.7	.000	+ 14.5
GIRLS	32	71.3	89.97	.000	+ 18.67
CLASS A	20	65.0	88.75	.000	+ 23.75
CLASS B	18	77.3	89.8	.000	+ 12.5
CLASS C	21	73.4	86.9	.000	+ 13.5

The “t” test statistic was used to determine whether any differences between pretest and posttest means could be attributed statistically to gender. *There was no statistical significance in either the pretest or posttest. These results reject the null hypothesis that differences in knowledge could be attributed to gender.*

Regarding the effect of classroom assignment, The Tukey-b multiple comparison analysis of variance procedure which compares the variability within and between means was applied to the data. The results revealed that no two groups were significantly different at the .05 level for the pretest as well as for the posttest. *There was no statistical evidence that there was an interaction effect between classroom assignment*

and the intervention, thus rejecting the null hypothesis that differences in knowledge could be attributed to classroom assignment.

The chi-square statistic was used with each of the twelve items in the inventory to test the null hypothesis that there were no significant differences between the pretest and posttest frequencies on each question. Table 3 summarizes the results of this data run. The column headed "Probability" reflects the Chi-square estimation of the likelihood that chance alone could have produced differences as large as those reported between the pretest and the posttest on the seven items on the inventory that were found to be statistically significant. The seven inventory items were: item (1) knowing what self-image is (.023), (4) knowing what to do when you have to make a decision (.004), (5) knowing what coping is (.001), (6) knowing what to do to cope (.001), (8) knowing when drugs (medicine) should be used (.000), (10) knowing what a family should do to get help if someone they love is an alcoholic (.018), and (12) knowing what to do if someone touches the private parts of your body (.004). There was an increase in knowledge in each item as indicated by the degree of change in the scores from the pretest to the posttest. *The results of the chi-square statistics indicate significance at the .05 or less level on seven of the twelve items. The null hypothesis of no significant differences between the observed and expected pretest and posttest frequencies on the individual items on the inventory must be rejected, as it called for the condition to be true for "all" test questions.* The items that did not change at posttest were: (2) knowing the emotional response that is appropriate for a situation, (3) knowing what to do when friends use peer pressure, (7) recognizing beer, (9) knowing that it is all right to ask for help with a school problem, and (11) knowing that an alcoholic has an illness.

TABLE 3: PRE-POST COMPARISON OF TEST ITEMS - PROBABILITY OF CHANCE REPLICATION, AND CHANGE

QUESTION*	PRE %	POST %	PROBABILITY	CHANGE
1	71.2	86.4	.024	+ 15.2
2	83.1	89.8	.259	+ 6.7
3	74.6	94.9	.092	+ 20.3
4	64.4	81.4	.004	+ 17.0
5	67.8	88.1	.001	+ 20.3
6	91.5	98.3	.001	+ 6.8
7	94.9	100	NA	+ 5.1
8	86.4	93.2	.000	+ 6.8
9	83.1	94.9	.438	+ 11.8
10	44.1	78	.018	+ 33.9
11	37.3	67.8	.229	+ 30.5
12	62.7	88.1	.005	+ 25.4

- * 1 - Self-Image
- 2 - Feelings
- 3 - Peer Pressure
- 4 - Decision Making
- 5 - Coping
- 6 - Alternatives
- 7 - Beer
- 8 - Drugs (Medicine)
- 9 - Seeking Help (School Prob.)
- 10 - Seeking Help (Family Prob.)
- 11 - Alcoholism
- 12 - Personal Privacy

In a sub-analysis, gender differences in the responses to the test questions were examined, (Table 4). The Chi-square statistic was applied to the examination of each of the twelve items in the inventory to determine if there were statistically significant changes between the pretest and posttest frequencies for the boys (N=27). The results using the Fisher's Exact Test/ One -Tailed indicate significance at the .05 or less level on three items: (4) knowing what to do when you have to make a decision (.008), (5) knowing what coping is (.041), and item (10) knowing what a family can do to get help if someone they love is an alcoholic (.018). The results of the analysis of the pretest/posttest frequencies for each item for the girls (N=32), using the Pearson, indicate significance at the .05 or less level on four items. The items are: (3) knowing what to do when friends use peer pressure (.019), (5) knowing what coping is (.018), (8) knowing when drugs (medicine) should be used (.000), and item (12) knowing what to do if someone touches the private parts of your body (.012).

TABLE 4: STATISTICALLY SIGNIFICANT TEST ITEMS: GENDER & OVERALL

Question	Boys (Fisher's Exact)	Girls (Pearson)	Overall (Pearson)
1			.024
2			
3		.019	
4	.002		.004
5	.041	.018	.001
6			.001
7			
8		.000	.000
9			
10	.022		0.018
11			
12		.012	.005

DISCUSSION

Interpretation of the Results

Although the design is weak, there was no control group, and the control of variables was limited, we can reasonably assume that classroom assignment and transfer students (who were not included in the study) were not factors influencing the results observed in this outcome evaluation. Regarding gender, it can be said that it does have an effect but it doesn't explain all of the effect. Without a control group, one cannot attribute the results to the program with any certainty. Another limitation to interpretation of the results is the nature of a case study which yields information that stands in isolation. One cannot generalize about the effects beyond this study. With these limitations in mind, the analysis of the results of the pretest and posttest comparisons suggests that the BABES curriculum is effective in educating first grade students about alcohol and drug abuse issues.

There are mixed results regarding the children's' responses to the individual test questions. Although for item seven (7) the changes were not statistically significant due to the ceiling effect, the outcome was striking: at the pretest, 95% of the children were able to recognize beer. This is in keeping with the observations of Miller, Smith & Goldman (1989) that children as young as three recognize beer. It also supports the epidemiological evidence of the extent to which alcohol is an icon of our society; and, the appropriateness of prevention programs for the elementary school age child. The statistically significant change for item eight, (8) which determined if the children know when drugs (medicine) should be used, was unexpected and not in keeping with the

finding by Moberg and Haun (1991) that children as young as three recognize the consequences of health-related behavior. The results suggest that the program may have been informative or corrected some confusion children may have had about when to use drugs. It is also possible that the term "drug" at pretest was not interpreted as "medicine" by the children. The reliability of this item warrants study.

There was a significant change on item one (1) which asked the children if they know what self-image is. The results suggest the program had an impact on their understanding of the lesson which modeled how our feelings can affect our self-image.

Statistically significant changes occurred on items five (5) and six (6) associated with the lesson on coping, suggesting that this is a lesson that presented information that was either new or important to them. Coping may be more of a "home" issue than a school issue. The test revealed that many of the children did know that it is important to ask for help with a school problem. This suggests a school or classroom climate where asking for help is an accepted practice.

The score on item twelve (12) which addresses knowing what to do if someone touches the private parts of your body, suggests that this lesson is important and timely. Sub-analysis of this item found that there was a statistically significant change at posttest on this item for the girls but not for the boys, suggesting this was more of an issue with the girls. Only one other item on the inventory revealed a gender based difference in response. That second item was four (4) for which there was a statistically significant change at posttest for the boys but not for the girls. Item four tested for knowledge about what to do when you have to make a decision, suggesting this was more of an issue with the boys, or with their impulsiveness as evidenced in research by Jessor & Jessor, 1980; Dusenbury & Botvin, 1992).

The children scored the lowest on items ten (10) and eleven (11) on both the pretest and the posttest. The former deals with knowing what a family can do to get help if someone they love is an alcoholic while the latter deals with knowing that an alcoholic has an illness. Only item ten which deals with "seeking help", saw a statistically significant change. The relatively low scores for these items compared to the rest of the items suggests other forces are involved. Several explanations can be offered. One could feel encouraged that the lessons may not have had as much relevance to as many children as anticipated based on epidemiological evidence. However, it is equally possible that concern about preserving "family secrets" about alcohol or drug use influenced the responses. Should this be the case, one could not overlook that the results were outstanding when one considers how powerful the motivation is to keep family alcoholism a "family secret". It is also possible that the program facilitator did not put as much emphasis on this lesson as on the others. The "recency" effect is an occurrence which suggests that the children will remember the last lessons best and therefore score better on those test items. The results indicate there was no recency effect. It is unclear how the results on these items should be interpreted.

There are several possible explanations for the effects in addition to those mentioned above. Other variables such as having already experienced the program prior to this study; socio-economic status of the family; family structure such as two-parent, single parent, blended family, etc.; a history of alcohol or drug abuse in the family; and the frequency of lesson reinforcement by the teacher may have caused an increased or decreased program effect. Even if it had been possible to control for the effect of these variables, one would still not be able to draw conclusions with any certainty because there was no control group.

A social learning explanation for the changes would suggest that the children learned the information vicariously. The cognitive development explanation for the changes would suggest that, because the majority of the children in the study are at the concrete stage of development, they are able to understand and remember the specific problems and solutions given in the program. However, they may not yet be able to apply the information to future events or to events they do not recognize such as those portrayed in the pictorial inventory. It is also feasible, but unlikely, that the program had effects which did not develop within the time-frame of the seven lessons. A stronger design such as the quasi-experimental Time Series would address this possibility.

Threats to validity.

The pre-experimental pretest/posttest design is subject to many threats to validity. The greatest threat in this study is the recall factor of *testing* then *retesting* using the same instrument. The pretest itself has prepared the child for the posttest. The changes may be the result of the children's ability to remember what the right answers are. There is also the issue of responding to the questions by marking the socially approved answers or, in the case of first graders, the silliest answers. Those who chose to select the "silly" answers at pretest might have learned from classmates by posttest which responses would meet with social approval. The multiple choice pictorial format presented an unexpected threat: the children had trouble remembering the names of the puppet/pictorial characters during the pretest.

It was anticipated that the *recency* effect would be a threat to validity; however, this was not the case. There was no evidence that the children scored better on the items

from the later lessons. The last lesson is devoted to a review of the first six lessons which was likely to have been a factor in controlling for the recency effect.

The next threat to consider is *history*. Although there was a short pretest/posttest interval, it is possible that the children were exposed to additional alcohol and drug abuse prevention material either in the classroom, at home, through the media, or in the community. The lessons spanned the Halloween holiday - during which time they may have been warned not to eat the candy they received until their parents checked to make sure it was safe to eat. They may also have seen S.A.D.D.. Chapter floats in the local or televised Halloween parades. A school-wide project about "healthy foods" may also have influenced the outcome.

Maturation could have an effect on the outcome measures. Although most of the children, according to Piaget's Cognitive Development Theory, are in the preoperational stage of thinking, there is no way of telling who among them is in or beginning the concrete operational period of development. The children were more "classroom" mature at the posttest (e.g. better able to pay attention, to tolerate a full day of class versus the half day of kindergarten) and beginning to work more cooperatively. It is possible that at the pretest, some of the children had trouble paying attention because they were as yet not comfortable with school in the morning and a full day schedule.

The uncontrolled rival hypothesis of "*instrumentation*" may account for some of the results. The instrument was read to each class. It is possible that the person did not deliver the instrument the same way each time for reasons as varied as fatigue, familiarity, distractions, and interruptions.

The *Interactive* effect of being part of a "program evaluation" would be likely to sensitize some of the children to the subject material. This would make it difficult to say

that the results were representative of the effect of the program on the student. Efforts to control for aspects of this effect were discussed earlier.

Interaction of *selection* and the program does not appear to be a threat to validity because all the students in the district received the BABES program; however, several children arrived late for the program because they had been attending special sessions with either a tutor, a counselor, nurse, etc.. Missing part of the lesson and drawing the attention of the class upon entering the room may have had an effect on how those children responded to the program. Some may have settled in to be attentive while others may have been too distracted by their "entrance" to engage in the lesson or activities.

These threats might be dealt with in the future by using a true experiment design which would incorporate random assignment to the experimental or the control group; or the use of quasi-experimental designs that incorporate a control group or the Separate-Sample Pretest-Posttest Design.

CONCLUSION

Summarizing these results, in general, it appears the BABES program has a meaningful effect on the knowledge level of the first grade students in this study. An important aspect of this finding is that although the methodology was weak, compared with other evaluations of elementary school skill-based prevention programs (Green & Kelley, 1989; Hansen, 1992; Hansen, 1993; NIAAA, 1993; Abbey et al, 1990; Carns & Belcove-Shalin, 1993) it is possible to say that the significant changes in *knowledge* that were observed can more confidently be attributed to the effect of the BABES program.

The strength of the outcome results in this study also suggests a measure of support for the cognitive developmental approach used in the program curriculum.

Among the issues of concern are the need for: (1) more research about the effectiveness of the BABES program, (2) stronger research designs that include control groups, (3) longitudinal studies, and (4) further refinement of the BABES knowledge test. Future studies would do well to add control groups, as this would control for many of the factors that jeopardize internal validity. There is also a need for longitudinal studies of the impact of the BABES program. This would be particularly feasible in those schools where the children receive the program two or more times during their elementary school years. These studies would provide measures of the effectiveness of this prevention program as well as information about aspects of the program that might need adjustment. Further evaluation of the BABES knowledge test for its cultural appropriateness and for its developmental appropriateness for children at each age from 4 to 8 is needed.

Also, while the social learning theory framework of this program suggests that children learn through imitation, we are as yet unable to adequately measure attitude and behavior at this early age in studies which would lend support or refute this theoretical approach to prevention. There is a need for tools that will adequately measure psychosocial constructs in young children. This concern is shared by researchers Abbey et al (1990), Green and Kelley (1989) and by Hansen (1993). The work conducted by Abbey et al (1990) reports the use of an instrument to measure psychosocial skills that are the focus of the BABES program. The results indicated that although the children did well on the knowledge test, they were unable to apply the knowledge to situations or characters other than those presented in the program. The use of this measure is worth

pursuing; however, the development of interactive or role-play measures that would determine the child's psychosocial skills in reference to himself or herself personally, rather than to a puppet or other fictional character, would provide a better measure of the child's ability to apply the knowledge in real life.

In addition, researchers have suggested certain types of programs such as information focused, affective education, or the social influence type (See Appendix A) are more effective than others and may even be more effective with a particular category of individuals than with others. These suggestions need further research with more attention paid to the programs in the lower elementary grades.

In conclusion, the BABES prevention program appears to increase first grade students' knowledge about issues related to alcohol and other drugs. It is possible that they will retain the information which in turn can have a positive impact on their future expectations, decisions, and experiences regarding alcohol and other drugs.

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APPENDIX A

CHART: ELEMENTARY SCHOOL PREVENTION PROGRAMS

PROGRAM CHARACTERISTICS	BABES	DARE	HLAY HLAY2 HLAY2000
THEORY or BASIS	SOCIAL LEARNING	SOCIAL LEARNING	HUMANISTIC PSYCHOLOGY
GRADE	K - 3	5 & 6	K - 12
AGENT	PROGRAM FACILITATOR	UNIFORMED POLICE OFFICER	TEACHERS
LENGTH	7 1-HR LESSONS	17 1-HR LESSONS	UNITS OR OVER SCH. YR.
TYPE OF PROGRAM: INFORMATION FOCUSED	YES (Somewhat)	YES	YES (Somewhat)
TYPE OF PROGRAM: AFFECTIVE EDUCATION	YES	YES	YES
TYPE OF PROGRAM: SOCIAL INFLUENCE	YES	YES	NO

APPENDIX B

GOALS & OBJECTIVES (1)

BABES - LOWER ELEMENTARY

LESSON 1: SELF-IMAGE & FEELINGS

GOALS

1. Be aware of a full range of feelings in self and others.
2. Accept the reality of feelings.
3. Be aware of self-image in self and others.
4. Understand importance of a positive self-image.
5. Accept differences between self and others.

OBJECTIVES

1. Name a variety of current and recent feelings.
2. Describe behavioral indicators of several feelings.
3. Differentiate between positive and negative self-image.

APPENDIX B

GOALS & OBJECTIVES (2)

BABES - LOWER ELEMENTARY

LESSON 2: PEER PRESSURE & DECISION MAKING

GOALS

1. Be aware of making decisions.
2. Know, and be able to apply steps for effective decision making.
3. Anticipate decision making opportunities.
4. Be aware of influences on decision making.
5. Distinguish between effective and ineffective decision-making.
6. Recognize errors and apply corrective action for future decision making.

OBJECTIVES

1. Identify influence attempts by peers, advertisers and others.
2. Describe steps in decision making.
3. List past and future decision making opportunities..

APPENDIX B

GOALS & OBJECTIVES (3)

BABES - LOWER ELEMENTARY

LESSON 3: COPING SKILLS

GOALS

1. Be aware of coping skills in self and others.
2. Recognize opportunities to use coping skills.
3. Develop a full repertoire of coping skills, including conflict and stress management skills.
4. Accept that the ability to control outcomes is limited.
5. Understand the use of substances as an ineffective coping strategy.

OBJECTIVES

1. Describe situations which are disturbing because of own behavior or others' behavior.
2. Describe coping skills which may be used.
3. Identify recent situations in which conflicts have occurred.

APPENDIX B

GOALS & OBJECTIVES (4)

BABES - LOWER ELEMENTARY

LESSON 4: ALCOHOL & DRUG INFORMATION

GOALS

1. Be aware of substance use by self and others.
2. Distinguish between appropriate use and abuse of alcohol or other drugs by adults.
3. Know the physical, psychological and behavioral effects of major drug groups.
4. Understand chemical dependence as a disease.
5. Know risk factors for chemical dependence and how to reduce risk.
6. Recognize warning signs of chemical dependence.

OBJECTIVES

1. List problem drugs.
2. Describe the effects of common drugs.
3. Name drugs which may be available to students.

APPENDIX B

GOALS & OBJECTIVES (5)

BABES - LOWER ELEMENTARY

LESSON 5: GETTING HELP

GOALS

1. Be aware of helping and receiving help.
2. Recognize times when help is needed.
3. Know specialized helping resources for self and others.
4. Know how to gain access to helping resources.
5. Understand the feelings which interfere with seeking and accepting help.

OBJECTIVES

1. Identify recent experiences with giving and receiving help.
2. Describe situations in which help might be needed.
3. Identify resources for obtaining help of various kinds.

APPENDIX B

GOALS & OBJECTIVES (6)

BABES - LOWER ELEMENTARY

LESSON 6: WHEN YOU DON'T KNOW WHAT TO DO

GOALS

1. Know and recognize individual and family effects of chemical dependency.
2. Understand that other family members are not responsible for one person's substance abuse.
3. Understand the difference between helping and enabling.
4. Distinguish between appropriate and inappropriate touch.
5. Make effective decisions about sex and relationships.

OBJECTIVES

1. List indicators of chemical dependence.
2. Define responsibility.
3. Describe appropriate touching.

APPENDIX B

GOALS & OBJECTIVES (7)

BABES - LOWER ELEMENTARY

LESSON 7: REVIEW & CERTIFICATION

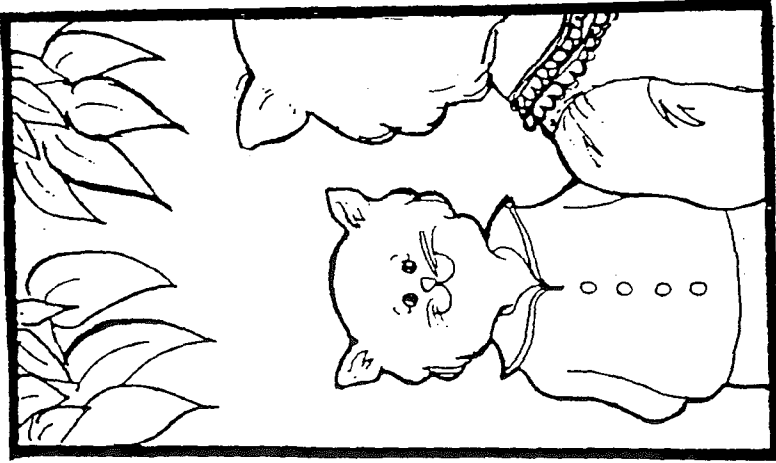
GOALS

1. Correct interpretation of materials.
2. Incentive to share the information and remember the material learned.
3. Address any unresolved issues.

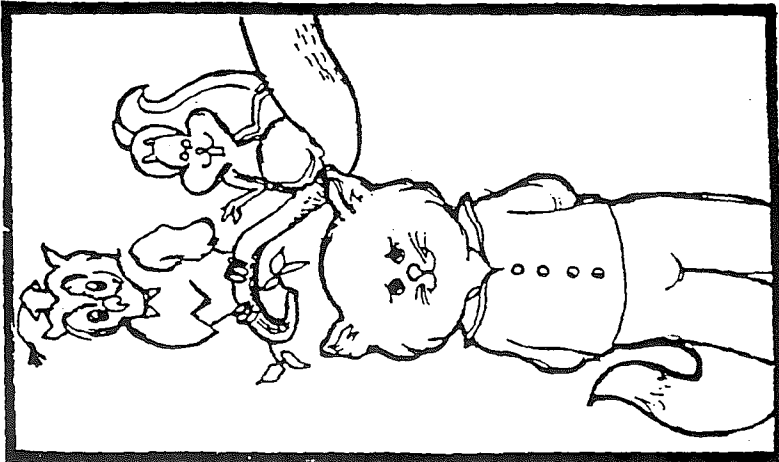
OBJECTIVES

1. Provide accurate feedback on the previous stories and their lessons.
2. Be able to relay these messages to other and put them into practice in everyday life.

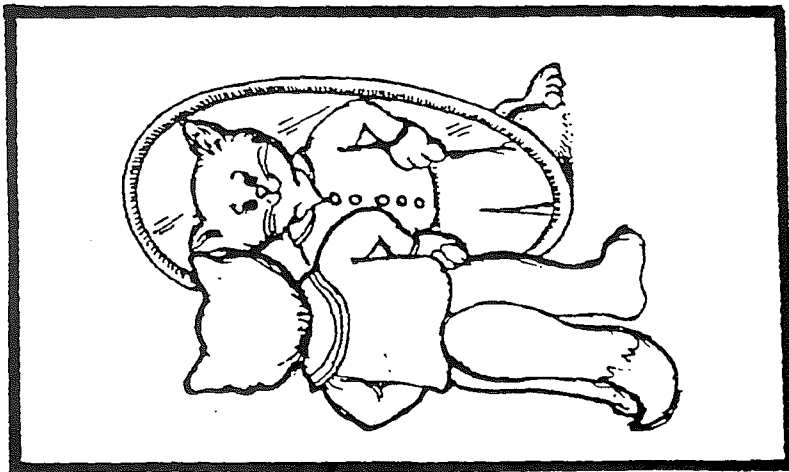
APPENDIX C, BABES TEST



C. HOW YOUR MOTHER TELLS YOU TO ACT



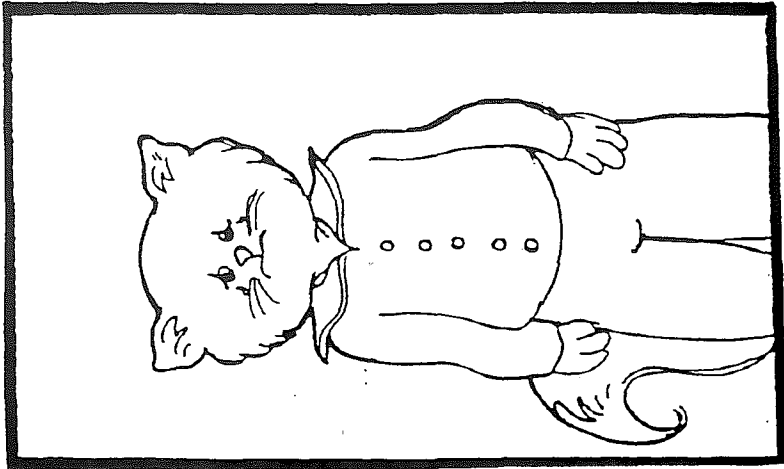
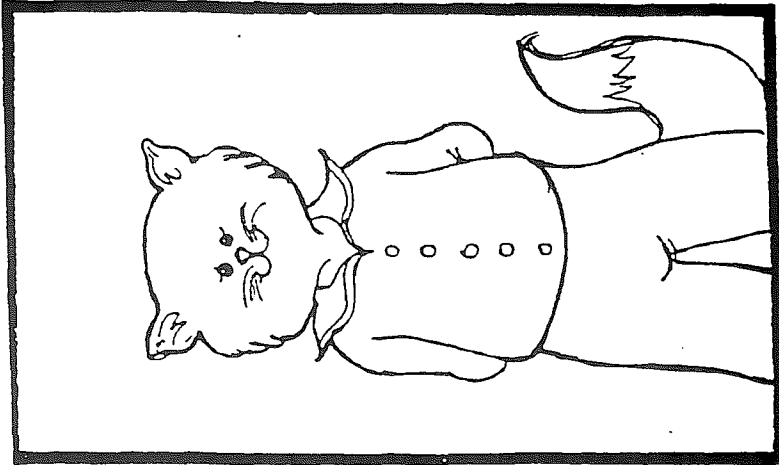
B. HOW YOUR FRIEND SEES YOU



1. SELF-IMAGE IS:

A. HOW YOU SEE YOURSELF

APPENDIX C, BABES TEST

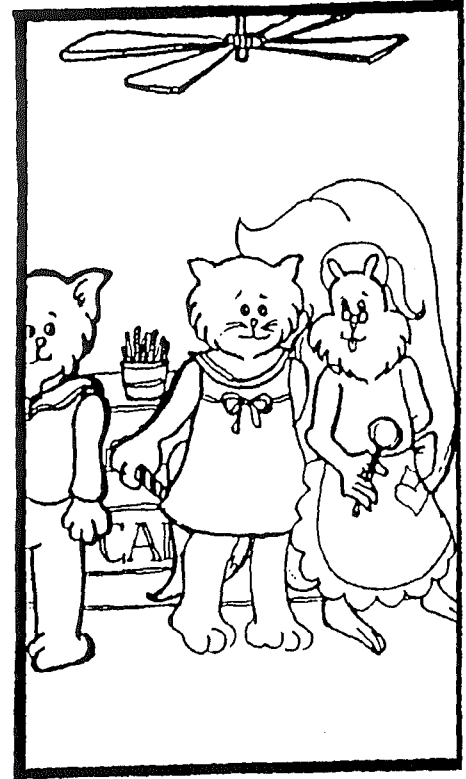
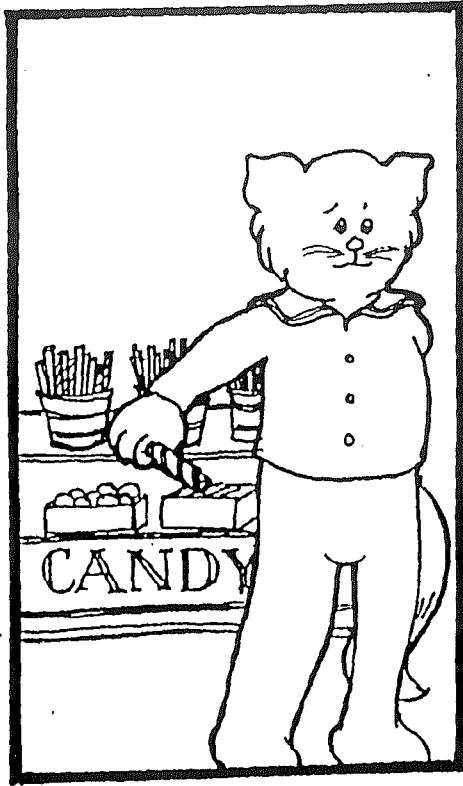
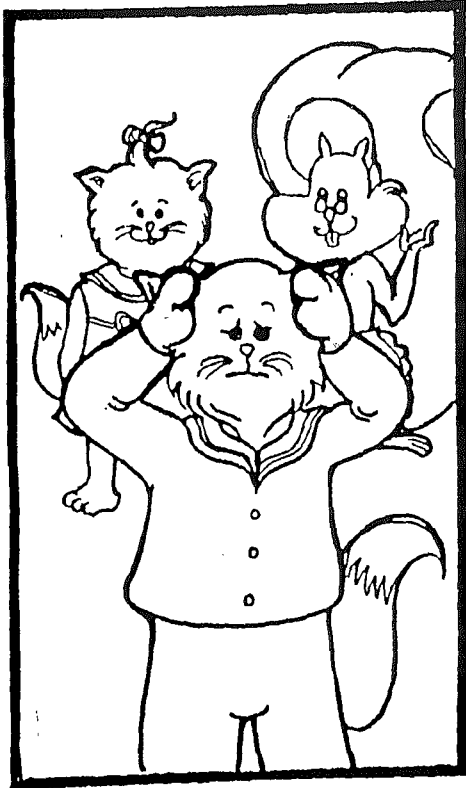


2. BUTTONS WOULD LIKE TO GO TO THE ZOO. NO ONE HAS TIME TO TAKE HIM. HOW DOES BUTTONS FEEL?

A. SAD

B. HAPPY

C. SICK

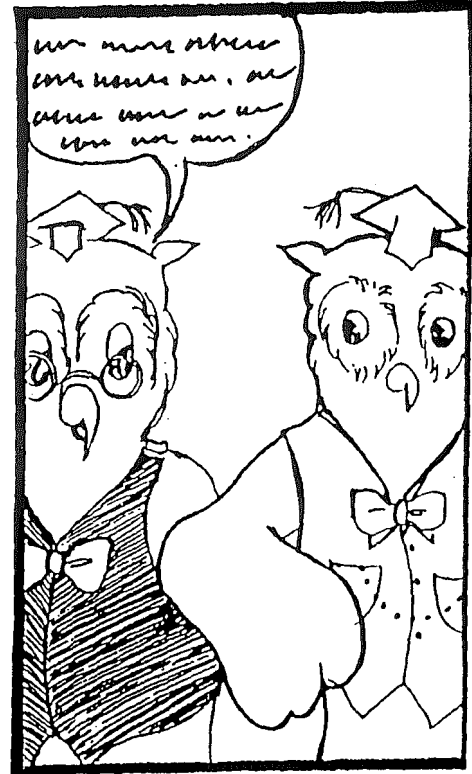
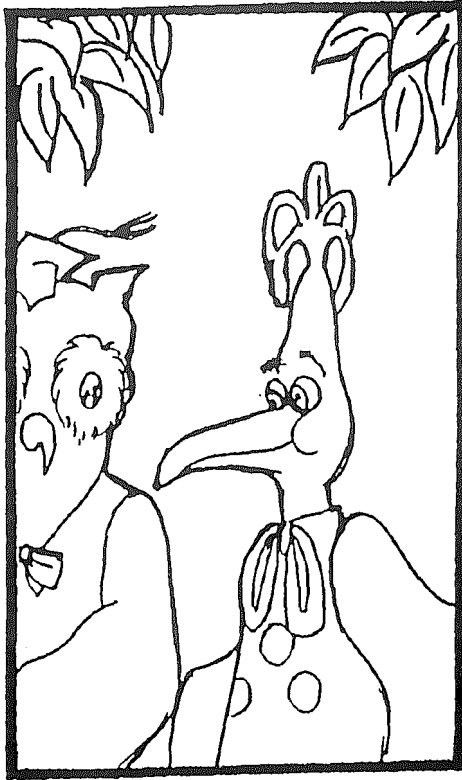
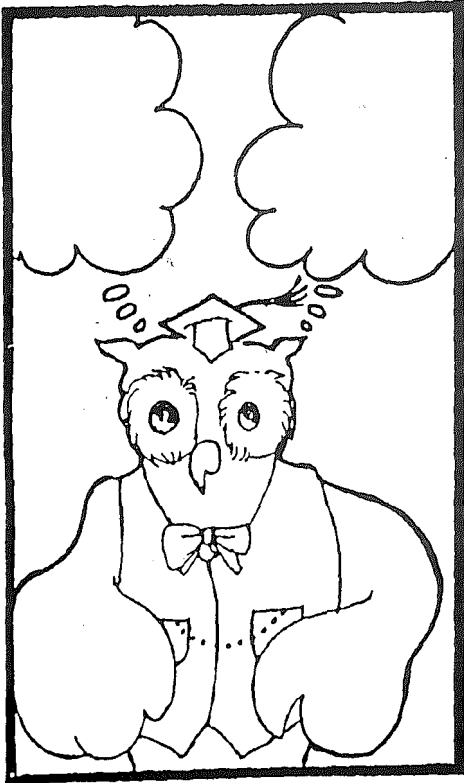


3. IF YOUR FRIENDS TELL YOU TO STEAL CANDY, YOU SHOULD:

A. NOT LISTEN TO THEM

B. STEAL IT

C. WATCH THEM TAKE IT

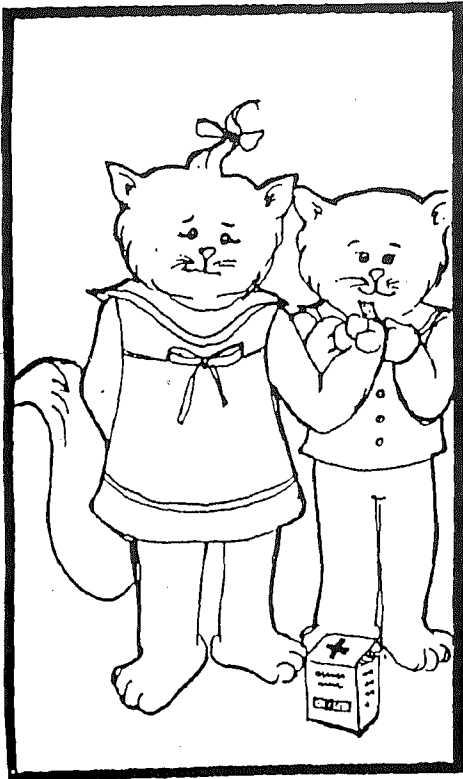


4. WHEN YOU HAVE TO MAKE A DECISION, YOU SHOULD:

A. THINK ABOUT YOUR CHOICES

B. DO WHAT YOUR FRIEND DOES

C. WAIT FOR SOMEONE TO TELL YOU WHAT TO DO



5. COPING IS:

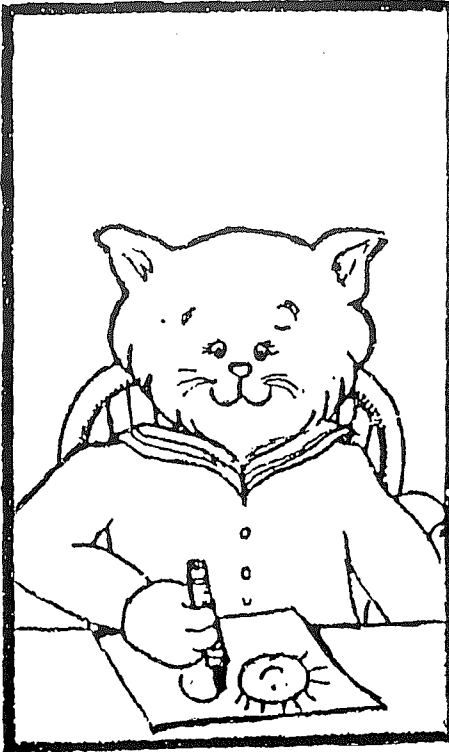
A. TAKING CARE OF AN UNHAPPY SITUATION



B. MAKING BELIEVE IT DIDN'T HAPPEN



C. RUNNING AWAY



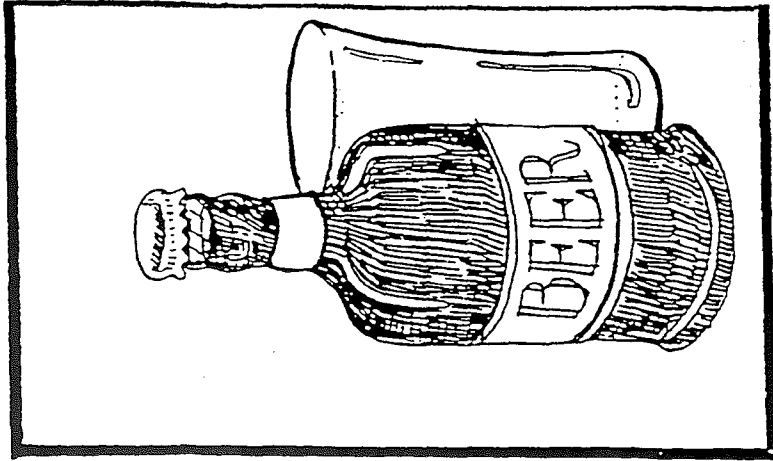
6. BUTTONS WANTS TO GO OUTSIDE AND PLAY BUT IT IS RAINING. WHAT CAN BUTTONS DO?

A. CRY

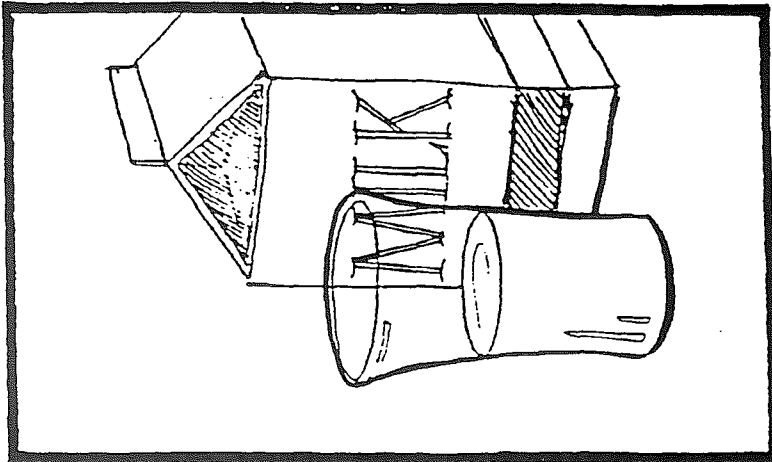
B. FIND SOMETHING ELSE TO DO
WHICH IS FUN

C. MAKE IT STOP RAINING

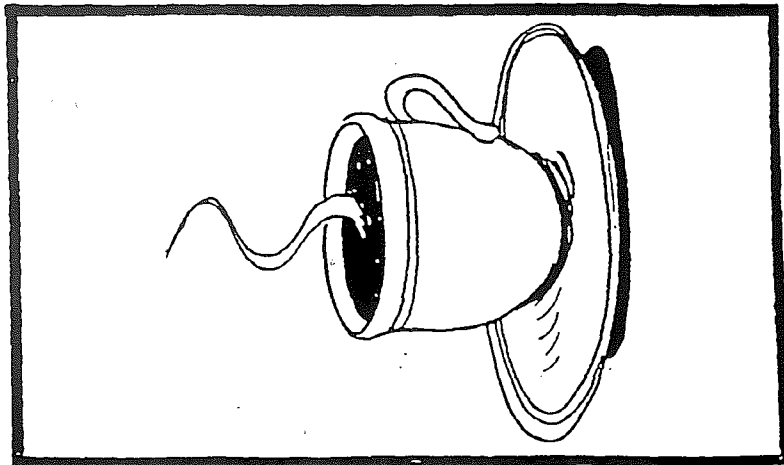
APPENDIX C, BABES TEST



C. BEER



B. MILK



A. COFFEE

7. WHICH OF THE FOLLOWING HAS ALCOHOL IN IT?



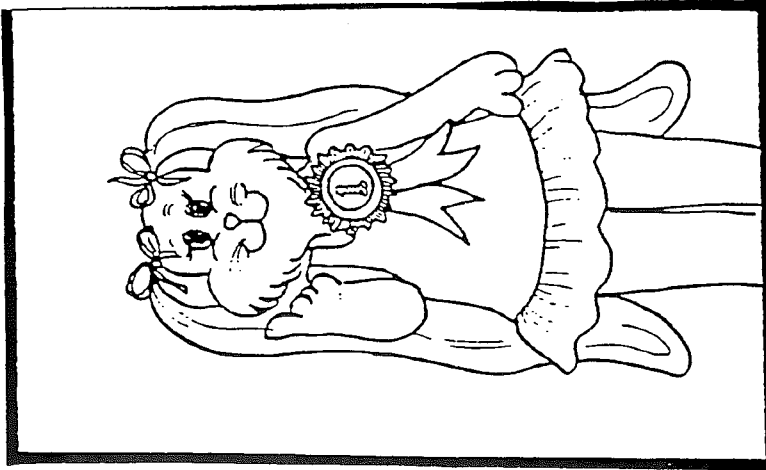
8. DRUGS SHOULD BE USED WHEN:

A. YOUR FRIEND GIVES IT TO YOU

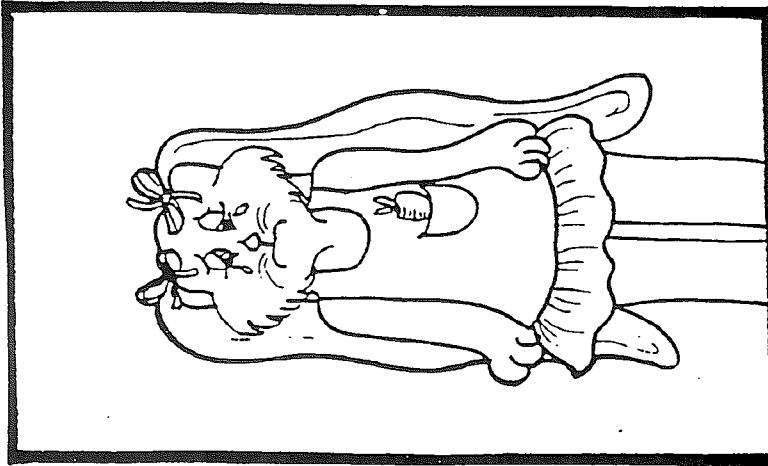
B. DOCTOR TELLS YOU TO

C. YOU FIND IT IN THE BATHROOM

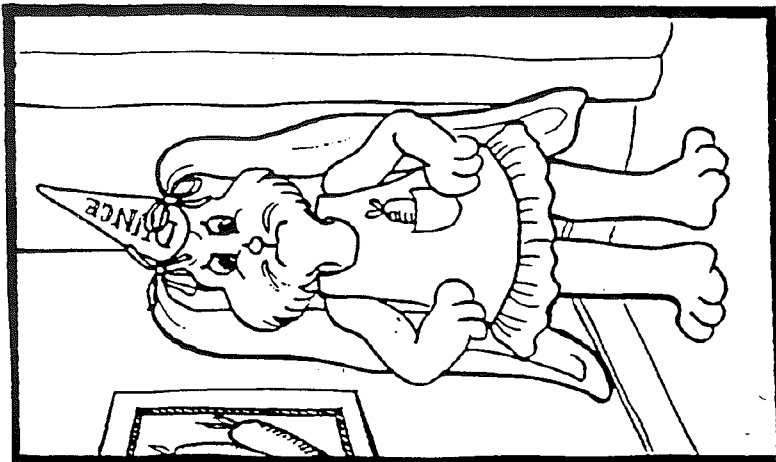
APPENDIX C, BABES TEST



C. BRAVE and SMART

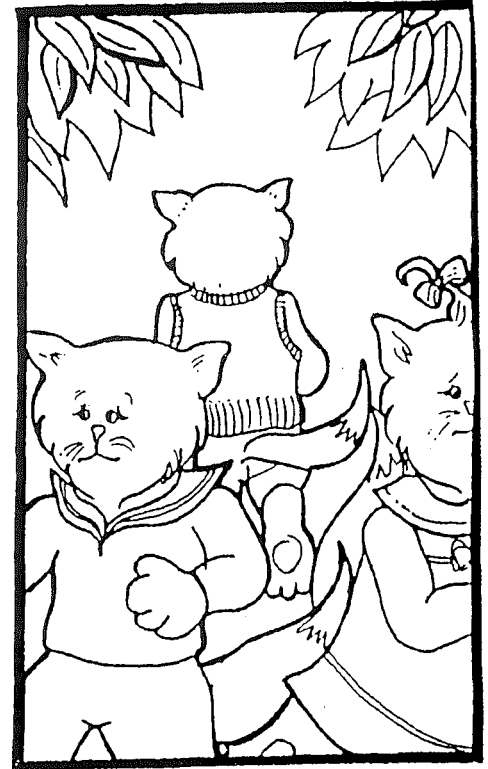


B. SAD



A. BAD

9. ASKING FOR HELP WHEN YOU NEED IT IS:

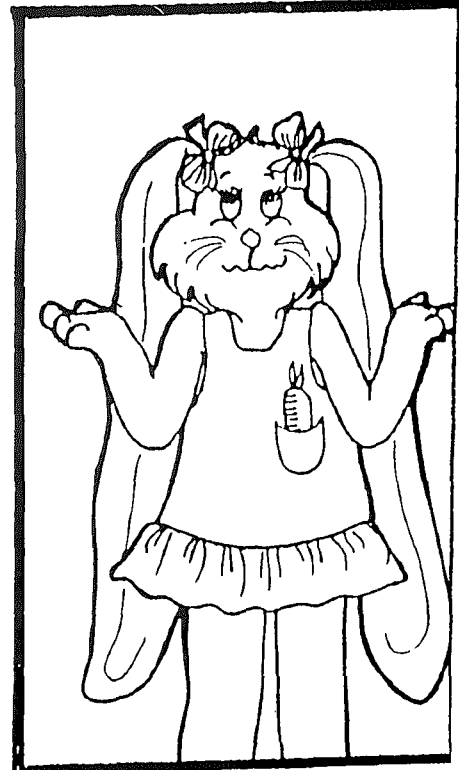
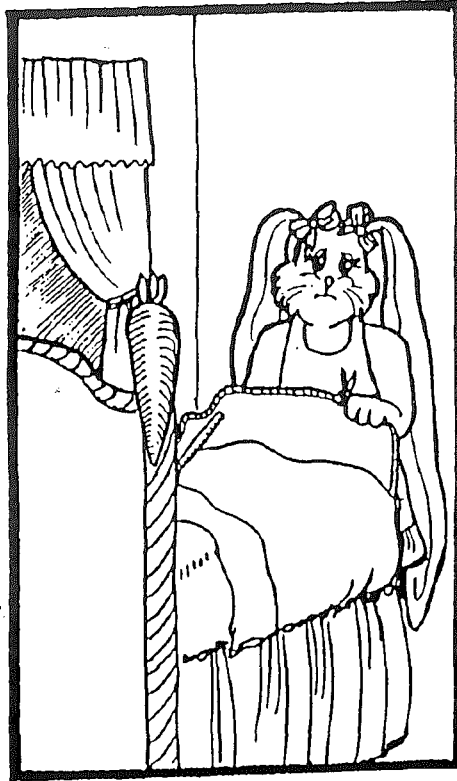


10. THE FAMILY OF THE ALCOHOLIC SHOULD:

A. KEEP IT A SECRET

B. GET HELP

C. RUN AWAY FROM IT

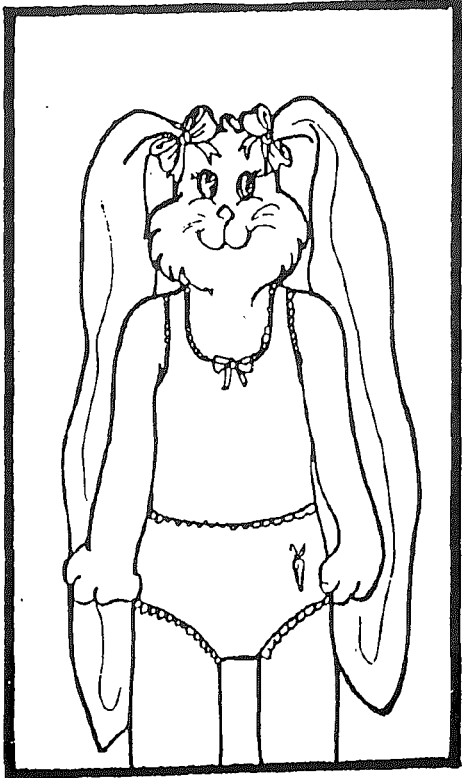
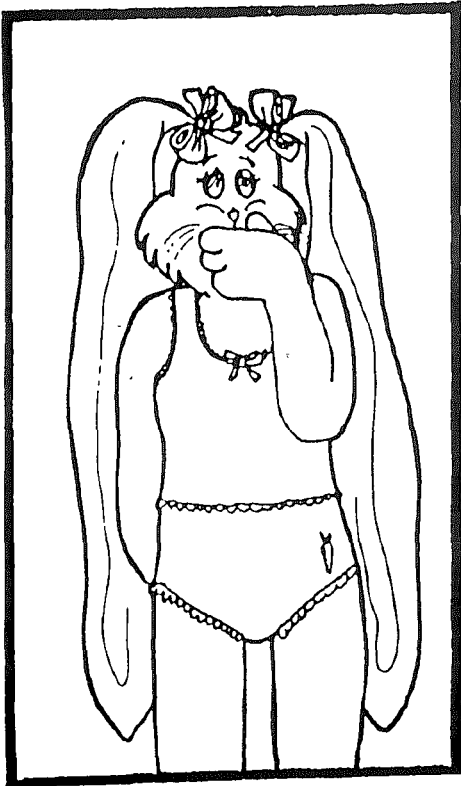


11. WHEN SOMEONE YOU LOVE DRINKS TOO MUCH IT IS BECAUSE:

A. YOU HAVE BEEN BAD

B. THEY ARE SICK

C. YOU DON'T KNOW WHAT TO DO



12. WHEN SOMEONE TOUCHES YOUR PRIVATE BODY YOU SHOULD:

A. KEEP IT A SECRET

B. BE HAPPY

C. TELL SOMEONE YOU LOVE AND TRUST

BIOGRAPHY

Alice M. Mesaros, was born in Allentown, Pennsylvania, on October 24, 1942. She is the wife of Charles R. Mesaros and the mother of two daughters: Merry Stetz, wife of Glenn Stetz; and Jody Mesaros Morrissey, wife of Christopher Morrissey. She is also the grandmother of Sarah Stetz.

After graduating from Fountain Hill High School, in June of 1960, she attended Bethlehem Business School, graduating in 1962. Family responsibilities and a home based business prevailed until her 1979 enrollment in Lehigh County Community College. In 1982 she received an Associate in Arts degree with honors in Pre-Education from Lehigh County Community College. In 1984 she received a B.A. in Psychology, Summa Cum Laude, from Moravian College, Bethlehem, Pa.. She was accepted as a graduate student at Lehigh University in 1984 and pursued an M.A. in Social Relations until 1986, during which time she was a research assistant for Dr. Judith Lasker, and a teaching assistant for Dr. Robert Rosenwein.

In 1986 Mrs. Mesaros left the graduate program to accept the position as the Education and Volunteer Coordinator for the Bethlehem Council on Alcoholism now known as the Alcohol and Drug Dependence Center - Lehigh Valley. She remained with the agency for ten years. During that period, she developed several prevention programs including educational theatre training packages for teens and adults, support programs for children and teens of alcoholics, a program for underage beverage law offenders, and a community wide teen focused High School Advisory Board prevention program. The High School Advisory Board program achieved national recognition when it was selected by the National Council on Alcohol and Drug Dependence to receive the 1992 Meritorious Award for prevention and education.

Mrs. Mesaros' certifications include: Prevention Specialist and Allied Addiction Practitioner in the state of Pennsylvania, BABES Presenter, and Here's Looking At You Trainer. She has been a keynote speaker, has presented workshops at local, state and national conferences, has co-authored with John W. Miller the article "The High School Advisory Board: Revival Meetings for Tired Programs" which appeared in the July 1993 issue of Adolescence Magazine, and has conducted in-service training for the Pennsylvania Department of Education.

In 1995 Mrs. Mesaros retired from full-time employment. She continues to work in the alcohol and drug abuse prevention field as a consultant. In 1996 she returned to Lehigh University to complete the graduate program in Social Relations through the Department of Sociology and Anthropology. She will receive an M.A. in June of 1996.

**END OF
TITLE**