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ABSTRACT

This paper explores some of the attributed of quality day care programs for infants, age 0 to 30 months. High-quality interactions with adults result in positive developmental outcomes for infants. Adults involved in day care should focus on providing an environment of stimulating experiences, which help infants to develop satisfactorily. Other critical factors in adnlt behavior are values and attitudes, particulary interpretations of good and bad behavior, methods of discipline, use of materials, and the degree to which daily housekeeping chores interfere with constructive adult-infant interaction. Tips for teaching infants are provided along with an outline of appropriate developmental tasks for infancy. Important aspects of physical layouts for centers concern safety precantions and the division of the facility into interest areas. Daily schedules are discussed; strong organization and planning are stressed. Continuity of care is vital and may be facilitated by having few caregivers for each child, encouraging caregiver-parent communication, and maintaining a low level of staff turnover. (DP)

THE ECOLOGY OF INFANT DAY CARE

Richard Elardo, Ph.D.[1]

Introduction

I will attempt to discuss today some of the practical aspects of group infant day care, and my overriding concern will be to try and identify those factors which are characteristic of quality day care programs -- programs which follow what might be called the child development approach. For purposes of this paper, the term infant will be used to refer to children from birth up to approximately 30 months of age. I should mention that I will not have time to discuss in every detail many areas that areimportant to quality child care, such as how to provide for the health and nutritional needs of young children; nor do I feel particularly qualified to give advice on techniques and routines such as how to prepare a bath, change a diaper or prep. e baby formulas. Instead, as you will see, my talk will center primarily on how to help insure that a day care program provides a stimulating intellectual environment for the child, as well as a positive social and emotional experience. For, as we are all aware I am sure, many critics (such as Kagan and Whitten, 1970) have observed that day care can be dangerous. They have warned that the family must be recognized as responsible for the child, and that it is dangerous to give that responsibility to any person or agency. And yet, as we shall see, group day care for infants and toddlers can provide positive experiences, indeed developmental

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experiences for children which can produce dividends for them and for our society as well. In many cases day care can provide experiences that children are deprived of at home. Therefore, I think it will become obvious that day care experiences for young children can range from optimal to deleterious -- as is also the case with experiences within the family setting.

Components of Day Care Ecological Systems

Ecology and environmentalism are currently very popular terms, and they will guide this examination of the attributes of quality day care. For I believe that we will all agree with the statement that the child's environment affects him -- and with that as the major focus of this paper, I would like to proceed to analyze the day care environment as it affects the child. In doing this I have sub-divided the day care environment into four of its major components:

1) The behavior of adults;
2) The physical layout of the center;
3) The daily schedule;
4) The continuity of the care provided.

What I shall try to accomplish in this paper is to outline how the above four characteristics of the environment in a day care setting may affect the child's development in different ways.

The Behavior of Adults

Goals, values, and assumptions concerning children. In our diverse society with its multiple sets of goals and values, there seems to be more of a uniformity of goals and values with respect to what adults desire for infants and toddlers: that is, all groups -- black and white and rich and poor, seem to desire very similar things in terms of the development of very young children (see Elardo and Caldwell, 1973). We are all able to agree more or less on a list of developmental objectives

for infants and toddlers. At the Center for Early Development and Education, for example, we have formulated a list of 180 developmental objectives toward which our program is directed -- objectives such as:

(6) The infant should develop favorites among the people he knows;
(17) He should enjoy life-smile, bounce and laugh, etc;
(20) Crying should be limited to situations which have clearly discernable causes;
(45) He should eat most of his meal with a spoon:
(146) He should be able to chain large beads, getting ten or more across the tip in a five-minute period.

While adults may agree on common goals and objectives for children of this age period, problems often occur in another area -- that is, in the adults' conception of how children achieve these goals and objectives. This involves our basic assumptions about why a child develops. I believe it is important for all day care workers to carefully examine their assumptions about child development. For as Hunt (1961) has observed, during the first part of this century there was a strong general belief that a child's development was largely predetermined. That is, people believed that the devleopmental stages which children go through in learning to walk, and talk, and eat, etc. unfolded almost as if they were independent of the environmental circumstances surrounding the child.

Similarly, ideas before about 1950 regarding intelligence were that intelligence was fixed by the genes at birth and did not change significantly throughout the lifespan. Currently, however, scientists realize that development of various characteristics, including the development of intelligence, is not fixed at birth but rather is influenced to a significant degree by the kind of environment provided for the child. For example, Professor Wayne Dennis (1960) reported that babies in an orphanage in Teheran became so apathetic and retarded that fewer than half of them learn to sit up alone by the age of two years, while the normal

age that babies learn to sit up without support is approximately eight months. At the age of four, 85% of these children still failed to walk alone. This lag in development among the orphanage children was attributed to the fact that no one provided stimulating experiences for them. Similarly studies by Harvard's Burton White (see White, 1971) have demonstrated that infant's reaching behavior can be accelerated through a program of stimulation. The point I am trying to clarify is that it is important for day care workers to understand the fact that they should not merely expect the infant to grow and develop on his own, but rather they should understand that infants need a carefully planned series of stimulating encounters with the environment, encounters which must often be under the guidance and direction of an attentive adult. Finally, our incorrect conceptions of children may also affect them. I am thinking of a statement which I have often heard: that is, that a particular infant is "bad." As far as I can understand from what science tells us, human infants are born neither bad nor good; rather they are born "neutral" and the environment teaches them bad and good behaviors over a long period of time.

Quality of Interactions. The maintenance of high-quality interactions between the adults and children in the day care center is probably the most important factor in providing quality child care. A center might provide its children with proper safety, nutrition, sanitation, space, and with a low adult-child ratio, and still be quite unsatisfactory. As Kiester (1969) put it, more important than the number of substitute mothers per number of children is the attitude and general philosophy of the adult.

> "If she does not believe that cuddling, talking to, loving, spending special time with each infant by a specially assigned child care worker is important, then no matter how many people she has, they will not be giving the babies the kind of attention they need." p.33

What then are desirable attributes for day care center employees? Axelrod and Trager (1972) reported these qualities:

> "Likes children, is congenial, dependable, and has a good feeling about himself or herself, has a good sense of humor, is patient, energetic and flexible, and is in good health. He or she should also be sympathetic with the goals of the center and display ability and tact in talking with parents:" p. 32.

Research evidence is beginning to accumulate which is making it clear that there are some adult behaviors which are consistently related to more positive outcomes for children. Kilmer (1971) has found that the general atmosphere or tone of interaction with the children, control techniques, and the quality of presentation of information are relevant. She noted that adults who are warm, friendly, somewhat child centered and who present clear and well-organized instructions are most frequently associated with better outcomes for children. She further stated that when the adults were hostile, authoritarian, rigid and disorganized, the children tended to perform less well in school, have lower self-concepts, and have less mature social interactions. I think that perhaps one of the most harmful philosophies, especially harmful for disadvantaged children, maintains that the role of the adults in an educational or day care setting is to interfere minimally in the child's activities, so that the adult's role becomes that of a passive observer; with a teaching style for the larger part of the day which involves being passive, watchful, and retiring , while allowing the child to interact with various materials or toys. The feeling behind this common philosophy is that if an adult simply guards the child against emotional damage, some kind of natural growth force will take over and assure the child's maximal

development. As we can see, this type of adult caretaking behavior appears to be characteristic of what has been called "custodial care," and thus those of us who are interested in providing developmental environments for young children will want to avoid this type of teaching style. Furthermore, it is not the mere quantity of contact which will optimize a child's development, but, as stated before, it is the quality of interaction that is important, particularly with regard to factors such as the warmth of the caretaker, her sensitivity to the child, her language style, as well as her teaching strategy.

Of course, as Province (1967) observed, we must realize that the person we select to care for babies cannot do so properly unless those who plan the program make it possible. The ability of adults to provide good care is dependent on many things which sometimes are not under their control, such as the type of physical plant and equipment provided, the number and kind of staff that are budgeted, and the policies made by administrators and boards in regard to schedules and routines.

Materials, Equipment, and the Personal Touch. To put it briefly, my view on materials and equipment is: "It's not what you have, it's how you use it." Too often I have visited day care centers and have had the hostess point out to me the attractive building and elegant equipment present, as if to indicate that such visible material objects were the primary indices of quality of a day care center. But as you may suspect, I view the human components of a child's environment as the more important and powerful influences on his behavior. I believe that certain preschool programs, for example, have tended to put too much emphasis on equipment and materials. The Montessori programs come to mind, for example. Of course, every center for young children should have some equipment such as small stairs to develop large muscle skills, as well as things to smell,

see, touch and taste, to develop the sensory abilities of children. However, this equipment does not have to be the newest or "the best." For as Kritchevskly, Prescott, and Walling (1969) have observed, traditional equipment may be "old hat" to adults, but we need to remind ourselves that it is new to young children. Indeed, common toys and equipment have perhaps become traditional because they supply important and often unique experiences.

In early institutions and orphanages, it was sometimes observed that children, even though they had enough toys, often failed to play with them.

A logical explanation of this is that there were not enough meaningful adults to interact with the children and who could thereby invest the toys with value. Once again, the crucial nature of what is done by the person who cares for the infant is emphasized. Day care settings in which adults are not animated, interactive, verbal and loving people will most likely be undesirable settings for young children. In this section on materials and equipment I should mention two things which have come to my attention recently in visiting several day care centers, things which I believe have been detrimental to the provision of quality care. These things are television sets and desks. I am not against the television industry, but TV in a day care center can be easily misused. I have visited more centers than I care to mention in which the adults were watching TV while the children wer playing by themselves. Or conversely, the children may often be planted in front of the set when they could be more profitably doing other things. To paraphrase Aristotle, moderation in all things, including TV, is desirable.

Evans and Saia (1972) go even further and state that they feel TV has no place in quality day care for infants. They feel that active adult-child involvement is much more important for child development than are TV programs. Therefore, TV is dangerous in that it may encourage custodial "baby-sitting" care. As was the case above, the desk can similarly serve as a setting where little chores that need to be done interfere with quality care giving. If a day care worker seems to be spending inordinate amounts of time behind the center's desk, time which should be spent interacting with the children, a problem exists. One of the causes of this problem may be poor planning of the day, which will be discussed later.

Adult Behavior and the Daily Rituals. When working with small children there are many chores which must be attended to every day. A study by Rahmlow and Kiehn (1967) found, after contacting 259 child care workers from 98 day care centers, nurseries and headstart projects in the state of Washington, that the most frequent activities or rituals engaged in by these workers were those dealing with housekeeping duties, the preparation of food and the care and preparation of materials. Wheeler-Liston (1972) refers to the daily rituals as eating, sleeping, and elimination. Rituals comprise the behind-the-scene activities of the staff; the dirty work they would like to forget about: changing diapers, cleaning up, preparing materials in advance for meals, programming activities, etc. According to Wheeler-Liston, the reward of proper management of such rituals is that once you have them under your control then you have the time and the relaxed environment to respond to each child's needs so that you can function as an enabler of his development. This is why a staff must plan together to help these rituals become part of smoothly

functioning day. Some parts of each day will probably need special advance planning by the staff; for example, the interval just before meal time, when children are tired and hungry. The table must be set, children must be cleaned up and prepared to eat. A staff should have discussed this situation well beforehand and should have planned ways of dividing up the task. Each staff person must know who is responsible for what duty. If two staff members help get everyone into clean diapers and hands washed, one other one might be responsible for setting the table and preparing the baby food, while another takes the infants for a wagon ride with the aide of an older child. It is also important to remember here that the way in which adults behave while performing the daily rituals is crucial. Since the ritual will always be with us, and will comprise a large portion of the daily time, it is necessary for them to be a pleasant and a stimulating time for children. Diaper changing time should be a time to talk and laugh with the child. Toilet training occasions should not be punitive. Meal times should be occasions of warm adult-child interaction. To summarize, it is important for us to remember that what are daily rituals for us as adults, are important social and learning experiences for young children. Since every interaction that a baby has with another person is meaningful and important to his development, it is important for each staff to plan for the management of daily rituals.

Discipline. Textbooks are full of many vague statements which may or may not help you decide what to do in a particular situation with a particular child; statements such as "Different children respond differently to various methods and degrees of control," or "A balance should be achieved between restrictiveness and permissiveness." To be more specific, many studies have shown that discipline in the lower classes

is likely to be physical (Becker, 1964, Bronfenbrenner, 1958, Herzog, 1967). It is my opinion that physical punishment or spanking has no place with children under a year of age in day care setting. Let's stop and think a minute about what constitutes bad behavior for babies up to approximately one year of age. Fighting? Disobedience? Perhaps sex play or "getting into things?" I think we can see that with these kinds of situations there are better ways to control behavior than physical punishment. Namely, the technique of preventing such incidents from ever occuring in the first place, and the technique of distracting the child. One incident that comes to mind involves an eleven-month-old girl in a center who emptied a drawer of clothes onto the floor. A caretaker slapped her on the hands and she started to cry, then the caretaker tried to make her put the clothes back into the drawer. It seems to me that this situation could have been avoided in the first place by putting some tape on the drawer if it was not to be opened. It certainly seems that the child should not have been slapped for engaging in what was, to her, a form of exploratory behavior. Another common situation with infants under a year of age arises when one sees a neighbor with an attractive toy and goes over and tries to take it away. As we shall discuss later, infants are very egocentric and when they see something they want, they try to take it. Again instances such as this should not be handled with physical punishment, but may be managed by providing enough materials for all to play with in the first place, thus trying to avoid any unpleasant incidents. Again, if one should occur, the caretaker might try distraction.

With toddlers, I can think of some instances in which many of us may consider it alright to deliver a small spanking with a loud shout of "No!" One such case was a 2½ year old girl who would occasionally bite another

child. Another involved a child who was nearly three years old, who would pick up large wooden chairs and attempt to hit other children with them. You can see that in both these examples, another child's physical safety was in danger. However, I believe that in most centers spankings can easily become too frequent; and therefore that we should strive not to use them at all as a form of dicipline.

All in all, the issue of discipline with children is a very complex one, but I think that the behavior modification literature (see Krumboltz and Krumboltz, 1972, or Patterson and Guillion, 1968) have made many beneficial suggestions for disciplining children. One of the main points made is that the best technique to eliminate bad behavior is to reward good behavior.. That is, if children get much praise, attention and affection from adults while they are engaged in appropriate behaviors, this will tend to increase the frequency of children's appropriate behaviors; and thereby will serve to decrease the time in which children engage in inappropriate or "bad" behaviors. One discipline problem we tend to have several times a year at our center involves children who exhibit temper tantrums. One two-year-old who did not always get to have all the toys he wanted would throw himself down and yell and scream and hit his head on the floor. This was resulting in his getting more attention by the caretakers and usually more toys also. We remembered behavior modification principles and reasoned that this was teaching him that whenever he wanted toys or attention all he had to do was throw a temper tantrum. So we decided that the best thing to do whenever the child went into his tantrum act the adults should not pay the slightest bit of attention to him. After several days of occasional episodes, the child began to realize that no longer did adults grant favors after a

tantrum. Within a week to two weeks, the child stopped the worst of his tantrums, because they now now longer "paid off." In this case we felt that it was in the best interest of the child for the adults to ignore him for certain behaviors.

Tips for Teaching Infants. I would like to suggest several general rules of thumb for how and what to teach babies. These ideas have been derived from the experiences of many people who have been involved with the education of infants at our Center in Little Rock.

Rule 1. Make learning time a fun time-keep it light and easy Don't push if the child isn't interested. Try another activity, or try again later. Don't feel bad if the child doesn't want to play.

Rule 2. Continue the activity only as long as the children remain interested in it. This may be one minute or twenty minutes but seldom longer.

Rule 3. Concentrate on praising the children's accomplishments. Smile, laugh, look proud if he does what you are trying to teach him to do. Don't scold him if he doesn't do it.

Rule 4. Show the children how to do each activity.

Rule 5. Talk to the children a lot. Don't forget to imitate the sounds and words that the children themselves make.

Rule 6. Say each child's name often. Say a child's name when you praise him, -- "You did it, John. That's good!"

In order to better understand how and what to teach infants of various ages, a brief developmental outline will next be presented, and for each of the age periods a list of sample activities for various age levels is included. They have been selected from the following sources, which should be consulted for additional suggestions: Gordon's (1971) "Baby Learning Through Baby Play;" Painter's (1971) "Teach Your Baby;" and Caldwell et al (1973) "Home Teaching Activities."

Age: 6-9 Months (Developmental Characteristics)

Babies at this age are able to roll over completely (back to belly) although there are wide variations. Some babies begin to crawl more during this time and others can stand with help. Between 6-9 months about half of all babies show stranger anxiety. Children will sometimes cry and become upset when a new person enters the room. However, a wise stranger will keep his distance and only gradually move toward the infant. Stranger anxiety is normal and shows that an infant has formed a strong attachment to his caretakers. Babies at these ages like to engage in the same activity over and over again; adults usually find this boring but the baby is continually learning from the repetition. Infants are becoming more social and enjoy engaging in imitation games using gestures and sounds. Imitation is a social game where babies imitate adults and adults imitate the infant, particularly the sounds he makes. Babies can begin feeding themselves at this age using a spoon; they are always quite messy when they do this because feeding is a very difficult task for them. The reason for the difficulty is that babies have not quite learned where their mouths are. The way they learn this is by lots of practice. Children engage in solitary play except for their interactions with adults, and sharing is something that occurs rarely. Babies usually bang many objects together whenever they have an opportunity; again this is the way they learn about their environment. Babies also love to play a "drop" game where they drop things off the table and adults pick them up; although this may be annoying at times babies are learning about spatial relations when they are doing this.

Age: 6-9 Months (Suggested Activities)

Language/Thinking	Motor	Personal/Social
1. When a baby makes a speech sound, act pleased; smile, laugh, and imitate his sound.	1. Place an attractive toy just beyond baby's reach so he will creep to it.	1. Show baby his image in a mirror at his age level.
2. Read out loud to the babies individually or in small groups each day. Remember, how you read is important--be excited about the book.	2. Provide small blocks for baby to grasp. Show him how to stack them.	2. Play games with baby's hands and feet (such as "This little piggy went to Market" or "Pat a cake")
3. Talk to the infant constantly. Tell him what you are doing. Say "See, let's roll the ball," "Up we go," "this is your nose" etc.	3. Show baby how to drop blocks into a cereal box.	3. Stand behind the baby and ring a bell, let him find it by turning his body toward it as it is rung. He will learn that his body can be used to find objects.
4. Encourage imitation. Get the babies to "do what you do" such as clap your hands, sit down, point to the light, etc.	4. Place a different object in each of baby's hands. See if he can hold and manipulate two objects at a time.	

Age: 9-12 Months (Developmental Characteristics)

By 10 Months some babies have reached the point where they can recognize themselves in a mirror; this represents quite a step in social awareness. Imitation is becoming more frequent and babies enjoy engaging in simple games such as pat-a-cake. The understanding of single words is apparent and babies can point to a few things when given the word such as "glass," "shoe," mama," "book," etc. Babies are very interested in smaller objects now; most of the time babies are exploring and learning about their environment by putting everything in their mouths. Some babies may begin walking during this period but the variation is very large (6-20 months). Most babies can take a few steps with help between 9-12

months. Babies are becoming more interested in their body parts and some begin to show adults upon request "ear","eye,""hand," etc. Babies at this age may still have trouble finding their mouths but adults must remember that the infants are learning so much during feeding time, especially if an adult is giving them attention. Babies love to play hiding games with adults; this type of game must be simplified by the adult. The adult must allow the baby to see where the object is being hidden and then give the child the opportunity to find it. Babies can attend to pictures in books and can turn pages in large books.

Age: 9-12 Months (Suggested Activities)

Language/Thinking	Motor	Personal/Social
1. While baby watches, cover a toy part way with a hankie and say, "Find the _____."	1. Give the baby a length of string with a toy tied to the distant end. Show him to pull the string to get the toy.	1. Let the baby eat while looking into a mirror.
2. Collect different objects from outside. (sand, leaves, sticks, rocks, pine cones, etc.) Let the baby explore each object as you tell him about it.	2. Build a pyramid with blocks or cans. Knock it down and encourage the baby to imitate you.	2. Let baby see himself in mirror with funny clothes on. Take a funny hat off your head and put it on him.
3. With baby watching place his favorite toy in a bag, and help him get it out.	3. Fill a jar with objects and screw the lid on. Help baby get it off.	3. Help him drink from a cup.
4. Put your hand over your mouth and say "wah wah." Now try to get the baby to do this.	4. Show baby how to drop clothes pins into a cup.	4. Play hide and seek with the baby.

Age: 12-18 Months (Developmental Characteristics)

Upon entering this period, babies can usually say single words which refer to something the child wants such as food items, mama, or dada. Children at this age usually engage in "sentence play" where they put sounds together in the same rhythm as a sentence. Of course these strings of sounds have no meaning but are only the babies' way of imitating the adult. During this time babies love to manipulate small objects and will do this for long periods of time (20-30 minutes). By this time children have usually begun to walk. They now love rhythm games, and dancing is enjoyed greatly. In new situations they are very cautious and will usually cling to their caretaker. When they feel more at ease they may begin to explore the new environment or approach the new person. Children of this age are action-oriented: they love to play with large toys such as wagons, trucks, large dolls, etc.

The most exciting development during this period is the child's beginning use of language. The child can now comprehend some of the adult's language although he is not able to produce much speech himself. At first the child speaks in single words, then two word sentences and then his sentences grow to numerous words. Children at these ages show interest in picture books if an adult is attentive and responsive.

Age: 12-18 Months (Suggested Activities)

Language/Thinking	Motor	Personal/Social
1. Go on a walk outside. Keep saying things like "see the bird" "feel the grass" and "Listen to the cars".	1. Allow freedom to walk around and to push objects such as a tricycle, large box or a chair.	1. Show child pictures of people. Get him to say, baby, mama, dada, etc.
2. Play "Which hand is the toy in." Let the children try to find the toy as you switch it from one hand to another.	2. Play ball with the child.	2. Give the child a doll. Show him how to give it a kiss, comb its hair, rock it, love it, etc.

Language/Thinking	Motor	Personal/Social
3. Let the children listen to records while they play with drums and bells.	3. Show him how to roll over and do a somersault. 4. Provide things to climb on such as stacked mattresses. 5. Show the child how to scribble on a piece of large paper with a crayon. 6. Blow bubbles and let the children try and catch them.	3. Help the children learn to point at things. 4. Help the children throw away garbage from snack or lunch. Provide a convenient garbage pail. Let them help wipe the table.

Age: 18-24 Months (Developmental Characteristics)

Now children enjoy learning to name objects in their environment and also to describe certain situations -- "new shoes," "want drink," "please read book." By 24 months children have begun to use language more proficiently and at times speak in several full sentences to adults. At this point they can sit and listen to a story, point to the characters, name the colors, and talk about the story line. Usually children love to hear the same story over and over again. At 18 months a child's vocabulary is about 10 words and by 24 months the vocabulary has grown tremendously.

The child at this age engages in many large-muscle activities. He is forever exploring his environment and finding out how things work -- faucets, drawers, telephones, etc. It is likely the child may leave a project before it is completed. Children find quiet activities fun also and can spend many minutes sitting and discovering how small objects work.

Lots of dramatic play is seen during toddlerhood; toddlers love to imitate adults. This is a good time for adults to facilitate language by becoming a part of a socio-dramatic episode -- "Oh, I see you are

making supper (child is playing in a toy kitchen). What are you fixing? Sure looks good."

Toddlers are not usually able to engage in cooperative play but can engage in parallel play -- playing alongside a playmate.

By 24 months children are almost toilet-trained..

Age: 18-24 Months (Suggested Activities)

Language/Thinking	Motor	Personal/Social
1. Get the children to pretend to serve dinner with toy plates and to pretend to drink from a toy cup.	1. Help children make a tower with blocks. They should be able to stack blocks 4-8 blocks high now.	1. Help children make human-shaped figures out of clay. Name and compare body parts.
2. Attach balloons to the children's wrists with string.	2. Play record and practice marching backwards.	2. Cut a large picture of a person out of a magazine and make a 2-piece puzzle out of it.
3. Put substances with different odors in baby food jars (garlic, perfume, cloves, mint, etc.) Pass the jars around and discuss the different smells.	3. Help children to make a straight line with a crayon.	3. Help children name different objects in their room.

Age: 24-30 Months (Developmental Characteristics)

Children are now able to relate experiences in simple language with prompts from adults. Some can tell their name and age. This period in a child's life is very important for language development -- some say is the most important. Children should be encouraged to verbalize whenever possible. Snack and mealtimes are good times for stories and discussions of stories.

A child's movements are becoming more coordinated. The child can make representations of the world through media such as paints, clay, and

dramatic play. Children can spend long periods of time playing as if they were adults. They engage in the regularities of everyday life -- cooking, getting dressed, getting washed, going shopping, etc. However, a young child does not understand how the real world operates. Children should be encouraged to engage in sociodramatic play (pretending) and this type of play becomes even more meaningful if adults invest their interest in the child's activities.

Children are growing more independent and many can dress themselves with some assistance.

Age: 24-30 Months (Suggested Activities)

Language/Thinking	Motor	Personal/Social
1. Poker chips and three cans can be used to teach children to sort-all the red chips in one can, etc.	1. Play "Ring around the Rosey" and "London Bridge is Falling Down"	1. Make hand puppets from old socks. Let the children make them dance and talk to each other.
2. Show children pictures of common objects and ask them to name what is pictured.	2. Play "Walk between the strings." Use 2 strings placed on the floor, far apart at one end, close together at the other.	2. Let children take turns helping you set the table and serve snacks.
3. Ask each child to show you different things. Say "Where's the door -- the window -- the table, etc.	3. Show children how to draw a circle.	3. Play "dress up" by putting old adult clothes on the children. 4. Encourage the children to pretend they are dogs or cats -- get down on the floor and start barking! 5. Make a life size picture of each child. Let him draw in the details.

The Physical Layout of the Center

While there are many variations in the arrangement of space found at different cencers, there are common features which quality centers share:

Safety. A quality environment will, ofcourse, meet all applicable rules and regulations for a day care center. In addition to federal and state codes which may apply, the American Academy of Pediatrics (1971) has published a helpful booklet which day care centers should meet. While all of their recommendations cannot be listed here, I would like to mention several of which we may not be aware. For example, they suggest having a "separation area" equipped with one crib for every 20 or fewer children in a separate room; they state that cribs should be three feet apart on all sides; that exit doors have panic release hardware and that there be at least two such doors leading from the infant area, and that no permanent wading or swimming pool be permitted.

Each caretaker in a setting for young children can do many little things to improve safety and reduce hazards -- things which may not appear in anyone's official list of rules and regulations. For example, one center I know of had trouble with toddlers opening cabinet doors and occassionally piching their fingers in them. The staff solved this problem by putting a heavy rubber band over the handles. We should always remember to try and anticipate accidents and prevent them by providing a safe environment, for young children have not yet developed what adults call "judgment," and anything that appears inviting to them will usually be pursued.

Interest areas. While no single arrangement of space can be said to be ideal, quality environments for young children tend to have several

features in common. That is, they usually include a variety of interest areas ranging from space for large muscle toys and activities to quiet, private areas where one child may be alone. Evans and Saia (1972) suggest that these interest or "activity" areas are characteristic of good programs: (1) Large motor activity areas. These are spacious parts of the room, perhaps covered with indoor-outdoor carpeting, where infants may play on the floor with large toys, walkers, or on small slides or other climbing devices. A tiled area is also desirable for riding tricycles and wagons and kiddie cars. Other toys in these areas might be infant bounce chairs, tumbling mats, and beach balls. (2) Block area . This area should be partially screened off from the main part of the floor. (3) Housekeeping area. This area might include a minature kitchen with pots and pans, and a bedroom setting with assorted dolls. Much role-playing and sociodramatic play can be stimulated in this area. Let us remember that this setting is, perhaps more than any other, the place where the earliest sex-role learning may occur. At our center we encourage the boys (even at the age of 6 months) to get those dishes washed! (4) Table areas. Several low tables should be present in the room for art activities, play dough, finger painting (infants can finger paint with chocolate syrup), coloring with crayons, etc. One thing to remember is to rotate your toys. This technique will help provide more novelty in the environment. After a toy has been used for a week or two, put it away for two weeks and then get it out again. This will help prevent boredom. On the other hand, be careful not to put too many different toys in the room, for overstimulation is also possible. (5) Book area. Certain books should be within the children's reach, while others may be kept on a higher shelf. A felt board and colorful posters might also be present in this area. (6) Special areas. From

time to time, provision may be made in part of the room for sand or water play. At our Center we frequently let one-year-olds stand on a chair by the sink, with a plastic bib on, and play with water toys. Music should not be neglected--from time to time let the children use rhythm band instruments if you can borrow them from an older group.

We should all be aware that the arrangement of available space and the manner in which a room is arranged will affect the behavior of children. As Caldwell (in Elardo and Pagan 1972) explained,

> "a piece of equipment (like a sand box or water table) which can accommodate as many as eight children will, if it is placed where the children cannot freely move up to it and around it, elicit quarrels and aggression rather than sharing and cooperation." p.81.

The Daily Schedule

A carefully planned daily schedule is a vital part of a quality day care environment. Schedules are beneficial to children because they help insure the consistency and regularity that helps feelings of security develop. Schedules are beneficial from the adults' point of view in that they help everyone to know who is to do what, and when to do it. Therefore, the daily schedule should include assignments for routine cleanup duties, for planned learning activities, and for breaks. The planning and schedule-making should be done in the afternoons, while children nap.

The following is a typical schedule from our Center's baby house. We have one teacher and two paraprofessional co-teachers, and twelve children who now range from 11-20 months of age. (Most are about 15 months of age). It is a full-day program, which runs from 8 to 3, and provisions

are made for a few children who arrive earlier or stay later. It should be remembered that in practice the schedule is not as rigid as it might appear on paper; if interest and attention are high an activity will be continued for a longer time, and if the children are not interested in an activity, a substitute will be offered.

Schedule for Thursday

8:00
Teacher A - read books on couch
Teacher B - change children's clothing
Teacher C - give individual attention; begin water play

8:25
Teacher A - give individual attention during free play
Teacher B - do pasteing activity at round table
Teacher C - do puppet play in doll corner

8:50
Teacher A - block building in block corner
Teacher B - give individual attention, turn in lunch count and attendance
Teacher C - show filmstrip in back room

9:15
Teacher A - sit at snacktable and read story
Teacher B - sit at 2nd snack table and read story
Teacher C - serve snack and clean up.

9:30
Teacher A - Break (9:30-9:40)
Teacher B - Sing songs, play records on rug
Teacher C - Sing songs, play records on rug

9:40
Teacher A - make sock puppets with older children at round table.
Teacher B - water play in kitchen with younger children
Teacher C - give individual attention

10:10
Teacher A - play group games outside (recess)
Teacher B - Break (10:15-10:30)
Teacher C - give individual attention outside.

10:30
Teacher C - Break (10:30-10:45)

11:15
Teacher A - serve lunch
Teacher B - wash hands
Teacher C - take off shoes

12 Noon
Teacher A
Teacher B } Begin naptime for most children, lunch for teachers
Teacher C

1:00
Staff meeting, planning

2:00-3:00
Teacher A
Teacher B } as children wake up, give quiet individual attention
Teacher C } during free play.

Duties for the week
Teacher A - serve lunch
Teacher B - prepare snacks, wash sheets
Teacher C - keep bathroom clean

Continuity of Care

Margaret Mead (1972) expressed the opinion that children under two need a great deal more continuity than day care centers can provide; but this question remains for those of us in day care -- "How can we provide the continuity and stability of care that infants apparently need to establish secure and predictable relationships with other human beings?"

Infants have a basic need for attachment (see Bowlby, 1969 or Ainsworth, 1969). That is, they need to form close and enduring relationships with one or a small number of adults who care for them. From what we know about the development of attachment, we can say that an infant should have only a few caretakers. In day care settings, an infant should not be exposed to large numbers of adults who take turns in providing care for him. He should have a "major caregiver" who is assigned to him and to perhaps to three other infants. This arrangement provides a more stable and "continuous" environment for the infant.

Meers and Marans (1968) have cautioned against having a multiplicity of caregivers who are interchangeable and warn that psychological damage

may occur as a consequence of this practice. Again, what this implies for day care workers is, for example: if you have a center with 15 children, one adult should become a special caretaker for five of the children. This might mean that at snack time, the adult would sit with "her" five children, and at nap time she might put them to bed or likewise get them up when the nap time is over and try to change their diapers, and the other adults would do this for their five children. How should babies in a day care center be assigned to the special caregivers? There are probably many ways to decide this. One idea which comes to mind is that you should not give any one particular caregiver all of the "fussy" infants. You can see in this type of arrangement you would expect that the caregiver would come to know her five children and hopefully their families much better than if she was just providing random care to the entire group. This getting to know one particular small group of infants is one way to provide for continuity. For example, with mother of one of "your" infants you can discuss some of the sounds that he is making. The mother might tell you that when he says, "poo-boo" that means that he wants to go to the bathroom. This is again a way to provide continuity with regard to the understanding of the infant -- continuity from home to the day care setting.

Since the parents of most children in day care will be at work all day, a weekly phone conversation between caregiver and parent (perhaps in the evening) is one way to get together and share information about the child's progress. Of course, more parent input to the program is desirable.

In brief, then, day care programs can attempt to insure the continuity and stability that infants need by working to avoid a high rate of staff turnover, by employing a "major caregiver" system of care,

and by providing a means of parent input.

Summary

We have explored some of the attributes of a quality day care program -- the kind of program that research (see Caldwell, 1972) has shown can be beneficial to child and family development. Studies of the effects of quality group day care indicate that the infants' health can be maintained, his intellectual development can be stimulated, and his attachment to his mother (and vice-versa) does not decrease.

It should be our aim to see that all day care programs become quality programs, so that the positive benefits of such an experience can be enjoyed by all children.

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