

Data-Based Research in Therapeutic Recreation: State of the Art

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Abstract:

During difficult financial times, it is critical not only to evaluate therapeutic recreation programs and document client progress but also to disseminate objective program data to therapeutic recreation and other practitioners. The purpose of this state-of-the-art research inquiry was to provide the therapeutic recreation discipline and other related helping professions with an accurate and current assessment of empirically based research concerning the provision of recreation for special populations.

Eight professional journals in recreation, special education, and psychology from 1977 (the year of PL 94-142) through the current literature were reviewed. Articles using a data-based research methodology in the area of recreation/leisure for special populations were identified. Articles were analyzed according to target population, subject age, purpose of study, and research design. Of the 83 data-based research reports found, 40 studies addressed the mentally retarded population, 26 involved children (birth to 13 years), and the case study (23) and survey (23) research designs were most prevalent. A plea for future data-based research by therapeutic recreation professionals to improve services is made.

KEY WORDS: Research, Evaluation, Data-based, Empirical Investigations, Methodology

Article:

The purpose of therapeutic recreation is to facilitate the development, maintenance, and expression of an appropriate leisure lifestyle for individuals with physical, mental, emotional, or social limitations (Meyer 1981; NTRS 1982). Since its inception in 1966, therapeutic recreation has helped meet the needs of disabled persons in hospitals, nursing homes, community recreation centers, day achievement centers, group homes, state institutions, and schools.

We are currently in a time characterized by budget cuts, program eliminations, personnel layoffs, and, generally, a severe financial crisis. Concurrent with increasing societal awareness of the independent living and leisure needs of all disabled persons is the diminution of adequate therapeutic recreation services. A call for objective evaluation and economic justification of existing programs, especially in the human services area, is necessary to reverse this trend. Program costs in relation to participant benefits accrued has entered the lime-light as an essential responsibility of therapeutic recreation service providers. Action research, focusing on the application and evaluation of an immediate program/problem, whose findings can be evaluated in terms of local applicability (Best 1977), must assume a significant role in the provision of therapeutic recreation practice.

Traditionally, the profession has placed great emphasis on attendance figures, progress notes of an anecdotal nature, and expressed reactions (e.g., smiles) to determine the successes (and failures) of our programs and services and to justify their existence. Typical "excuses" for not objectively evaluating program goals and becoming accountable for therapeutic recreation services have included: recreation deals with adaptive and internal feelings and behavior and is difficult to measure; recreation is more of an art than a science; professionals lack training in program evaluation and client assessment; and dependence on untrained volunteers (Theobald 1979).

However, the 1970s and 1980s have brought a dramatic shift in our methods and requirements for program evaluation. The therapeutic recreation profession has entered the "decade of accountability," prepared or not. Accountability is a concept that is here; no longer can we count heads and report anecdotally to our administrators and funding sources as a rationale for the continuance of sparse funds and staff. In addition to planning and implementing programs, therapeutic recreation services must be responsible for the continued evaluation of recreational situations and outcomes and make required, ongoing revisions and modifications to guarantee continued relevancy and practicality (i.e., the accountability process).

Rationale and Legislative Support

Documentation of program successes, by providing data on cost-effectiveness, will become a common concern of the therapeutic recreation specialist. In addition, client progress—including the acquisition, generalization, and maintenance of skills, the reduction of inappropriate and interfering behaviors, and successful integration of disabled persons into community settings—must be addressed. If we are going to be accountable, it is mandatory that tools to determine what we must be accountable for and methods for ascertaining the extent to which program goals and objectives are met be identified and developed. It is not only imperative to document the benefits accrued through recreation participation to our immediate directors, but it is equally important to disseminate these objective data to professionals in our own and allied fields (e.g., special educators, occupational therapists).

Purpose

In order to make changes in the lives of disabled persons in accordance with their leisure needs, purposeful intervention must transpire. Therapeutic recreation specialists and special educators have used several approaches in undertaking planned intervention to achieve change. One of the most effective ways to approach useful intervention is through research. Research findings must be applicable to programming and operational settings to initiate change. Researchers must be aware of the avenues for dissemination of results, and practitioners must be cognizant of the systems that include the type of research information they require in their programs.

The overall goal of this research inquiry was to provide the therapeutic recreation discipline and other related helping professions with an accurate and current assessment of data-based research concerning the provision of recreation for special populations. Second, it was conducted to identify gaps in the research and to provide recommendations for future research endeavors to expand the body of knowledge and, ultimately, improve therapeutic recreation service delivery to disabled persons.

Methodology

Eight journals were selected for review based on an informal survey of recreation professionals and special educators interested in and/or having conducted research in the area of leisure services for special populations. The eight journals most often cited as valuable sources of current research in the therapeutic recreation discipline included: *Education and Training of the Mentally Retarded*, *Journal of Applied Behavior Analysis*, *Journal of the Association for the Severely Handicapped* (formerly *AAESPH Review*), *Journal of Leisurability*, *Journal of Leisure Research*, *Leisure Sciences*, *Mental Retardation*, and *Therapeutic Recreation Journal*.

Research reports published in these journals during the past six years (1977-1982) were analyzed. First quarter 1983 publications published at the time of this review were included. Implementation of Public Law 94-142 in 1977 provided the impetus for commencing the literature search in that year. By specifying recreation as a related service, Public Law 94-142 prompted scientific investigation in the area of leisure services for special populations. The need for documentation of the value of leisure services to achieve accountability, improve services, and solicit dwindling funds has had a positive impact on therapeutic recreation research since the implementation of the Public Law.

Research reports selected for inclusion in this survey met three predetermined criteria: (1) the articles used a data-based research methodology; (2) subjects included members of special population groups; and (3) the

study investigated aspects of leisure/recreation. Only journal articles directly involving special population members as subjects were included in the investigation. This eliminated studies regarding staffing, and state-of-the-art reviews of existing programs and available research. Parameters of this systematic search and review of the research literature included: the target population, age of subjects, purpose of study, and research design used. The entire gamut of special population groups was considered in this analysis. However, only those populations (e.g., mental illness) cited in the available research were reported.

For purposes of classification, subject ages were divided into five groups: child (birth to 13), youth (14 to 21; since PL 94-142 ensures education through age 21); adult (22 to 54), and older adults (55 and older). Studies involving more than one prominent age group were listed under multiple age groups.

To facilitate reporting and analyzing the results, research purposes were categorized into six areas. Research purposes with their major foci included: (1) leisure needs, preferences, patterns and attitudes; (2) effects/values of recreation (consequences and benefits accrued through recreation participation); (3) community integration (studies involving mainstreaming, normalization, accessibility and peer acceptance); (4) skill acquisition (mastery of a leisure skill or activity as the major emphasis); (5) teaching methods/strategies (document and/or examine the effectiveness of instructional procedures); and (6) programming (development and evaluation of programs).

Only research designs used in the studies identified were included in the results. ABAB reversal, multi-element, and multiple-baseline single subject designs, case study, correlational, survey, and true experimental comprise the seven categories of research designs.

Results

A total of 83 articles reported data-based research in the area of leisure/ recreation for special populations. The articles were analyzed according to subject age, target population, purpose of the study, and research design. The results are presented in Tables 1-4.

Table 1.
Frequency and Percent Distribution of Special Populations

Special Population	Frequency	Percentage
Mentally retarded	40	43
Multihandicapped	14	15
Physically disabled	12	13
Elderly	10	11
Mentally ill	6	7
Emotionally disturbed	4	4
Learning disabled	1	1
Chemical abusers	1	1
Corrections	1	1
Blind	1	1
Cancer patients	1	1
Cerebral palsy	1	1
Variety	1	1
Total	93	100

If a study involved more than one special population, each population group (e.g., mental retardation and physical disability) was listed separately when compiling the data. This recording procedure accounts for the discrepancy between the cumulative number of special populations cited in Table 1 (93) and the total number of research reports identified (83). In contrast to the mentally retarded population, which was involved in 40 studies, half of all the target populations identified were involved in only one study.

In review of Table 2, it can be observed that the percentage of studies involving children and adults were approximately equal (i.e., 31 percent and 30 percent, respectively). Articles involving youth and older adults were

also similar (i.e., 17 percent and 13 percent, respectively), 'but constituted about half the frequency of the research involving children and adults.

Table 2.
Frequency and Percent Distribution of Subject Ages

Subject Age	Frequency	Percentage
Child (Birth to 13 Years)	26	31
Youth (14 to 21 Years)	14	17
Adult (22 to 54 Years)	25	30
Older Adults (55 Years and Older)	11	13
Multiple Age Groups	7	9
Total	83	100

As reported in Table 3, the research designs most utilized in the therapeutic recreation research literature were the survey and the case study; each comprised 28 percent of the total studies. According to Table 3, 52 percent of the reports using the survey method studied leisure needs, preferences, patterns, and attitudes. These 12 studies comprised 14 percent of the total number of research reports, being the largest single correlation between research design and study purpose. Community integration was another area researched heavily by the survey method, comprising 30 percent of the studies using the survey methodology and 8 percent of the total studies. Case studies were more evenly distributed among four areas of study purposes, including effects and values of recreation, community integration, skill acquisition, and teaching methods/strategies. Correlational and multi-element designs were the least used, making up only 6 percent and 1 percent of the total studies, respectively.

Table 3.
Research Design in Relation to Study Purpose

	Leisure Needs, Preferences, Patterns, and Attitudes	Effects/ Values of Recreation	Community Integration	Skill Acquisition	Teaching Methods/ Strategies	Programming	Total Percentage
Survey	12	3	7	—	1	—	23 (28%)
Case Study	1	5	5	6	5	1	23 (28%)
Multiple-baseline	—	1	3	4	4	—	12 (14%)
True experimental	2	4	1	—	1	2	10 (12%)
ABAB reversal	3	2	1	2	1	—	9 (11%)
Correlational	3	2	—	—	—	—	5 (6%)
Multi-element	1	—	—	—	—	—	1 (1%)
Total Percentage	22 (27%)	17 (20.5%)	17 (20.5%)	12 (14%)	12 (14%)	3 (4%)	83 (100%)

The paucity of published research concerning the development and evaluation of leisure programs (i.e., programming) was evident upon examination of Table 3. Only three studies addressed this area. These studies were published in 1981 and 1982, possible evidence of a potential trend of further empirical investigation in this area.

In correlating research purpose and subject age, although not reported in table format, it was observed that 64 percent of the studies involving older adults (55 years and older) focused on leisure needs, preferences, patterns, and attitudes, and 27 percent focused on effects/values of recreation. Adults (22-54 years) had a more even distribution focusing on leisure needs, preferences, patterns, and attitudes (31 percent), skill acquisition (27

percent), community integration (23 percent), and effects and values of recreation (15 percent). Research purposes for youth (1421 years) were distributed among teaching methods/strategies (31 percent), effects/values of recreation (23 percent), and skill acquisition (23 percent). Purposes for children (birth to 13 years) included: teaching methods/strategies (27 percent), effects/values of recreation (23 percent), community integration (23 percent) and leisure needs, preferences, patterns, and attitudes (15 percent). Multiple age group studies focused primarily on community integration (43 percent) and leisure needs, preferences, patterns, and attitudes (29 percent).

Table 4.
Special Population in Relation to Study Purpose

Special Population	Leisure Needs, Preferences, Patterns, and Attitudes	Effects/ Values of of Recreation	Community Integration	Skill Acquisition	Teaching Methods/ Strategies	Programming
Mentally retarded	8	5	9	10	7	1
Multihandicapped	2	3	4	3	2	—
Physically disabled	2	2	5	—	2	1
Elderly	7	2	—	—	—	1
Mentally ill	2	2	2	—	—	—
Emotionally disturbed	—	3	—	—	1	—
Learning disabled	—	1	—	—	—	—
Chemical abusers	1	—	—	—	—	—
Corrections	1	—	—	—	—	—
Blind	—	—	1	—	—	—
Cancer patients	1	—	—	—	—	—
Cerebral palsy	—	—	—	—	—	1
Variety	—	—	1	—	—	—
Total	24	18	22	13	12	4

Table 4 indicated a very uneven distribution in the relationship between special population subjects and study purposes. This is due for the most part to the heavy research emphasis on mental retardation. Forty-eight percent, or 40 of the 83, research reports analyzed in this study involved mentally retarded subjects. Considering that 12 of 14 studies involving the multihandicapped target population also involved mentally retarded subjects, an overwhelming 63 percent, or 52 of the studies surveyed, were conducted with the mentally retarded population.

For each study purpose area (e.g., effects/values of recreation), mental retardation was the most frequently used special population. Skill acquisition studies, noticeably lacking for all populations except the mentally retarded and multihandicapped, comprised the greatest amount of research conducted with mentally retarded persons (25 percent). Eighty-two percent, or 18 of the 22 community integration studies, focused on the mentally retarded, multihandicapped, and physically disabled populations. Half, or 9 of these studies, used mentally retarded persons exclusively.

Seventy percent of the studies involving the elderly population focused on leisure needs, preferences, patterns, and attitudes. Research involving physically disabled individuals concentrated on community integration, which accounted for 42 percent of the studies with this population. Studies with multi-handicapped persons were more evenly distributed across all research purpose areas except programming, which was nonexistent.

Although not reported in the tables, analyses of research designs and purposes in relation to the year published were also conducted to identify possible trends in the literature. Eight of the 10 research studies using the true experimental design were published during 1980 or later. Use of the multiple-baseline design was slightly greater during and after 1980 (7 after as opposed to 5 prior). The one research report using the multi-element

single subject design was published in 1977. Otherwise, the distribution of research designs was fairly consistent throughout the six years investigated.

Reports studying leisure needs, preferences, patterns and attitudes, skill acquisition, and teaching methods/strategies slightly increased during the latter half of this analysis (i.e., 1980-1982). Effects/values of recreation and community integration studies slightly decreased during this time. As noted earlier, the three studies investigating the development and evaluation of leisure programs were recently published, suggesting a growing interest in research in this area. Other than this potential trend, no significant research directions were observed.

Discussion

Only since the 1960s have opportunities existed for members of special populations to participate in recreation/leisure activities and programs. Not until the early 1960s (i.e., Vocational Rehabilitation Act) did the federal government recognize the potential values of recreation participation in the lives of all citizens, including persons with disabilities. At that time, recreation for the ill and handicapped was added to the list of disciplines for specific training funds. A few years later, Title V of Public Law 90-170 incorporated research and training in physical education and recreation for mentally retarded and other handicapped children into the act. As a result of this new funding source, therapeutic recreation degree programs at universities and the authorization of recreation services in training and research rapidly multiplied.

Public Law 94-142, the Education for All Handicapped Children Act, committed the federal government to provide a substantial amount of monies for research projects and the development of model programs related to service delivery. Research support and the training of thousands of individuals in therapeutic recreation has had a significant impact on recreation related research during the last decade, resulting in an influx of research concerning the impact of leisure services on disabled persons of all ages.

Many professionals in therapeutic recreation have offered the excuse that the interaction between recreation for disabled persons and data-based programming/research is a novel one, and as a consequence, a severe paucity of valid research pursuits in the discipline exists. While the amount of experimental research in the recreation literature appears to be steadily increasing (Reynolds 1981), the therapeutic recreation discipline has not benefited from any systematic research efforts. This is due to the lack of cooperative effort and effective communication between the researcher and the practitioner. The following section summarizes the gaps in knowledge and points to new programming directions in therapeutic recreation.

It has been argued that participation in leisure/recreation activities has a specific impact on the growth, development, education, and rehabilitation of disabled persons. As in any area of social or educational research, it is difficult to support these theories empirically with any degree of accuracy. Therapeutic recreation professionals must continue their comprehensive efforts to evaluate the impact of recreation programs in order to verify the importance of this relatively new programming discipline in the rehabilitation/educational arena.

Although a number of empirical studies have been performed in therapeutic recreation, these investigations were lacking in scope. The gaps in knowledge of critical issues identified included: (1) empirical documentation of the effects and values of recreation as it relates to the entire gamut of special populations, with a special emphasis on children with learning disabilities, the mentally ill, the elderly, and the hearing impaired (current research nonexistent); (2) behavior/skill development in other curricular domains (e.g., vocational) as a result of recreation participation, especially during difficult economic times when administrators are unprepared to continue to fund programs on the basis of leisure and social skill development alone; (3) the quality and effects of community leisure services on leisure patterns and lifestyles of special populations, including strategies to enhance participation by special populations in existing municipal programs; research investigations on youth at the secondary-age level who will shortly terminate their educational careers and reside in the community is also warranted; and (4) instructional strategies related to leisure skill acquisition, generalization, and maintenance for the severely disabled individual.

Conclusion

O'Morrow (1980) claimed that no profession can grow in stature and survive unless it can successfully evaluate its own particular contribution, in other words, conducting disciplined research. Wiederholt (1976) suggested that experimental research designs be used and called for a shift away from ex post facto research in special education, making it possible for other researchers and instructors to replicate studies with equivalent results. Anderson (1976) determined that experimental research designs, in combination with more stringently defined research groups, should provide the necessary answers to the questions regarding the efficacy of various instructional methods. Cohen's (1976) comments concerning the necessity of experimental research are applicable to the therapeutic recreation profession:

It never occurred to me that rigor and scientific excellence are solely the properties of experimental designs. Or that ex post facto research is illegitimate, or unscientific. My argument is based on need and value. Ex post facto research can be as rigorous as experimental research. The issue is that for replicability and applicability we need more experimental types of designs.

In order to have an impact on the lives of disabled persons in accordance with their recreation/leisure needs, effective service delivery and purposeful intervention must occur. One of the most efficient ways to study planned intervention is through empirical research. Only in this manner will required changes in leisure programs and instructional techniques occur, to ultimately expand the body of knowledge and improve therapeutic recreation service delivery to members of special populations.

References

- Anderson, D., "Pruning the Fuzziness and Flab from Learning Disabilities Research," *JOURNAL OF SPECIAL EDUCATION*, (10), 2:157-161, 1976.
- Best, J., *RESEARCH IN EDUCATION*, Englewood Cliffs, NJ: Prentice-Hall, Inc., 1977.
- Cohen, S., "The Last Word," *JOURNAL OF SPECIAL EDUCATION*, (10), 2:167-170, 1976.
- Meyer, L., "Three Philosophical Positions of Therapeutic Recreation and Their Implications for Professionalization and NTRS/ NRPA," *THERAPEUTIC RECREATION JOURNAL*, (15), 2:7-16, 1981.
- National Therapeutic Recreation Society, "Philosophical Position Statement of the National Therapeutic Recreation Society," Alexandria, VA: National Recreation and Park Association, 1982.
- O'Morrow, G., *THERAPEUTIC RECREATION: A HELPING PROFESSION*, Reston, VA: Reston Publishing Company, 1980.
- Reynolds, R., "Normalization: A Guide to Leisure Skills Programming for Handicapped Individuals," In P. Wehman and S. Schleien (Eds.), *LEISURE PROGRAMS FOR HANDICAPPED PERSONS: ADAPTATIONS, TECHNIQUES, AND CURRICULUM*, Baltimore: University Park Press, 1981.
- Theobald, W., *EVALUATION OF RECREATION AND PARK PROGRAMS*, New York: John Wiley & Sons, 1979.
- Wiederholt, J., "Learning Disability Research in Special Education," *JOURNAL OF SPECIAL EDUCATION*, (10), 2:127-128, 1976.