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NATURALISTIC OBSERVATIONS OF INSTITUTIONALIZED RETARDED PERSONS: A COMPARISON OF LICENSURE DECISIONS AND BEHAVIORAL OBSERVATIONS

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In the last several years, various organizations have produced strikingly similar documents by which institutions for retarded persons are judged for licensure. The purpose of the present study was to determine whether residential units that were licensed differed from residential units that were not licensed in terms of the active programming behaviors of their staff and residents. Data were collected through a time-sampling procedure that yielded about 160,000 observations on eight staff and six resident behaviors. Results showed that the licensed units were just as derelict as unlicensed units in providing habilitative programming for their retarded residents. Maladaptive responding by residents occurred at least as much as task-related behaviors: residents spent as much time self-stimulating as they did in programming; they also engaged in self-abusive behavior about as much time as they engaged in on-task responding. Results were discussed in terms of the failure of governmental regulations that are not based on observation to adequately assess habilitative programming.

DESCRIPTORS: evaluation, ecological research, mental retardation, institutions

In recent years, various groups (e.g., U.S. DHEW, 1974; Accreditation Council, 1971; state licensure bureaus) have developed standards or guidelines by which intermediate care facilities for mentally retarded persons should operate. Each document covers a wide range of topics, but in each case some portion of these standards has been concerned with habilitation. Although the language varies across the documents, they all call for active programming directed toward developing independence through activities of daily living. In all cases, particular services are required in order to (a) facilitate intellectual, sensorimotor, and affective development; (b) prescribe an appropriate program of training experiences; (c) provide written training and habilitation objectives; and (d) provide evidence of training and habilitation services to meet these objectives. Basic to the concept of active habilitation is the premise that students will be active, that staff will be active, and that students and staff will interact to the habilitative benefit of the client.

The intent of all these documents has certainly been laudatory. The private standards of the Accreditation Council, more commonly known as the Joint Commission on the Accreditation of Hospitals, are certainly an appropriate goal for all facilities (see Crosby, 1976, for an explanation). The U.S. DHEW guidelines, more commonly known as the ICF-MR guidelines, are equally purposeful and are, in fact, almost identical with the JCAH standards (see Repp, 1976, for a comparison). These two documents are quite popular and their language is replicated in most of the documents produced at the state level. Yet, there is some information that although a facility may be approved as meeting standards, the decision may not accurately reflect the daily educational opportunities available for a facility's clients. For example, Bible and Sneed (1976) found that staff adjusted the amount of

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programming available to residents, increasing it by 276% during the days a JCAH team was inspecting the facility. Others have commented informally that, although these standards are certainly appropriate, they may have little bearing on the educational programming available to retarded persons. The purpose of the present study was to determine whether residential units that were licensed differed from residential units that were not licensed in terms of the active programming behaviors of their staff and residents.

METHOD

Subjects and Setting

The study was conducted at a large state institution housing about 1,200 residents. Of these clients, about 220 lived in cottages in which behavioral observations could be made without disrupting the routine of the day. Of these cottages, two had been licensed by the state, and were in this sense accredited by the state. Six other cottages, however had not met the various licensure requirements.[1] Thus there were two groups, at the same institution, governed by the same people, and inspected by the same state—one group of cottages was licensed, and the other was not.

The licensed group consisted of Cottages A and B. Cottage A housed approximately 40 male or female children or adolescents, who were hearing impaired as well as either severely or profoundly retarded. The cottage itself had been architecturally modernized, had small bedrooms, small programming rooms, a classroom, a speech therapy room, and a large dayroom. Many of these individuals were involved in programs located in buildings other than the main cottage. Programming away from this cottage typically consisted of less than 2 hours daily of educational and/or recreational therapy. These experiences were scheduled four times daily for the cottage and usually involved four to eight children at a time. A classroom located in the cottage, as well as the various therapy and programming rooms, the dayroom, and the outside play area, were used as observation sites in this study.

Cottage B housed approximately 40 male or female children or adolescents who were physically handicapped as well as severely or profoundly retarded. The cottage itself had also been modernized so that it had several small rooms for programming, a dayroom, a dormitory, a classroom, a speech therapy room, and a pool for physical therapy. All the habilitative programming for these individuals took place in one of the areas within the cottage, and observations were made in all areas.

The unlicensed group consisted of Cottages C, D, E, F, G, and H. Cottage C housed approximately 30 male adolescents or adults who were severely retarded. The cottage had not been redesigned and consisted principally of a large central dayroom and a single room in which all residents slept. Many of these individuals were programmed for the majority of the day in areas other than the cottage. Programming for these individuals consisted primarily of a twice daily 2-hour workshop experience located at the institution. Cottage D housed approximately 40 male adolescents who were either severely or profoundly retarded. This cottage had also been left in its original condition and consisted of a large central dayroom, two attached dormitories, and a large playground. Many of these individuals received programming approximately 2 hours daily either in workshops or in classrooms. Cottage E housed approximately 30 males or females who were hearing impaired as well as severely retarded. Unlike C and D, this cottage had been restructured. Many of these individuals

[1]Licensure requirements are extremely detailed and cover many areas. For representative discussions of various requirements, see Crosby (1976) or Repp (1976). The issue in this paper, however, is that licensure requires a facility to have objectives for individuals and to have programs to meet those objectives. Licensure does not, however, provide specific statements about programming; instead, it provides general statements such as "each resident shall receive active programming six hours per day." Thus, when a facility is licensed, one is left to presume that substantial, albeit nonspecified, effort has been made to provide habilitative programming.

were programmed daily for 1-2 hours away from the cottage in a workshop. Cottages F, G, and H were much smaller cottages than the previously described ones. Many of the individuals in these cottages received some programming away from their cottages. Again, programming typically consisted of less than 2 hours daily of educational and/or recreational therapy. Not all students in these areas participated in these programs. Cottage F housed 12 male adolescents who were severely or profoundly retarded; in addition, many were visually impaired. The cottage was a small, older building with dayroom, dormitory, dining room, kitchen, and an adjoining playground. Cottage G housed 12 male or female adolescents who were visually impaired as well as severely or profoundly retarded. Cottage H housed 16 male or female children or adolescents who were visually and hearing impaired as well as severely or profoundly retarded. Both of these cottages were structured like Cottage F. Table 1 summarizes both the licensed and the unlicensed cottages. In addition to differing architecturally and in the residents served, the cottages also differed in the client:

Table 1
An Overview of the Residents Observed in this Study

Site	*N*	*Sex*	*Age*	*Disability*
			LICENSED COTTAGES	
A	40	M, F	children, adolescents	SMR/PMR, hearing impaired
B	40	M, F	children, adolescents	SMR/PMR, physically handicapped
			UNLICENSED COTTAGES	
C	30	M	adolescents, adults	SMR
D	40	M	adolescents	SMR/PMR
E	30	M, F	adolescents, adults	SMR, hearing impaired
F	12	M	adolescents	SMR/PMR, (some) visually impaired
G	12	M, F	adolescents	SMR/PMR, visually impaired
H	16	M, F	children, adolescents	SMR/PMR, visually impaired and hearing impaired

staff ratio. Typically, the licensed cottages had a ratio of four clients to one staff member during the observation periods, whereas the unlicensed cottages had a ratio between 4:1 and 10:1. Thus, the licensed cottages had an advantage in the number of persons available to provide programs.

Behavioral Definitions

Behaviors of both staff and clients were recorded to provide information on the extent to which each group was actively involved in habilitation efforts. The staff behaviors were in two major categories: no interaction and interaction. In the interaction category, five directions, one consequence, and a guidance procedure commonly used with retarded people in task situations were considered. The following definitions were used:

1. *No interaction*—no physical or verbal interaction between the staff member and any client.
2. *Verbal instruction*—through standard language (i.e., either vocal or manual communication), staff instructs the client to perform some activity and offers no physical assistance.
3. *Nonverbal instruction*—through a gesture (not including manual communication), staff instructs the client to perform some activity and offers no physical assistance.
4. *Verbal instruction with physical assistance*—through standard language (i.e., either vocal or manual communication), staff instructs the client to perform some activity and provides physical assistance (e.g., guides client through a self-dressing task with verbal aide).
5. *Nonverbal instruction with physical assistance*—through a gesture (not including manual communication), staff instructs the client to perform some activity and provides physical assistance (e.g., points to the door and guides client to move toward the door).

6. *Physical assistance*—without prior verbal or nonverbal instruction, staff physically assists client (e.g., staff helps client put on his shoes).
7. *Social*—staff claps or praises, hugs, etc. client.
8. *Custodial guidance*—staff physically assists client in a custodial manner and not in a task situation (e.g., ties shoes of client in order to allow client to move along quickly with other clients).

Client behaviors were in two major categories. The first was concerned with involvement in habilitative programming and included on task, off task, and no programming. The second included the nonprogramming behaviors self-aggressive, other aggressive, and self-stimulatory. The definitions for these behaviors were:

1. *On task*—the client emits a verbal or motoric response to a question, command, instruction, or nonverbal cue (e.g., a gesture by the staff); or compliance but lack of an overt response when no overt response is necessary or appropriate (e.g., looking at pictures in a book).
2. *Off task*—in the presence of a cue for responding, the client either (a) does not respond, (b) responds inappropriately, (e.g., stands when asked "What color is this?"), or (c) does not look at relevant task stimuli.
3. *No programming*—nothing is being asked of the client or being demonstrated to the client or being provided for the client to do.
4. *Self-aggressive*—client strikes, bites, slaps, hits, or kicks own body, or causes his body to contact with force other objects. The response should not be accidental (e.g., slips on a step).
5. *Other aggressive*—client strikes at, throws objects at, or verbally threatens others, or in some other way threatens to harm another client or a staff member.
6. *Self-stimulatory*—client engages in solitary activity but actively manipulates some object(s), or is engaged in solitary, asocial, repetitive behavior (e.g., rocking, headweaving).

Recording Procedure

Prior to the collection of data, the facility's administrators were given a list of all the behaviors that were to be recorded. This information was made available to all staff; thus, everyone working at the facility had access to what was being recorded. This study, however, was part of a much larger study, requested by the facility, that provided information on all cottages. There was no issue of licensure; rather the data were sorted to provide this information. Thus, neither the staff nor the observers knew that such a comparison would be made.

For 16 days, four observers recorded for 250 min per day. Each person observed one location for about 50 min. Then, the observer walked to another location and recorded for another 50 min. This procedure was followed until each observer recorded in five locations each day from about 9:30-11:20, and 1:00-3:50. Sites were rotated randomly, so that no observer was in one site more than once per day, and so that each site was observed by each person about the same amount of time. This procedure yielded about 160,000 observations across cottages including their classrooms and play areas.

At the beginning of each session, the observer went to the office of the building to indicate that he or she was going to record data. The observer would then move to a convenient recording location in the room in which programming was to occur; thus, all staff knew at all times that behavior was being recorded. Data were recorded at 6-sec intervals, with the intervals being signaled through earplugs by a portable tape recorder. At the end of each 6-sec interval, the observer marked any response category that had occurred within the 6-sec interval. The observations were made in a sequential manner, i.e., on S_1—S_2 . . . S_n, S_1—S_2 . . . S_n. Thus, all staff and all residents present were observed each day.

This procedure was used rather than a sampling procedure in which perhaps 10 of 30 people were observed, and inferences were made about the other 20. The sequential method of observation was used because it has been shown to produce data that are quite similar to what would have been produced if data had been collected on S_1 and on S_2 and on . . . S_n throughout the entire session (Thomson, Holmberg, & Baer, 1974).

There were three recording rules other than that of simply marking what had just occurred. The first was that after observation of a staff member, something had to be marked. If none of the seven response categories had occurred, the observer marked the no interaction category. The second rule concerned client responding, and it was that after each observation, on task, off task, or no programming had to be marked. The categories of aggression and self-stimulation were to be marked only if they had just occurred. The third rule was that if more than one client or staff response occurred in the same interval, both could be marked (e.g., self-stimulatory and off-task responding).

Reliability

Interobserver agreement was assessed each day by having a second observer randomly assigned to the various recording sites. This produced about 40 hours of data collection in which reliability was assessed. Observations were coordinated through a y-plug from the tape recorder that allowed each observer to hear the beginning of each successive interval. Because something was marked at the end of each 6-sec interval, and because the observers were 3 m apart, the observations were quite independent. The principal observer did, however, cue the secondary observer on the person to observe when the number of subjects was large, and the people were not seated. Interobserver agreement was calculated by dividing the number of intervals in which both observers agreed by the total number of intervals. The overall mean agreement on staff interactions was .98 with a range of .95 to .99. The overall agreement on client behaviors was .82 with a range of .76 to .89.

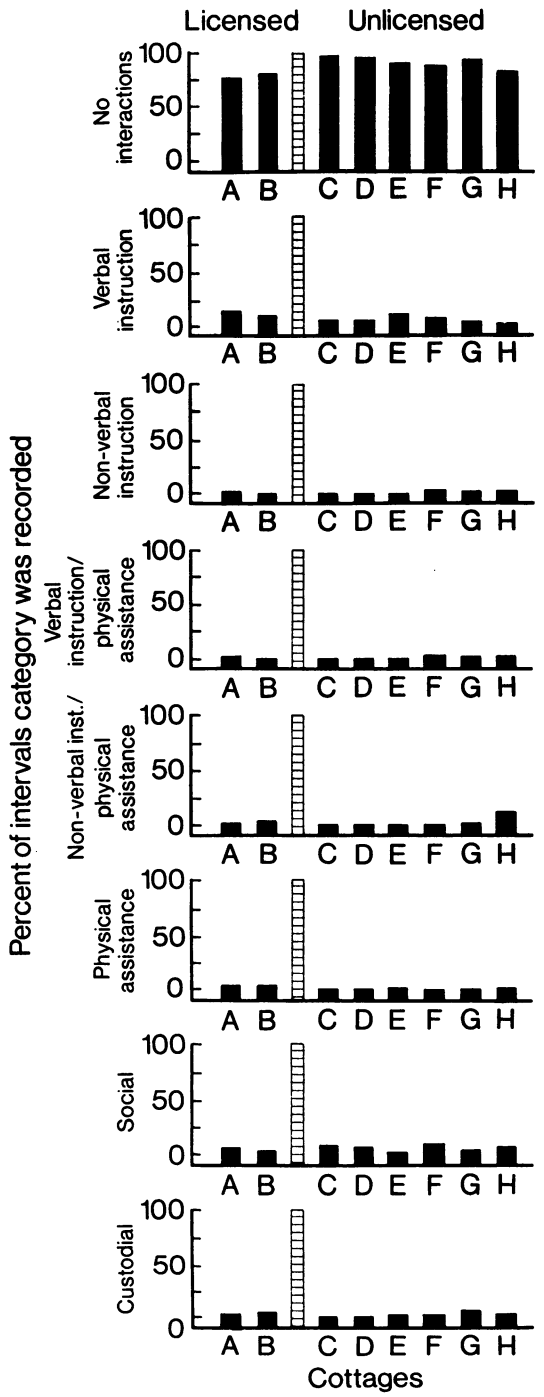

Fig. 1. The mean percentage of 6-sec observations in which each type of staff interaction with residents occurred. Cottages A and B were licensed, but none of the other cottages was licensed.

RESULTS

Figure 1 represents the percentage of observations in which each of the eight staff categories occurred. The results show that in an overwhelming number of the observations, *no interactions* was marked. For the two licensed cottages, staff were not interacting with the clients a mean of 78 and 80% of the time; for the six unlicensed cottages, this mean ranged from 82 to 95% of the time.[2] Thus, whether or not a cottage was licensed, staff were interacting very infrequently with clients during what would seem to be the normal habilitative programming hours of 9:30-3:50.

Of the various forms of verbal instruction, nonverbal instruction, and physical assistance, verbal instruction occurred the most: 9% and 17% of the observations for the licensed cottages, and 2% to 14% of the observations for the unlicensed cottages. Although the licensed cottages had higher averages than the unlicensed cottages, the averages for each staff member when divided by the number of residents present provided few interactions *per resident.* Interestingly, the two cottages (A and E) that received the most verbal interaction were cottages with residents who were hearing impaired. Much of this interaction was in the form of manual communication (which along with vocal behavior provided the definition of verbal interaction).

The various forms of physical assistance, whether alone, with verbal, or with nonverbal instruction, occurred remarkably infrequently with these residents, although graduated guidance is a highly appropriate teaching strategy with persons of this developmental level. Equally striking was the extremely low rate of social behavior directed by staff toward the clients. Whether the cottages were licensed (mean = 4%) or unlicensed (mean = 5%), there were few occurrences of praise or encouragement. The overall finding across all categories, regardless of whether cottages were licensed or unlicensed, was that staff did not direct their attention toward the residents.

Figure 2 represents the data provided through the observations of the clients. The first set of

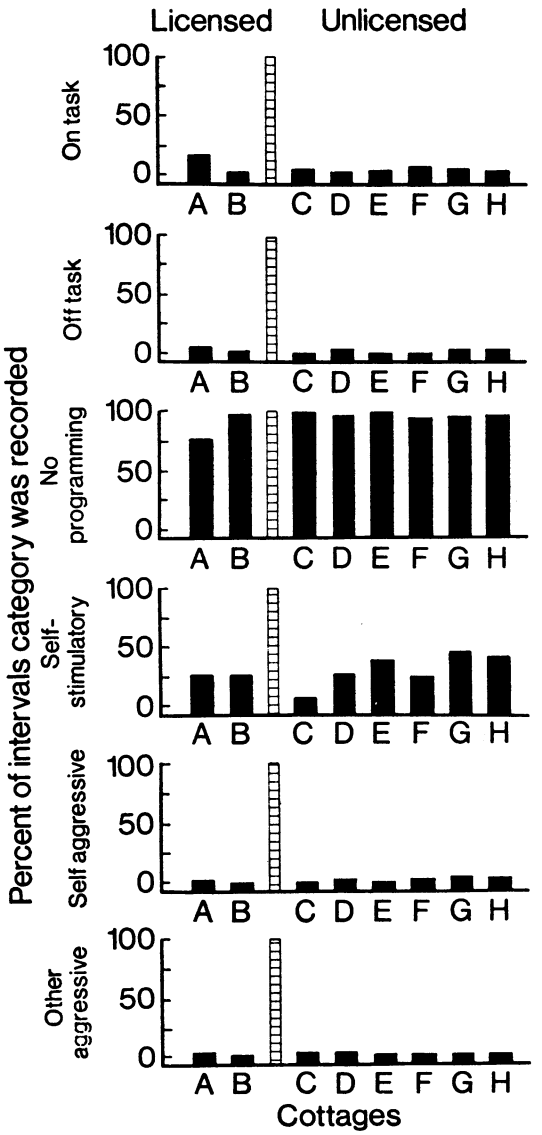

Fig. 2. The mean percentage of 6-sec observations in which each type of resident activity was recorded. After each observation, either no programming, on task, or off task was recorded. If self-stimulation, self-aggressive, or other aggressive occurred, it was marked during the same interval. Cottages A and B were licensed, while none of the other cottages was licensed.

[2]Data were not collected on staff behaviors other than those listed in this study. Subjectively, however, the observers indicated that much of the time, staff were conversing with one another or they were alone, essentially resting.

data indicates whether the resident was on task, off task, or without programming. From the data on staff behavior, one could presume that because there was little staff interaction, there would be little programming. Yet, only from the data, one could argue contralaterally that programs were available, that they were primarily maintenance in nature, and that high rate staff interactions were unnecessary. Figure 2, however, dispels that notion. For the two licensed cottages, no programming was recorded 77% and 98% of the time; for the six unlicensed cottages, this figure ranged from 92% to 99%. With these figures, the amount of programming in Cottage A would certainly differ statistically from the amount of programming in the other cottages, but the difference would be one only of statistical significance; it is not one that should be interpreted as educationally significant. Again, whether the cottages were licensed or unlicensed, a lack of programming was the rule and not the exception. When residents were programmed (i.e., presented tasks), residents from Cottage A were on task the greatest percentage of the time (17%). Yet, curiously, residents from Cottages C, E, F, G, and H were actually on task a greater relative percentage of the time (i.e., when on task was divided by the sum of on task and off task). Considering the lack of programming in general, the specificity of the definition of on task, and the recording procedure generated by the definition (that a response had to begin within 6 sec of instruction or it would be marked off task), these clients were actually on task a surprisingly large percentage of the time that they were presented any task at all.

The second set of data concerns the clients' self-stimulatory and aggressive behaviors. Figure 2 shows that self-stimulatory behavior was oceach of the licensed cottages and 7% to 47% curring a large percentage of the time: 27% for of the time for each of the unlicensed cottages. With this category as with others, there seemed to be little relationship between licensure and responding. In all cases, residents were engaged in self-stimulatory behavior a large percentage of the time. The aggressive behaviors, whether to oneself or to others, occurred relatively infrequently and independently of whether a cottage was licensed or unlicensed. Interestingly, however, self-aggressive responding was occurring 3% (H) and 4% (G) of the time for two of the unlicensed cottages. Although this number is small in the absolute sense, it is quite large in the relative sense when one considers the severity of the response and that it was occurring for the average resident 8 or 9 min of every 4 hours of observation.

DISCUSSION

The results of this paper are discouraging on at least two counts. The first is related to the original intent of this paper: to determine whether licensed and unlicensed units differ in the degree to which they are actively engaged in habilitative programming. The data show that there is little difference, and this result has two implications: (a) that various standards and guidelines may not be getting at the heart of the matter when they issue licenses based on building constructions, on objectives written in IEP's, and on many other areas to *the exclusion of direct observation;* and (b) that a unit or a facility may be licensed even when it is not providing active habilitation for the clients of that unit or facility. These data indicate that if we are to include the concept of active habilitation in our standards, then cottages like these should not be licensed.

The second point is broader than the issue of whether licensed and unlicensed units differ in the degree to which they actively provide educational opportunities. These data, quite objective and reliable, show that despite all the excitement over the Education for All Handicapped Children Act, 1975, that despite all the promises of court cases like *Wyatt v. Stickney, New York Association for Retarded Children v. Rockefeller, Halderman et al. v. Pennhurst State School et al.,* we still do not provide sufficient educa-

tional opportunities for many retarded citizens, even in our licensed facilities. These data cannot be interpreted too strongly, for they were recorded with the complete awareness of the administration and of the staff being observed, and they were recorded during the hours one would expect most of the educational opportunities in a resident's life to be made available. If they are biased, they are biased in a direction *favorable* to the facility. Yet these data show that for the approximately 240 min these residents were observed each day, they (1) had programming presented to them for only 2.5 to 55 min, (2) received some kind of interaction with staff 12 to 53 min, (3) were on task 2.4 to 41 min, (4) were self-stimulating 17 to 113 min, and (5) were engaged in self-destructive behavior 0 to 10 min. When the categories are compared, we find that for every minute of programming, residents in Cottage A were self-stimulating 1 min; that for every minute of programming, residents in Cottage B were self-stimulating 11 min; that for every minute of programming, the residents of Cottages C through H were self-stimulating 7, 6, 9, 3, 7, and 7 min, respectively. Every individual on the average was spending more time self-stimulating than he or she was spending in programming. The data are equally discouraging when one compares self-aggressive responding with on-task responding. Residents in Cottages B, D, E, G, and H spend about as much time engaged in self-aggressive behavior as they spend on task, presumably learning adaptive behaviors.

There are some who might question whether the differences between the licensed and unlicensed cottages were socially significant; i.e., that slight differences in the observational data represented significant differences in the quality of programming for these two groups. Unfortunately, there were no questionnaires given to various visitors to the institution that could provide this information. There were, however, two classes of 40 university students majoring in special education who visited the institution and were asked to comment on what they saw. They expressed extreme disappointment in the lack of programming provided these residents. Again, however, the broader issue is that insufficient services were being provided for these residents, whether or not the units were licensed. The data from this study can be compared with those of Boles and Bible (1978) who have provided information on the *student service index* which was designed to reflect the degree to which 60 institutionalized profoundly retarded people were receiving habilitative programming. Their observations occurred 7 days a week, from 49 to 91 hours per week, and went on for 78 weeks. The measures were different from those in the present study, thus direct comparisons cannot be made; yet a "gestalt" of adequate staff and resident behaviors can be formed and a subjective comparison can be made. One form of the index had seven well-defined areas which can be summarized as: (1) appropriate staff/resident interactions, (2) appropriate resident programming, (3) appropriate staff distribution, (4) clean programming rooms, (5) residents appropriately dressed and groomed, (6) all data sheets completed, and (7) off-section staff engaged in assignments. The percentage of observations in which all seven categories were scored as appropriate was greater than 90, a figure which, although not able to be compared directly with the data in the present study, does provide an indication of large differences. More directly comparable are data from the senior author, who worked at the same institution as Boles and Bible. Time-sampled data, recorded from 9:00-3:00, Monday through Friday, showed that 60 severely or moderately retarded persons were being provided programs by staff more than 75% of the time. Thus, the difference between programming provided individuals in the present study and programming that can be provided institutionalized retarded persons is considerable.

In summary, these results are extremely discouraging; they indicate that: (1) facilities can be licensed and still not provide habilitation for their clients; (2) despite the technology we have developed for teaching adaptive and reducing

maladaptive behaviors, many people remain unaffected; and (3) we still do not provide habilitative opportunities for all retarded citizens, despite all that the recent judicial decisions and governmental regulations seem to promise.

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