The study of the divisional concept, a residential model to intensive programming for optimal resident development, reported on effectiveness of intensive, specialized treatment programs on growth and development of retarded residents and compared effectiveness of four divisional or intensive, specialized treatment approaches to single, large multi-purpose facility. The rehabilitation program in the residential institution was explained to have been divided into four divisions of vocational rehabilitation, education and training, independent living, and development and training. Principles underlying the divisional concept were reported to be that every resident was programed, that programing was made meaningful and coordinated over a 24-hour period for both in-cottage and outside cottage settings, that programing was comprehensive in nature since the program decisions for a child were team prescriptions carried out by assigned team members in reasonable harmony, that residents and program receive more frequent evaluation, and that parents of residents were involved more often in group and individual meetings. Studies on adaptive behavior indicated that the divisional concept was a more efficient framework within which personnel, social, and real or potential vocational progress may be expected. (CB)
FOREWORD

The South Florida Foundation for Bereaved Children has invested its time and resources into the development of programs that support the emotional and psychological well-being of children who have experienced the loss of a loved one. Through these efforts, the foundation aims to enhance the understanding and provision of support services, ensuring that children can heal and eventually move on with their lives. The aim is to integrate these services into the broader community, making them accessible to all who need them.

One critical aspect of addressing the needs of bereaved children is the education that can be provided to families and professionals. By understanding the grieving process and the impact it can have on children, parents and caregivers can better support their loved ones. The foundation is committed to sharing knowledge and resources with practitioners, educators, and families to improve outcomes and provide effective support systems.

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THE DIVISIONAL CONCEPT — A RESIDENTIAL MODEL TO INTENSIVE PROGRAMMING FOR OPTIMAL RESIDENT DEVELOPMENT

Summary Statement

Arnold D. Cortazzo, Barry J. Schwarz and Robert M. Allen

The findings of both the President’s Committee on Mental Retardation (1967) and the National Association for Retarded Children (1968) indicated the need for drastic improvements in the residential care presently provided by most large multi-purpose institutions. Dunn (1969) summarizes many of the problems clearly in the following statements: “The many disadvantages of the large multi-purpose residential units are equally familiar. In reality, they have usually tended to be custodial rather than intensive-treatment and rehabilitation oriented. Traditional institutions have been so large that the personalized approach has been sublimated by impersonalized services. Competition and buck-passing among the various professional groups have been known to exist. In most cases, a pecking order among the staff has inevitably evolved to the detriment of the residents. Finally, much of the direct services has been provided by untrained attendants, while the professionals have largely found shelter and status in administrative tasks” (pp. 213-214).

One leading expert, Dybwad (1969), relates this problem to the social structure of our institutions which he claims interferes very effectively with its main purpose. In other words, it is the institutional organization which is in the center of things rather than the residents.

The Sunland Training Center at Miami was established in December, 1965, to provide retarded persons with opportunities for growth through comprehensive residential and day services — diagnosis, evaluation, medical and...
health treatment, recreation, training, education, and habilitation. To enhance the effectiveness of the training and treatment programs, 38 homelike cottages were constructed. Each cottage houses 20 children, except the two nurseries, which accommodate 60 children each. The institution's facilities also include a shopping center, a chapel, two schools, a sheltered workshop, an infirmary, recreational facilities— gymnasium, swimming pool, ball field, picnic areas—a farm, a well-equipped diagnostic and evaluation clinic, and a day-care center for retarded children who live in the community. However, in spite of the institution's stated purposes and its modern facilities, in its early years Sunland was plagued by the problems identified. In 1967 it was well on the road to becoming a custodial institution.

In an effort to improve its programs, Sunland Training Center at Miami began an in-depth study of the institution's needs. As reported earlier (Cortazzo and Foshee, 1970), a significant deterrent to residential effectiveness was the traditional organizational structure based on the rationale of a large multi-purpose institution. Therefore, in order to improve the quality of residential services, the pre-existing department-centered and profession-centered organizational structure was replaced by four divisional intensive specialized treatment programs known now as the "Divisional Concept."

The implementation of the Divisional Concept was facilitated by a Hospital Improvement Grant from Social and Rehabilitation Services entitled, "Intensive Programming for Optimal Resident Development." The major goals of the project are: (1) to improve care, treatment, programs and services for the retarded at Sunland Training Center at Miami by developing major divisions of programs based on intensive treatment and program models rather than under the traditional social structure of institutions; (2) to better utilize and further develop the available man and mind power within a multi-purpose institution; (3) to measure the effects of intensive specialized treatment programs on the growth and development of retarded residents; (4) to compare empirically the effectiveness of the four divisional or intensive specialized treatment approach to the single, large multi-purpose facility; (5) to determine and demonstrate that divisions of intensive specialized treatment programs staffed with multi-disciplinary teams are appropriate models for modern effective programs; and (6) to make Sunland at Miami resident and program-centered rather than department and profession-centered.

This report deals with objectives (3) and (4), and the results to date.

This model is offered to administrators as one effective way for managing the large multi-purpose institution. One striking advantage of this model that will become apparent to administrators is that the resident is always the "center of things," and that the emphasis of all employees is on programming.
THE DIVISIONAL CONCEPT

Introduction

Public residential facilities for the retarded have been plagued typically by three major problems: overcrowding, understaffing, and under-financing (Kugel, 1969), in addition to those already mentioned. Nothing can be more disheartening to an administrator than to receive increased support—financial and staff—from the legislature only to discover that at the end of that year the returns or improvements in the institution were minimal and despairingly inappropriate. In succeeding years when additional improvements are made again with 'still greater disparity in the returns, the administrator is destined for disillusionment. Understandably, so will the legislature and the public become disenchanted. How much can be poured into institutions at the low rate of returns? How can greater returns and improvements be achieved for the dollar invested? Should not other approaches be tried, as advocated by Dunn?

A Time for Change

Dunn believes this is a most propitious time to do something about residential facilities for the retarded. It is his contention that a century of failure of the large, multi-purpose residential facilities is enough—the effectiveness of other approaches needs to be tested. He proposes that the efficacy of small special purpose facilities be examined as one alternative (Dunn, 1969). The obstacles and problems which had diminished the effectiveness of the Sunland Training Center at Miami (MSTC) programs and services were due largely to the fact that most of the adopted concepts, including the organizational structure and procedures, were taken from large multi-purpose residential facilities which were based on the decades from 1850-1900, rather than the present era which has been one of planning and action on behalf of the retarded.

Traditional Model

Thus, without a resource of successful residential paradigms to draw from, Miami Sunland Training Center formulated its basic table of organization and procedures on a modified version of the manner in which most large institutions were established. The various departments designated to carry out the objectives of care, treatment, education, recreation, training, rehabilitation and so on, were under four major sections: administration or business, resident care or cottage life, programs and services, and medical services. The table of organization is illustrated in Figure 1.

![Fig. 1](image-url)
Although the potential, functioning ability, behavior and subsequent program needs of residents are varied, each major department was responsible theoretically to provide specific services or programs to all the residents. This is the vertical model.

In spite of the fact that Miami Sunland Training Center has very positive stated purposes and modern facilities, this traditional institutional model made Miami Sunland Training Center department centered and, in some areas, even profession-centered rather than resident-and program-centered. Additional increases from the legislature created larger departments of cottage life, education and training, and medical, but very little subsequent improvements in programs.

It was noted that the programs and services were aimed at the higher intelligence level residents, while the profoundly retarded received not much more than custodial care. There was much competition among departments to obtain the higher level residents for the prime program time during the day. Of course, the stronger departments always won out.

A New Approach

To ameliorate the aforementioned shortcomings, Miami Sunland Training Center had to move away from these outmoded concepts. It would be impossible to plan and to implement modern meaningful programs and bind them to an antiquated model. An Ad Hoc Study Committee proposed the thesis that if Miami Sunland Training Center were to become an effective facility, it would be necessary to change its present departmental or vertical structure to at least four separate, but interrelated basic divisional and intensive specialized treatment programs to meet the residents' needs. The organizational structure of the major departments and various disciplines such as social work, psychology, education, recreation, nursing, and college life, had to be broken down and blended into meaningful interdisciplinary divisional teams; one to work completely in each of the divisions. Each division would be headed by a program director. The various professional team members would be responsible for their respective division program rather than to a specific department. Thus, in terms of meeting the program needs of all residents, there would emerge a horizontal organizational structure to replace the vertical one. In reality, the large multi-purpose institution would become a number of highly specialized institutions.

The Four Divisions

The four divisions (Cortazzo and Allen, 1971) are illustrated in Figure 2.
Each program division has an inter-disciplinary team consisting of the program director, psychologist, physician, social worker, cottage group shift supervisor, cottage parents and supervisors, recreation therapists, nurse, cottage training instructors, food service workers, in-service training instructors, and other related staff. There is also an advisory team which circulates on a “team round” basis to all four divisions. It is made up of the directors of the former major departments such as cottage life, psychology, social service, recreation and medical. The advisory team evaluates the progress in the implementation of the divisional concept, acts as a sounding board for proposals and ideas, consults as needed in program areas, and aids in solving problems. In addition to making rounds of each division once a week, the advisory team meets quarterly with all four divisional teams, along with the Superintendent, Business Officer, Plant Superintendent, and other key personnel. The purpose of these meetings is to discuss the overall status of the institution, especially as it relates to the stated goals and specific objectives of each division.

The Divisional Concept

The four horizontal planes in Figure 3 indicate the different divisional programs.

Theoretically, there are many intermediary program planes between divisions to the degree that residents grow and develop in a program plane horizontally, they reach a level for moving up or down vertically into other planes and/or another division appropriate to meet their needs. Vertical movement is utilized also for given periods of time for specific evaluations of residents.

Regardless of the division residents are in, they receive as much attention and emphasis in programs, although different in content as is deemed necessary. The principles underlying the divisional concept are: (1) every resident is programmed, (2) programming is made meaningful and coordinated over a 24-hour period for both in-cottage and outside the cottage settings, (3) programming is comprehensive in nature since the program decisions for a child are team prescriptions carried out by assigned team members in reasonable harmony, (4) the residents and
programs receive more frequent evaluations; and (5) parents of residents are involved more often in group and individual meetings. The divisional concept represents considerable development of training principles for programming within the cottages, especially in the Development and Training division, as well as for the other three divisions.

**Development and Training Division**

The D & T Division is for residents of all ages who are profoundly retarded, level -5, and still need to learn the very rudimentary activities of daily living, such as toilet training and self-feeding.

A wide variety of behavior shaping techniques have been developed which encompass the following: (1) self-feeding programs; (2) toilet training; (3) self-dressing; (4) purposeful self-locomotion; (5) communication (learning commands, gestures, making needs known, and elementary language); (6) brushing teeth; (7) clusters of appropriate behavior activities upon arising; (8) clusters of behavior activities around meal time and self-feeding; (9) clusters of behavior activities around bed time, toileting, bathing and brushing teeth; and (10) recreational and simple occupational activities.

**Independent Living Division**

The division is designed for residents who are at least 16 years of age and do not seem to have the potential for competitive employment. However, they can, with proper programs, become sheltered employees either in a community workshop or in an institution. Most of these individuals have been trained or have the potential for caring completely for their own self-help needs, such as dressing, feeding, and toileting, and can get by with minimal to medium amount of supervision in most daily activities. Many will return to the community later and live in a community group-living house for five or six retarded persons and work in a sheltered workshop or in an institution under supervision. This division has different training units to meet the diversified program needs and behavior of the residents. The five phases in this program are: (1) training in improving independent personal skills and personal adjustment; (2) training in useful cottage skills and cottage peer adjustment; (3) training in work skills and work adjustment; (4) training in community skills and community living adjustment; and (5) re-evaluation, placement and follow-up guidance.

**Education and Training Division**

The E & T Division serves residents up to 16 years of age who have the ability or potential to acquire through education and training those educational, personal communicational, social, occupational and vocational skills which will result in independence or semi-independence in adulthood. The units in this division include pre-school (3 to 7 years), primary (8 to 12 years), intermediate (10 to 13 years), and secondary (13 to 16 years) residents. The E & T Division emphasizes the development and use of language and motor skills in the tool subjects, social competency, occupational information, pre-vocational training, home economics, vocational guidance and some in-school work experience. If still in the institution beyond the age of sixteen, they can continue in this division, or, if necessary, be moved either to Independent Living or Vocational Rehabilitation Division, depending on their program needs.

**Vocational Rehabilitation Division**

To be eligible for the V. R. Division, residents must be at least sixteen years of age and have the potential for competitive employment in the community. They must be able to completely take care of their personal needs, and clean and maintain their rooms and cottages. There are two sections in this division. One is an intensive adjustment section for residents who have serious personal or social adjustment problems. The second is for those with
acceptable personal and social skills. Included in this division are four halfway houses located on campus. The phases in the program are: (1) Vocational and psychological evaluations of clients; (2) Individual resident rehabilitation plans; (3) Rehabilitation counseling; (4) Vocational and community orientation; (5) Initial on-campus vocational training; (6) Intensive on-campus work training; (7) Community work training and employment; and (8) Community placement and training.

Evaluation of the Project

An effort has been made to determine the effect of the divisional concept programs on the growth and development of the residents. In this evaluation, the residents have served as their own controls. The evaluation reveals their differences on first and second evaluations with the Miami Sunland Training Center version of the Adaptive Behavior Check List (ABCL). Moreover, control groups in two similar multi-purpose institutions — Ft. Myers and Marianna Sunland Training Centers — were similarly evaluated. ABCL comparisons were also made between the four Miami Sunland Training Center divisions and four hypothetically established divisions in the control groups from the two institutions mentioned.

Method

In August, 1969 each resident at Miami Sunland Training Center was assigned to one of four program divisions described above, based on recommendations of the cottage parents and supervisors. Each division had special programs designed to benefit its particular residents.

The proportion of residents in each division was: approximately 15% in V. R., 35% each in both E & T and I. L., and 15% in D & T. For each division the means and ranges for IQ and chronological age (CA) were obtained. Based on these values, a stratified random sample of 400 Ss was selected from two other state Sunland Training Centers, 200 from the Sunland Training Center at Ft. Myers (FSTC), and 200 from the Sunland Training Center at Marianna (MaSTC), the control groups. The IQs and CAs are presented in Table 1.

Table 1
Mean IQ and CA (in Months) of the Ss of the three STCs by assigned divisions

<table>
<thead>
<tr>
<th>Division</th>
<th>Miami</th>
<th>Ft. Myers</th>
<th>Marianna</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Ss</td>
<td>IQ</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40.7</td>
<td>251.5</td>
<td>34.0</td>
</tr>
<tr>
<td></td>
<td>34.0</td>
<td>223.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33.2</td>
<td>220.6</td>
<td></td>
</tr>
<tr>
<td>Vocational Rehabilitation</td>
<td>IQ</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>57.7</td>
<td>313.2</td>
<td>59.3</td>
</tr>
<tr>
<td></td>
<td>55.1</td>
<td>271.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>250.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>IQ</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42.0</td>
<td>153.3</td>
<td>28.4</td>
</tr>
<tr>
<td></td>
<td>32.0</td>
<td>149.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>147.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Living</td>
<td>IQ</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40.5</td>
<td>344.4</td>
<td>35.3</td>
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<tr>
<td></td>
<td>31.8</td>
<td>273.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>284.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development &amp; Training</td>
<td>IQ</td>
<td>CA</td>
<td></td>
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<tr>
<td></td>
<td>25.1</td>
<td>271.2</td>
<td>19.4</td>
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<tr>
<td></td>
<td>17.4</td>
<td>231.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>212.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Throughout the analysis of the data, means are given for each division separately and for all residents combined.

Following divisional assignment, the rating on the ABCL were completed for the Miami residents. The checklist was also filled in for the 400 residents by the appropriate personnel in the two control Sunland Training Cen-
tors at Ft. Myers and Marianna. During the year following the first rating, the residents at Miami Sunland Training Center were exposed to the programs and services of their respective divisions (the experimental population). The residents in the two other Sunland Training Centers continued to function within the traditional concept of institutional organization, taking advantage of all programs normally provided. It is important to note that the three institutions are staffed in a proportionately equal manner, i.e., the staff-to-resident ratio is similar for all State of Florida Sunland Training Centers. The H.I.P. grant provided no additional funds for extra cottage personnel. As such, it is the organization of the personnel and programs rather than the sheer number of staff members that serves as the independent variable.

One year later a second assessment with the ABCL was accomplished for the study populations in the three STCs. MSTC was able to obtain second evaluations for 666 of the 674 residents initially rated, FSTC yielded 190 of 200 re-evaluations, and MaSTC rerated 182 of the original 200 Ss. The data are based only on those Ss for whom both first and second evaluations could be obtained. In all cases, ratings on the ABCL were made by cottage parents, and where possible the second evaluator was the same individual who made the first rating.

The ABCL consists of 72 items, each of which provides three possible ratings. Three points were awarded for behavior indicative of the highest level of adaptive behavior, two points for behavior of some lesser adaptive value, while one point represents the poorest adaptation.

Details of the checklist items are available elsewhere (Allen, Cortazzo and Adamo, 1970). However, a factor analysis discloses that the ABCL encompasses three functional areas of adaptation: (1) the Basic Functions which include items #1 to 30 concerned with the daily elemental functions such as eating, dressing, and toileting; (2) the Primary Functions, items #31 to 46, covering communication skills, viz., following instructions, speech patterns, etc.; and (3) items #47 to 72, the Secondary Functions, describing social skills, sharing with others, responsibility, and perseverance. Each assessment with the checklist yielded four scores: (1) Total score, the sum for all 72 items, ranging from 72 to 216; (2) Basic score, varying between 30 and 90 points for the 30 items; (3) Primary score, the sum for the 16 items, between 16 and 48; and (4) Secondary score, consisting of from 26 to 78 points for the 26 items.

In attempting to provide control populations of approximately equivalent age and intelligence to each other and to the experimental group, the technique of stratified random sampling was used. After the results from the second evaluation were collected, the control Ss were assigned to one of the four divisions in the same proportion as the Ss in the MSTC divisions. As previously stated, the assignment of control Ss to division was based on IQ and CA criteria. Divisional assignments were hypothetical since neither control STC was organized to function within the divisional concept.

Despite attempts to match the Ss in the three institutions, complete success was not attained. The differences among the STCs may be seen in Table 1. For example, for all Ss analysis of variance indicated that MSTCs have a significantly higher mean IQ than either of the samples from Ft. Myers or Marianna. The L. L. Division mean CA at Miami is higher than at the control institutions. Similar differences exist in the other divisions. A possible explanation may be that all residents at Miami were involved in this study, while only 200 Ss each were chosen from their respective populations in the control STCs. Even though these control populations were stratified according to CA and IQ criteria, there may have been a tendency to exclude the very old and/or the very bright residents from the study groups. As a precaution against making unfair equations of samples with varying CA and/or IQ characteristics, no direct comparisons of the three STCs will be made; instead the progress of each STC's population will be assessed independently.

Results and Discussion

As previously mentioned, the results are analyzed in terms of whether or not there is a significant change in ABCL scores within each of the three institutions. Analysis of variance is used exclusively. All four dependent
measures (ABCL - Total, Basic, Primary, and Secondary scores) are examined and Ss viewed from both within their divisions and across all divisions.

Figure 4 presents the means of all Ss in each STC in the study. Figure 4A discloses that the Ss of the three institutions increased their ABCL Total scores over the year of the study. Analysis of variance for each center specifies that the three populations improved significantly ($p < .01$). This is to be expected since the Ss have had one more year experiencing and learning how to cope with living. The finding of a small but significant positive correlation of age with ABCL Total score would also adduce to a prediction of adaptive improvement over time.

The groups also show a significant increase in their Basic scores from first to second rating (see Figure 4B). Ft. Myers and Miami Ss improved moderately while the Marianna sample showed a significant mean increase of almost four points. This improvement is the result of an intensive program in self-help skills in progress during the year between the first and second evaluations. The dramatic betterment by this control population is quite impressive, but, at the same time there are drawbacks. MaSTC Ss failed to show significant increases in the Primary and Secondary ABCL scores. Figure 4C shows a small drop in score for the Primary measure.

Miami Ss showed significant ($p < .01$) improvement for both the Primary and Secondary scores (Figures 4C and 4D). The Ft. Myers group progressed significantly in the Secondary score, but not in the Primary. Thus, Miami Ss improved in the three functional areas, Ft. Myers Ss in two areas, and the Marianna sample in only one area. These findings suggest that MSTC has a more balanced program inclusive of a broad spectrum of teaching and learning adaptation experiences. The divisional concept provides programs and services which result in actual and potential improvement in the three functioning areas rather than in just basic activities of daily living. The effects of this broad program are further illustrated in the data of each division separately.
Vocational Rehabilitation

From Figure 5A it may be seen that only the Miami Total score showed significant (p < .05) gain for the Ss in this division.

![Graphs A and B showing mean scores for Miami, Ft. Myers, and Marianna for Total and Basic scores.](image)

This is important since these Ss have the best potential for leaving the institution. The fact of their having the highest IQs (see Table 1) may result in a ceiling ABCL score beyond which the checklist does not discriminate. Within the traditionally organized institution special programs for training residents of this caliber are usually the exception. The residents, therefore, may progress to a certain level (via the standard programs) and go no further because the programs are designed primarily for those with lesser capacities. Another variable leading to stagnation among these residents is the fact that they are generally well-behaved and cause no real problems for cottage parents, resulting in a "let well enough alone" attitude. The divisional structure provides programs aimed at just this type of resident.

Figure 5 presents means of four dependent measures for the V. R. division Ss only. The results justify the implementation of a specific type of program. Since Basic scores are so high for these Ss (80 of 90 possible points) further training in this area is probably not pressing. Emphasis on the Primary and Secondary skills would be a better investment. Schwartz & Couture (in press) also reached this conclusion. As such, the seeming lack of a noticeable increase of the mean Basic scores from the first to second assessments for the Miami Ss is expected in light of the significant increases in both Primary (p < .01) and Secondary (p < .06) scores, Figures SC and SD.

Ft. Myers Ss do not show significant improvements in any of the ABCL functional areas although the trend for the Secondary area (Figure 5D) is in the upward direction. Marianna Ss achieved significant (p < .06) growth on the Basic score, Figure 5B, undoubtedly as a result of the Center's intensive program. The data in Figures SC and SD suggest that this emphasis may be unduly restrictive for these Ss since there is no observable gain in either the Primary or Secondary functions wherein improvement is more directly related to possible community living. However, the growth in performance reflected by the Basic score is not to be dismissed for it is certainly indicative of an excellent program of training in the essential elements of daily life. Moreover, having reached this level of
success with basic activities the Ss are probably ready for experiences in Primary and perhaps Secondary functions. The divisional organization for the delivery of programs and services to the Miami residents appears to be providing such experiences for the V.R. population.

Education and Training

The distinctive personal feature of the Ss in this division is their age. They are, as a group, the youngest residents. Their mean IQs place them in the -3 and -4 levels. Because of their youth, these residents should be able to make a great deal of progress since their behavior is more malleable than that of the older residents.

Figure 6 presents the scores for the four dependent measures for the first and second evaluations. Figure 6A, Total scores, indicates that the Ss in the three institutions do show progress in growth. The Miami Ss' improvement is significant at the .01 level, Ft. Myers Ss approach significance (p < .10), and Marianna's slight gain is not significant.

The Basic scores in Figure 6B disclose the influence of the intensive self-care program at MaSTC. These Ss improved significantly (p < .01) on Basic items from the first to second evaluation. The other functional areas (Figure 6C and 6D) show no increase and even a slight drop for the Marianna Ss. The Miami E & T population increase in the Basic skills is highly significant (p < .01). In addition, the Miami group evidences movement in the upward direction in both the Primary and Secondary scores, although only the Secondary score approaches significance (p < .06). The Ft. Myers group made modest improvement in all three functional areas. None of these gains were significant when the data were subjected to an analysis of variance.
One of the important aspects for progress in training STC residents such as those in the E & T Division is to take advantage of their having acquired the self-help skills evaluated by the Basic items of the ABCL. The divisional concept is geared to provide programs which involve training in these skills. It seems, too, that the self-help programs at the Marianna Sunland Training Center is quite advantageous for its residents.

The fact that the Miami Ss improved in the three functional areas measured by the ABCL supports the balanced program provided through the divisional mode of delivering programs and services to these retardates.

**Independent Living**

As with the E & T Division, age is the unique characteristic of the Ss in the I. L. Division. While the E & T Ss are 17 years of age and younger, the I. L. residents are all above 17. Table 1 presents the mean age and IQ of the I. L. residents in the three STCs. The control Ss from both Ft. Myers and Marianna STCs are about four or five years younger than the Miami I. L. residents. Analysis of variance proves this difference to be significant at the .01 level. Since they are younger, these Ss may have had more potential for improvement, thus making a direct comparison with the Miami group difficult to support.

![Graphs A, B, C, D](Fig. 7)

The three institutions exhibited significant Total score improvements from the first to second evaluation (p < .01) for Ft. Myers and Marianna; (p < .05) for Miami; Figure 7A graphically presents these advances. The steeper slopes for the control institution Ss indicate that they made greater progress than the Miami group. Such a difference may be the result of the age differences discussed earlier.

The significant (p < .01) improvement on the Basic items by both the Ft. Myers and Marianna sample populations may be seen in Figure 7B. The lack of forward progress by the Miami Ss may again have been due to the older age of Miami's I. L. residents and their being less amenable to change in their personal habits.
Figures 7C and 7D disclose the changes in Primary and Secondary scores, respectively. The Miami group improved significantly in both scores ($p < .05$) for Primary and ($p < .01$) for Secondary while the controls failed to show significant increase on the Primary score. The special divisional program for Miami's I. L. residents emphasizes these two functional areas and this is reflected in the higher scores. However, both control groups attained significantly better scores on re-evaluation for the Secondary functions. These data suggest that Ss may be more amenable to learning social behavior than communication skills assessed by the Primary portion of the ABCL. The significant gain by Miami Ss in the Primary score suggests that perhaps with proper programming and intensive exposure to appropriate experiences these residents can make advances in communication skills.

**Development and Training**

As may be seen in Table 1, the residents of the D & T Division have the lowest mean IQ of the four divisions. The vast majority of the Ss in this division are at the -4 and -5 levels. They constitute the custodial cases in most institutions and need almost constant attention and assistance. Many of these residents require help in dressing, eating, and some with toileting.

Based on the preceding description of these residents, it is almost imperative to focus on improving their self-care skills. Since the Basic function items measure just such skills, an increase in the score for D & T residents is important.

Figure 8B shows that both Miami and Marianna STC groups increased significantly at the $p < .01$ and $p < .05$ levels respectively from first to second evaluations. Evidently the intensive program at Marianna is functionally relevant and may be credited for the improvement assessed by the Basic items. The data seem to reflect a similarity in the basic training program objectives at Miami and Marianna STCs.
Among the D & T residents there is room for a great deal of progress in Basic functions. Until sufficient skill is achieved it may be necessary to be less demanding of the Primary and Secondary functions. The relatively lower Basic score by the Ft. Myers sample is puzzling and disturbing; puzzling in the sense that some improvement in basic functions usually comes about with the passage of time alone; and disturbing because residents earning such low rating cannot afford to deteriorate.

Ft. Myers Ss do exhibit growth trends in both Primary and Secondary scores. Such increments, however, proved not to be statistically significant. The declines in Primary scores shown by both the Miami and Marianna samples were not significant nor were the modest increments in Secondary scores.

Since the Basic functional area is of considerable importance for these Ss, programs for them should deal with these items. Yet, the Ft. Myers Ss have shown that these Ss can move upward in both Primary and Secondary functioning. It would seem that with an ideal program, such Ss should be able to move forward in all three functional areas, a feat which none of these three STCs has executed successfully.

Conclusion

This two-year study highlights the fact that as a group the mentally retarded in state institutions do learn with the passage of time and exposure to experiences. The real question is whether this progress may be enhanced by means of one, another, or a combination of modes for the delivery of programs and services to the retardate.

The point to this study is the greater effectiveness of the traditional (or vertical) versus the divisional (or horizontal) organizational structure for such delivery. The philosophy seems to favor the latter approach. The findings of this investigation also support the divisional concept as a generally more efficient framework within which personal, social and real or potential vocational progress may be expected. Equally significant is the collateral finding that the cottage personnel reacted favorable to this model for improved programming and servicing the Miami Sunland Training Center resident (Allen, Cortazzo and Schwartz, in press).
References


Allen, R. M., Cortazzo, A. D., and Schwartz, B. J. Attitudinal Survey of a Hospital Improvement Project at Work, Mental Retardation, in press.


Cortazzo, A. D. and Allen, R. M. The Role of the Psychologist in the New Divisional Concept, Mental Retardation, in press.


Footnotes

1. Arnold D. Cortazzo, Ed.D., is Superintendent of the Miami Sunland Training Center, Adjunct Associate Professor of Education and Psychology at the University of Miami, and Assistant Professor of Special Education at Barry College. Copies of the ABCL available from A. D. Cortazzo, Ed.D., Superintendent of Miami STC., Box 678, Opa Locka, Fla. 33054.

Barry J. Schwartz, B.A., M.S., is a psychology doctoral student at the University of Miami and computer programming consultant to the Miami Sunland Training Center.

Robert M. Allen, Ph.D., is Professor of Psychology and Pediatrics at the University of Miami and Psychology Consultant to the Miami Sunland Training Center.

Drs. Allen and Cortazzo are co-authors of Psychosocial and Educational Aspects and Problems of Mental Retardation and with Dr. R. P. Toister co-editors of The Role of Genetics in Mental Retardation.

2. Hospital Improvement Grant No. 1-R20 02149-01 made this entire study possible.

3. In this experimental paradigm the extent of progress or improvement is derived from score differences, differences between the first and second evaluations of each subject. Moreover, as will be noted, two other STCs utilizing the vertical organizational structure are sampled as hypothetical, as close as possible control subjects.

4. It might be borne in mind that equality of human subjects for all parameters is a non-attainable desideratum even within a laboratory setting. How much less feasible is it in a real life situation involving the intellectually, personally and socially handicapped population?