The Behavior Analyst Today
A Context for Science with a Commitment to Behavior Change
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Hi There! A Message from Founder and Co-editor, Joseph Cautilli, M.Ed., M.Ed., CBA

I remember the morning of May 30th, 1999 well... I was in Chicago attending the 25th Annual convention for the International Association for Behavior Analysis... and I received some frightening information: I had been elected editor of the Clinical Behavior Analyst, the newsletter of the special interest group (SIG) by the same name. This information was particularly frightening because I had never put out a newsletter before and now I was on the hook to put out three this year.

Yes, three. The first newsletter is for the Association for the Advancement of Behavior Therapy (AABT). I had recently initiated a SIG that grew pretty quickly. This group, the Behavior Analysis Special Interest Group (BASIG), has as it's mission to provide a concentrated behavior analytic voice among voices which are more cognitive and structural. We intend to emphasize functionalism and behavioral approaches to verbal behavior. As well, we hope to highlight the importance of conducting research from a strong theoretical base, sometimes lost in the ebb and flow of blind empiricism. Some areas of interest that will be reflected in this newsletter include Clinical Behavior Analysis, Behavioral Models of Child Development, Community-based behavior analytic interventions, and Behavioral Philosophy. With the help of my co-editor, Beth Rosenwasser (iBRosie@aol.com), Craig Allen Thomas, David Reitman, John Forsyth (forsyth@csc.albany.edu), and Duane Lundervold (dlunderv@utep.edu), I began to envision a newsletter that would interest the members of both SIG's.

I was on the hook for yet one more newsletter. This time for an important or-

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Hi There!
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ganization fostering the credentialing of behavior analysts in the state of Pennsylvania. Like Florida, California, and soon New York, my keystone state of Pennsylvania has begun to credential behavior analysts and has suggested such a credential for hiring into the position of "behavior specialist" in its Behavioral Rehabilitation Program for Children and Adolescents. In addition, many in the Intermediate Units (IU's) were in the process of pursuing certification largely to meet the needs of children with Autism spectrum disorder and language delays. This was to be a very different newsletter. The goal of the newsletter was to help credentialed behavior analysts maintain contact and to let providers and the state know that behavior analysts are in the community and that we have a lot to offer. Fran Warkomski (fwarkoms@cisc.k12.pa.us), from the Bureau of Special Education's Instructional Support System, played an incredible role in bringing credentialing to PA and is a big supporter of empirically supported behavior analytic interventions. I remember talking to her and letting her know that the newsletter was designed, in part, to demonstrate that those of us in the BA community were committed to more than just Autism. BA also offers much in areas such as: Schizophrenia, disruptive disorders, and redesigning social service organizations and service delivery models in the state. I then asked my colleague at Devereux, Michael Weinberg to help. He contacted Fran and attempted to revive the efforts to build a state chapter of behavior analysis. He also led the way in contacting Dave Feeney (DistanceEd@aol.com), head of distance learning and the behavior2000 list serve (BEHAVIOR 2000-request@LISTSERV. TEMPLE.EDU) at Temple University about building a web page for the newsletter. Only time will tell if these and other endeavors will be successful in getting our message out.

Well back to the convention. With the friendly encouragement I received from Robert Hawkins, Kelly Wilson, Chauncy Parker, and others, I began to think: I can do this! After all, with the help of my friend, Craig Allen Thomas, (cthomas@tclc.com), we succeeded in getting together a list serve for the child behavior therapy SIG (AABT). The list is up and running. To subscribe, send a message to majordomo@listmail.tclc.com and in the body of the message you must write: Subscribe childbehave [your_email@ email.com]. Substitute your information for items contained in the [ ] and bang you are subscribed.

Despite all this enthusiasm, by mid-July, I became less optimistic that I could complete three separate newsletters. I sent a letter to all those involved and asked if I could combine the three newsletters. Several were concerned that this process might lose the individual identity of each group but they agree this would be best at this point. In particular the clinical behavior analysis SIG (CBA-SIG) is very special in its mission. The CBA-SIG is devoted to the study of comprehensive behavior analytic adult outpatient treatments, such as Functional Analytic Psychotherapy (FAP- ala Robert Kohlenberg and Mavis Tsai) and Acceptance and Commitment Therapy (ACT- ala Steven Hayes). It focuses on topics such as the therapeutic relationship, areas of traditional psychotherapy (i.e., personality disorders), and placed a much greater importance on stimulus equivalence phenomena and verbal relations. As I spoke to the president of CBA-SIG- Erik Augustson, (august@gw5. uabmc.edu), about his concerns, we decided that a special section of this newsletter would be devoted to this purpose. Readers will find two articles on CBA topics: 1) behavior analytic conceptualizations of chronic pain and its management, and 2) a professional article on challenges for the field.

Well that's my story and I am sticking to it! What ensues is the work that was generated by this new and exciting process. Most of the correspondence for this work occurred by e-mail; it always amazes me about how the world functioned prior to the internet. Indeed many of the people that have been part of this project, were people that were met on Joseph J. Plaud's (plaud@behavior.org) Listserve, Behav-An (www.virtual commu-

nity.org:8080/~behav-an).

The internet has convinced me that BA can form exciting new partnership with those around us. These partnerships can further our science but more importantly better our community. Toward this aim, we need to move past the paranoia of dealing with other, sometimes foreign communities and towards more understanding and dialogue. People may have different beliefs and different ways of doing things, but it is poor business practice to see their ways as wrong and ours as right. All three organizations served by this newsletter share the common goal of bridge building.

In addition to the clinical behavior analysis contributions, we offer information on the state of behavior analyst credentialing in PA and available national reciprocity-- relevant to behavior analysts around the country, and a primer on an area of behavior analysis that some may not be aware of: organizational behavior management. We welcome contributing articles. Feel to contact Beth Rosenwasser (iBRosie@aol.com) or myself (jcautill@astro.temple.edu) with any ideas or drafts. As a new forum, we are particularly open to new ideas and requests for coverage of topics or special sections. We hope this newsletter can become a dialogue; we welcome your come your letters to the editors and promise to respond any and all inquiries.

In closing, this newsletter represents the work of all stated above and some not stated like Alyson Miller (alymiller@msn.com) who offered to take on the laborious task of laying out the newsletter and in particular, represents the concentrated efforts of myself and my co-editor, Beth Rosenwasser. I would especially like to thank Beth to whom I am deeply indebted for sticking through this process with me.

Joe Cautilli

A Letter from John Lutzker, Ph.D.

Dear Colleagues,

The Behavior Therapist has the current issue of the nomination ballot from AABT. I am requesting that you might take a minute from your busy schedule to nominate me for President. I have been an active member of AABT since 1973. As you may know, I have previously served as Editor of the Behavior Therapist and Convention Program Chair. I am now entering the last year of my term as an elected Member-at-Large on the Board of Directors. I believe that the current Board has set a very good course for the organization, and I would like to help keep that course. Thanks so much for your nomination.

I believe that it would be presumptuous of me to have a lengthier statement at this time. Should I be nominated, I will, of course, be required to write a statement. In doing so, I will consult with the Women's Issues SIG. FYI, in 1993-1994, I chaired the Presidential Advisory Group on Diversity for the Association for Behavior Analysis. You can count on my ear to the SIG in running for and, hopefully, serving as President of AABT. Please contact me at jlutzker@ earthlink.com if you have any questions.

The editors would like to take this time to thank Craig Allen Thomas for providing the printing opportunities for this first issue of *The Behavior Analyst Today*.

The Curse of Exciting Times: Current Challenges Within the Field of Clinical Behavior Analysis

Erik Auguston, Ph.D., *University of Alabama at Birmingham School of Medicine*

There is an old Chinese curse that says "may you live in exciting times" and we as clinical psychologists are certainly living in exciting times these days. Most of us are aware of the increasing pressure community-based clinical psychologists are experiencing, although we are not necessarily sensitive to the impact this pressure is having on those practitioners or on our field. In large part, many of the changes and challenges we are facing are byproducts of the increasing financial limitations and time restrictions being place on community-based clinical psychologists and it has become apparent that there are a number of changes ahead that will greatly impact the field as we know it.

Clinical behavior analysis has much to contribute to the field. On a fundamental level, we have the strength of an empirically grounded theory and a lengthy history of research demonstrating effective clinical work. Additionally, our historical roots in pragmatism allow for the adaptation and integration of techniques from other branches of clinical psychology, not traditionally seen as "behavioral." We will need to be aware of the current context, however, if we are to effectively participate in the transition clinical psychology is undergoing. In addition, there are number of obstacles which make it difficult for CBA to be a part of this process; some of the variables controlling these trends are in our hands.

First there is our isolation from other branches of psychology. We need to spend more time talking to clinical psychologists from alternative theoretical orientations. This is true for both academic psychologists and clinical behavior analysts. I work in a department of anesthesiology, a somewhat unusual setting for a clinical psychologists, and my various roles in the medical school are such that I have a foot in the clinical camp and a foot in the ivory towers of academia. In trying to balance these contingencies, it has become apparent to me that there is a schism between what academic clinicians are doing and what community-based clinicians are doing. If that schism grows, we may find that community-based clinical psychologists will pay less and less attention to the research we produce. There is already a general attitude expressed by many of the clinical psychologists I encounter that much of what we do as researchers is not relevant to what they do as clinicians. It is vital that we attend to this issue.

On a more practical level, we as clinical behavior analysts need to participate in dialogues with other clinicians if we want to play a role in the changes psychology is already undergoing. As CBA is largely performed by academic psychologists at this point, we don't often consider our role in the economic marketplace. Since the marketplace is largely oriented toward cognitive-behavioral therapy, it is wise for us to plan specifically how CBA will fit into the future marketplace. This has implications for attracting future behavior analysts into the field.

Although applied behavior analysis has been highly successful in our work with the developmentally disabled and in closed communities/hospital settings, many have been reluctant to move into settings in which our influence over the functional contingencies is more limited and relies heavily on verbal and rule-governed behavior. Despite pioneering early work in the outpatient arena by Kanfer and Saslow (1965, 1966), Ferster (1973), Krasner (1978, 1988), and Rachlin (1988), the role of functional analysis in the outpatient treatment session and a more molar view of a client's life were largely unexplored.

The more traditional treatment areas for behavior analysts do not

represent the typical setting in which most clinical psychologists practice and when these behavioral treatments appear, they are similar to cognitive treatments (e.g., Cautela, 1967). CBA should accept the challenges and frustrations of working in settings where the clinician has limited or no direct influence on the contingencies outside of the therapy session and that CBA has something to offer that is unique. A number of clinical behavior analysts have developed research agendas studying the application of a behavior analytic theoretical interpretation to the treatment of the problems of high functioning, verbal adults. For example, several publications over the last decade have addressed issues relevant to outpatient clinical settings (e.g., Dougher, 1993; 1994; Follette, Naugle & Callaghan, 1996; Hayes, Jacobson, Follette & Dougher, 1994) and have developed interventions from a perspective which is consistent with the underpinnings of behavior analysis (e.g., Hayes, Strosahl, & Wilson, 1999; Kohlenberg & Tsai, 1991). These efforts move us forward to involve CBA in clinical contexts where attending to and modifying verbal behavior is key to effective clinical intervention.

It is important to the future of clinical behavior analysis to continue to seek grants to research the effectiveness of these interventions and to refine the related theoretical conceptualizations. As we enter the 21st century, these are exciting, yet challenging times for clinical behaviorists. I urge us to form alliances between our academic and community-based clinicians and to enter into dialogues with our non-behavioral colleagues. Given our sturdy foundation in behavior analysis, with its successes in many clinical areas, as we continue to branch out, we have much to offer the field of clinical psychology and a wider range of people in need of assistance.

References

Cautela, J. R. (1967). Covert sensitization. Psychological Reports, 20, 459-468.
Dougher, M.J. (1993). (Ed.). Special section on clinical behavior analysis: Part One. The Behavior Analyst, 16, 269-330.
Dougher, M.J. (1994). (Ed.). Special section on clinical behavior analysis: Part Two. The Behavior Analyst, 17, 287-364.
Ferster, C. B. (1973). A functional

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What Does Organizational Behavior Management Have to Offer Social Service Organizations? An OBM Primer for ABA'ers

By Joseph Cautilli, M.Ed., M.Ed., CBA & Karen Clarke, RN

The credentialing of behavior analysts has launched a new group of professionals into the work force. As the behavior analytic profession grows and the number of workers in the area continues to multiply, more behavior analysts will form their own companies or enter into other companies and move up the corporate ladder. As we do so, we will bring our unique way of conceptualizing problems into the social service industry. Thus it becomes important to know how our science, commonly called Organizational Behavior Management (OBM), conceptualizes and empirically solves organizational problems. This article aims to introduce readers to some of the basic concepts and empirical data that OBM has to offer.

OBM answers questions at the organizational level of analysis. Some questions that will be critical for certified behavior analysts with management responsibilities are: a) How do we attract workers during this time of a worker shortage? b) How do we organize what workers do? c) How do we assess and become responsive to various stakeholders? d) How do we go about building successful partnerships with other agencies? e) How can we consult to other social service and mental

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OBM Primer
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making them more efficient, improving quality, and increasing worker satisfaction?

Additional concerns needing attention include: a) With top executives within our industry is moving further and further from the actual level of intervention with our clients, how do we ensure training is in touch with the contingencies of the workers? b) How do we set objectives which allow measurement of worker performance? c) How do we create flexible organizations so that our workers can advance and we can learn from them? d) How do we help agencies to manage employees from different cultures and with different values? e) Given tight budgets, how should companies decide where to allocate resources such as time, money, and personnel? All of the above are considered *management* questions. I begin by exploring the way behavior analysts reconceptualize management.

Management

Management is the acquisition and use of resources. Behavior analysis presents unique ways to manage human resources. OBM redefines management from control of the person to control of the context/environment in which the person works. It has developed powerful techniques for a range of management areas. This article will address these concerns under the following headings: a) Job analysis and design; b) Interviewing and hiring potential employees; c) Setting performance goals; d) Retention of employees; e) Merit pay and other reward systems; f) Creating flexible organizational structures; g) Performing functional analyses; and h) Training and managing diversity. You will notice two common themes throughout these areas: making feedback bi-directional and transforming managers into good coaches.

Job Analysis and Design

Task and goal analyses are critical to the design of any job. When writing a job description, one needs to pinpoint the tasks essential for the position. Just as with clinical patients, you must break down the content of the job into discrete behavioral steps. The question in task analysis is: What must be known in order to perform the task?

When one is not at the point of being able to identify clear tasks, *goal* analysis is more appropriate. In goal analysis, one begins with the more general goals of the position. In OBM, this is referred to as "management by objectives." Here, the position's goals are seen as the "tasks" of the employee. For example, a goal may be "a good supervisor." So, one would begin to explore which behaviors are critical for good supervisors. The question in this analysis is: What tasks will achieve the goal? Once a goal analysis is completed, one is now ready to do a task analysis for each of the clarified goals/objectives.

Of course the above represents an oversimplification of the process. There is a large body of research on this topic; the crucial aspect is the validity of your task or goal analysis. Often the way a manager *thinks* a job is accomplished, is not what happens in actuality. Luthans and Lockwood (1984) looked at the behavior of managers that received the quickest promotions and compared it to managers that were considered most effective at their job. They found that managers that were considered most effective spent a significant portion off their time managing human resources, such as removing obstacles to employees performing their job, encouraging communication, managing the context with reward and, disciplinary systems. Managers who were promoted quickest were those that spent the largest portion of their time politicking and engaged in self promotion. As behavior analysts, we need to ensure that we promote effective managers, not good politicians. In some situations, it takes very sophisticated techniques to conduct such an analysis. For those interested, a good place to start reading on this topic is Crowell & Anderson (1983).

Once a task or a goal analysis is done, the managing behavior analyst still needs to look at the position and see if the position is sufficiently appealing: do sufficient reinforcers exist to maintain workers in that position? Failure

to find sufficient reinforcers could lead to high worker turnover. For example, one of the failures of the early scientific management movement was its approach to job analysis. This movement placed a strong emphasis on efficiency to exclusion of motivational aspects. The result was that workers often became bored with their jobs and quit (Griffin, 1982). Employee turnover costs a company about 50-60% of the employees total compensation package/turn over (Agno, 1998). For example, in managing behavioral technicians, a manager should consider that just conducting discrete trial procedures is not varied enough for most employees. Thus job descriptions are considered fundamental to the retention of employees.

Job descriptions are also important for development and validation of hiring procedures. Barrett (1996) suggested that job descriptions should be simple, but at the same time contain enough detail that the reader can understand what is done on the job. To do this one must highlight the major job duties. Once this has occurred, we say that the description has content validity.

After job descriptions have been created, it is critical that administrators do not violate the description. To do so is to violate the trust between management and employees. Trust that management will have correspondence between what they say and what they do it critical to management-employee relations (Edwards, 1979).

Interviewing and Hiring Potential Employees

Knowledge, skill, and abilities necessary to performing the advertised position should be defined in clear behavioral terms. This is accomplished by performing a task analysis of the position (as discussed above). It is then important to develop behavioral interviews to determine if the candidate's skills level is likely to match the requirements of the task steps (given training). Questions in a behavioral interview emphasize a focus on the candidate's actual past experience in dealing with similar situations rather than abstract questions on how a person would handle a hypothetical scenario.

After assessing the candidate's skill level, interviews must explain the company's expectations or objectives for the job position. This will allow employees to have an honest view of the company and will factor in their decision to take the job; this, in turn, may reduce turnover rates. Finally, it is important to note the candidate's knowledge about the company. Did they ask questions relevant to the organization's culture and overall goals?

Setting Performance Goals

In addition to analyzing the job, performance goals need to be set for the position. Probably the best established finding of studies on goal setting is that workers will perform at a higher level when given a specific goal than when simply asked to do your best (Locke, Shaw, Saari, & Latham, 1981; Locke & Latham, 1984). In addition, evaluative feedback on, goals and rewarding of successful goal completion is critical (Alvosius &, Sultzer-Azaroff, 1990; Methot, Williams, Cummings, & Bradshaw, 1996; Richman, Riordan, Reiss, Pyles, & Baily, 1988). While the use of rewards has unfortunately been somewhat controversial (see Kohn, 1996; Lepper, Kevney, & Drake, 1996), critical analysis of the research and studies on this topic demonstrate that in properly designed programs rewards increase creativity, performance, quality and intrinsic motivation (Cameron & Peirce, 1994; Cameron & Peirce, 1996; Dickinson, 1989; Eisenberger & Cameron, 1996; Lorenzi, 1988; LaFleur & Hyten, 1995). In short, simple rewards such as smiles, praise, or taking the time to ask yourself if there is an employee that you can tell what a good job they did, can "bring out the best" in people (Daniels, 1994).

A particular example of this principle was demonstrated in research conducted at Park Mills, Inc. Before the goal setting program began, employees' average attendance rate was 86%. As part of the goal setting program, they agreed to raise their average attendance rate to 93%. Each day the attendance

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was charted so that workers could be kept informed as to their progress toward their goal. Within four weeks the goal was achieved and surpassed (94.3%). Unfortunately the study was only continued for nine weeks so that maintenance remained a question. One study demonstrating long term beneficial effects is Latham and Locke (1979). Loggers were given truck loading goals. In this study 94% of the loggers were achieving higher loading rates from their baseline *seven* years later.

Retention of Employees

Agno (1998) has stated that several factors contribute to employee turnover. Factors identified were: a) improper recruitment, b) the nature of the job and the company, and c) the characteristics of the individual employee. While these three broad areas do contribute to employee turnover, when there is a problem retaining employees, an OBM approach would direct companies to perform a functional analysis of employee turnover in order to determine why people are leaving in this specific situation (steps in conducting a functional analysis are discussed below). Through this assessment, answers can be found that may help to either redesign the job, provide incentives, or other interventions that may prevent leaving. In addition, as Agno (1998) points out, retention should be a goal from the outset: from the time of designing the job description and conducting the interviews.

Merit Pay and Other Reward Systems

While classical management theory tended to overemphasize the role of money in satisfaction (Wall Street Journal, 1987) and humanistic theories of human behavior tend to believe that only a survival level wage is important (and that reward may decrease motivation), performance-based wage bonuses have been shown to provide an excellent reward structure for employees and have been shown to increase motivation toward target behaviors even in the Soviet Union.

However, merit pay structures have not worked in every case. Merit pay is best viewed as one set of contingencies that factor into job performance. Other contingencies that might factor in are things like social reinforcers and the opportunity for advancement and professional development. Sadly however, in most organizations pay is not contingent on the performance of critical behaviors and maybe this is something that behavior analysts can help change.

Creating Flexible Organizational Structures

As the functional science of behavior analysis moves into organizational <u>creation</u>, we will need to decide how a focus on function can create flexible organizational structures. Will our companies be hierarchical or work in teams (e.g., will contingencies be placed on individual performance or group performance)? Contrary to current trends, most successful companies have some degree of hierarchy.

Part of a manager's role is to stand tall in turbulent change and enlist the participation of colleagues to realize the organization's vision. In general, a manager's job is often chaotic and unpredictable. Thus far, no pat formula exists that takes into account all of the variables involved in being a successful manager. One study looking at management found that much of what managers do is put out the multitude of brush fires that occur every day in the work place. They appear to be interrupted all day long. Often they have no time for setting up control systems. It is a myth that they make decisions on plentiful and precise knowledge. Managers must focus on scarce human resources and have flexible yet sound methods for responding to the demands of the work environment.

In a book titled, *Why Nothing Works*, Marvin Harris looked at the ecology of industrial systems in American. He found environmental factors which selected for the *exact opposite* of quality. In the area of management, looking at systemic factors that select against quality is at the heart of what has come to be known as Total Quality Management or TQM. TQM is based on achieving quality through analysis of and control of variation in systems. This process is referred to

as "statistical process control." The idea of statistical process control is to look at normal variation within the system and make decisions which take into account that variation. For example, a baseball team loses three games in a row, so the owners fire the skipper. Then the team wins its next two. It's easy to assume that they won because of the new manager. Perhaps the team was feeling anxious because management had shifted. Or, perhaps this was purely an incidence of statistical regression to the mean. No team loses every game. It's expensive to fire and hire employees.

Statistics regression to the mean is a very real phenomena and has to be taken into account in organizational decisions (see Hantula, 1995; Hopkins, 1995; Pfadt & Wheeler, 1995 for excellent ways that this can be done). Unfortunately, many managers will draw the conclusion that praise does not work and stop praising their employees and create rules common to "management by exception." Another example of statistical regression is the case of a manager who praises an employee for outstanding work (when the work was much better than average). After the praise if the manager looks at the next instance of performance, she might wrongly conclude that the praise was ineffective due to statistical regression to the mean. Is this because the praise did not work? No, praise like any form of reinforcement is a change factor over time; it is probabilistic. Regression occurs because a host of factors were required to go into this particular performance product, and any one of those factors might change for the next performance and probably will.
Mawhinney (1987,1992a, 1992b) worked on an integration of OBM and TQM. This integration can be used to achieve a system that results in high-powered achievement and decreased random aversives for employees. The integrated TQM and OBM view tries to: (1) discover and utilize employees' wide range of knowledge, skills, and abilities; (2) observe the different kinds of skills needed by different managers; (3) answer the question: What makes an effective manager? (4) create, change, and implement corporate policies and procedures that enhance organizational members' ability to function in teams; and (5) understand technical skills needed for employees to function, especially at lower levels.

In answering the above questions, the issue of the overall structure of an organization arises. One of the most common structures in organizations includes a middle management level. These managers often manage supervisors. They tend to worry about staffing for all lower level management functions and develop a culture- an environment where those levels can function in a way that people can work together. Middle management does less strategic planning than upper level management. As companies have moved away from hierarchies toward what is called "flat companies," middle management is becoming an extinct species. Companies are letting go of middle managers by putting more trust on the shoulders of the employees.

One way in which middle management has tried to survive die off has been to develop a host of informal roles such as idea generators, seeing opportunities for growth, innovation, and expansion and becoming the technological gate keepers and problem-solvers. Middle managers work in the system and are concerned with the nuts and bolts of solving problems.

Another level of organizational structure that certified behavior analysts might aim for is senior level management. Senior managers chart the long range course of the organization. Their job is to work at the system level of analysis. They are often considered the leaders of the organization and provide opportunities to lower level management workers to expand into new areas. They define the new paths which the organization will pursue. They develop abilities and the skills of the workers below them. They are expected to provide a vision and to empower, coach, and guide the people who work under them.

Creating Organizational Rules

As changes occur in the health market, so do management practices. To be managers, we need

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to be rule driven. The most common rules include customer satisfaction and designing contingencies to reduce the statistical variation in daily performance. But foremost is maintaining focus on the minute-to-minute matters of each day. In this worker shortage environment, it involves understanding the needs of the current work force. Surveys suggest that today's 18 to 35 year-old group wants challenges and jobs that provide for professional development. Designing or re-designing jobs to provide challenges and development will cut down on employee turnover.

Vision, policy and procedure are often discussed and agreed on in strategic planning meetings. From these meetings often emerge the rules that will guide the company into the future. Strategic planning is a combination of knowing the market, as well as the knowledge, skills and ability of the staff. In addition on needs to use past relevant events to predict future relevant events. This often calls for a process to prioritize events. Look to the community to see what behaviors are currently being selected.

The above process is fraught with problems. For example, the process could go astray because a company banking on the marketability of a new technology might underestimates the possibility of advances in existing technology. So here again managers must often work with less than perfect information.

A Functional Analysis of Performance Problems

As with any performance problem, behavioral management strategies suggest the performance of a careful functional analysis (Skinner, 1953; Luthans, 1980). This process is probably well known by most behavior analysts reading this paper but the focus here is on applications for management problems. How does one go about conducting a functional analysis with a problem solving focus? A functional analysis has five major steps: (1) identifying critical behaviors to be addressed; (2) measurement of the behavior; (3) the functional analysis itself (identifying the antecedents and consequences); (4) the development of an intervention strategy; and (5) evaluation to ensure that performance improvement is occurring (Luthans, 1980).

The first step is to conduct a behavioral audit (Luthans & Martinko, 1976). The audit would use either internal staff specialists such as a human resource manager or it would use outside consultants. Such an audit should systematically analyze each job in question using job analysis techniques commonly employed in personnel administration. The advantage of this approach can be realized by the audit. In addition, the advantages of staff expertise and consistency can be gained (Luthans, 1980). In this stage we would look to see if the behavior that we are looking for can be measured *and* if it has a direct impact on performance outcome (Mager & Pipe, 1984). The question to be asked here is: Is the change in behavior performance large enough to make a difference in outcome?

In the second phase, we measure and record the behavior in question in the performance issue. A baseline frequency would be obtained. This frequency should be compared to expected frequencies. Sometimes in this part of the analysis we realize that the problem is not as big as we thought or that it is bigger than we believed.

In the third phase, we conduct a functional analysis of the problem behavior. This is we look at the antecedents and consequences of performance. Mager and Pipe's (1984) book on analyzing performance problems contains a flow diagram that is excellent for ensuring that all factors are considered in a functional analysis. A good functional analysis pinpoints the context of the problem and leads to direct solutions for organizational behavior modification.

In step four, we would develop an intervention strategy based on the function of the performance deficit. For example, if the reason an employee is missing a lot of work is that they found the job boring (lack of reinforcers), them we could apply restructuring techniques to build more reinforcers into the position. If we discovered that employees' at-

tendance declined after a new manager came on and employees reported interactions with him as extremely aversive, we could restructure the workplace so that the employees would be more assertive and teach the manager to use positive reinforcement with those around him (Daniels, 1994).

In step five, we evaluate to see if we are having the desired effect. If we are not, then a change in the strategy is needed. Perhaps even with instruction, the manager can not stop saying mean things. At this point we may want to try a direct scripting approach with the manager and be sure to include positive reinforcement for the desired changes in the manager's behavior.

Training and Managing Diversity

While a performance deficit should not automatically be assumed to be a training issue (Mager & Pipe, 1984), some portion are. The critical point is a thorough assessment of the situation. Mager and Pipe (1984) present a detailed flow chart that should be used in assessing performance problems. Such an analysis may reveal that a problem is a skills deficit or it may reveal that a problem is really a motivational deficit. While a motivational deficit may be better addressed through other techniques such are removal of obstacles or aversive interference with performance or to apply some positive consequences for completion, a skills deficit would warrant some type of formal training program.

The key to designing a training is to perform a task and goal analysis of the real world job (Tiemann & Markle, 1990). To perform such an analysis, one must see each real world job as an observable situation in which you can poke about, watch what they do, how often they do it and, if the task is simple enough, a good instructor may even try the task themselves. These factors are discussed above in the section on job interviews.

A trainer planning instruction for a relatively specific job can concentrate upon the component tasks of that particular job. However, there are reasons why educators may plan their curriculum in a different way. First, identifying the component tasks of all jobs would be impractical (Tiemann & Markle, 1990; Bellamy, Horner, & Inman, 1979). Second, the trainer must prepare students for aspects of their future job, such as productivity in the organization's culture or ethical responses. For these particular sequences a goal analysis would be a better strategy.

At Devereux, our foster care's Teaching Families Program is an excellent example of using both task and goal analysis strategies. The program was designed by Barry McCurdy, Ph.D., a behavioral psychologist with many years experience in designing curriculum. The curriculum is in modular form and pre-post analyses are performed. The Teaching Family home program uses task-analyzed skills such as using praise and feedback, and trains these skills. The training of these skills incorporates instruction, role-play, modeling, feedback, and rewards such as certificates of completion.

An example of a subject matter that would use a goal analysis predominantly, and a task analysis as a secondary way of instructing, would be leadership training (Fleming, 1992). Leadership training is critical to an organization's ability to survive (Mawhinney, 1992b). Leaders need to give special attention to the autonomy and feedback characteristics of their employees' jobs. Autonomy involves empowering their subordinates to make decisions and solve their own problems. In other words, giving employees more control over their own jobs. Feedback can be built into some jobs and leaders need to be taught how to do this in job design. In addition, leaders also must provide specific, immediate performance feedback to their employees. Managers should also build in a "feed forward system" (Kreitner, 1982) so that employees can make contributions to managers as well. From an OBM perspective it is important to teach the basic learning skills such as operant conditioning techniques such as reinforcer preference surveys and functional analysis to managers. Managers can be taught to use nonfinancial re-

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wards such as feedback systems and contingent recognition / attention.

One final area of training is to train managers to appreciate and communicate effectively with employees from various cultures. The common trend is to think of culture as differences between people. Culture is much more than just differences, however. People who share a particular culture or a related culture, adopt similar ideas and values for interpreting events. Although membership in a specific cultural group does not determine behavior, members are exposed to, (i.e., socialized by), the same set of expectations and consequences for acting in a particular way. As a result, certain types of behavior becomes more probable (Banks, 1994; Skinner, 1974). It is also important to remember that each worker in an agency is simultaneously a member of multiple groups according to race, ethnicity, religion, class, gender, sexuality, and disability. The literature suggests lack of appreciation of different cultures can lessen worker self-esteem (Kehoe, 1982).

Communication issues in management

Communication is an interpersonal process, that involves the exchange of behavior between two or more individuals (Ivancevich & Matteson, 1987). Several topics often fall under the heading of communication: (1) How are conflicts resolved and dealt with? (2) How is the chain of command structured to ensure that instructions and commands flow down and through the chain of command? (3) How are reports, inquiries, and requests handled and move up the chain of command? (4) How do subgroups communicate (i.e., do they communicate directly or does information need to flow up the chain of command to a juncture point, where the subgroups share the same supervisor)? (4) Does the staff have free reign to collect and disseminate nonauthoritative information in their role as an extension of the company? (5) Does feedback reach those it should?

Improving the lines of communication is often seen as a critical role for managing human resources. If the reasons for poor communication are either a skills deficit or a minor motivational deficit, then team building activities, which are designed to open communication and build trust could address this problem. Such activities would include defining conflicts, establishing cooperative work goals and ground rules, negotiating areas of responsibility, generating more appropriate responses to each other, and designing group responses to problems.

The above interventions will only work if a serious motivational deficit does not exist because they rely on all players entering into a collaborative set. If this is not the case or other patterns of communication are so well rehearsed that they are automatic, then efforts are sure to be sabotaged. If the latter is the case, then a functional analysis of each communicator needs to be completed to decide on how to proceed.

Implications for Graduate Training Programs in ABA

As might be guessed from the tone of this article, I strongly believe that all students of behavior analysis should take some OBM coursework. This is largely because they will all consult to at least one company, the one they work for, or manage. To train our students in OBM allows them to have the opportunity to change the face of the current social service and behavioral health markets and create an environment for continuous quality improvement.

References

Agno, J. G. (1998). Keeping employees from jumping ship. http://public.wsj.com/careers/resources/documents/19980305-ango.htm

Alvosius, M. P. & Sultzer-Azoroff, B. (1990). Acquisition and maintenance of health care routines as a function of feedback density. Journal of Applied Behavior Analysis, 23, 151-162.

Banks, J.A. (1994). Multiethnic education: Theory and practice (3rd Ed.). Boston: Allyn and Bacon.

Barrett, R. S. (1996). Fair employment strategies in human resource management. Greenwood Publishing Group.

Bellamy, G. T., Horner, R. H., Inham, D. P. (1979). Vocational habilitation of severely retarded adults: A

direct service technology. Baltimore: University Park Press.

Cameron, J. & Peirce, W. D. (1994). Reinforcement, rewards, and intrinsic motivation: A meta-analysis. Review of Educational Research, 64, 363-423.

Cameron, J. & Peirce, W. D. (1996). The debate about rewards and intrinsic motivation. Review of Educational Research, 66, 39-52.

Crowell, C. R. & Anderson, C. D. (1983). Systematic behavior management: General program considerations. Journal of Organizational Behavior Management, 4, 129-163.

Daniels, A. C. (1994). Bringing out the best in people. NY: McGraw-Hill.

Dickenson, A. M. (1989). The detrimental effects of extrinsic reinforcement on "intrinsic motivation." The Behavior Analyst, 12, 1-15.

Edwards, R. (1979). Contested Terrain: The transformation of the Workplace in the Twentieth Century. Basic Books.

Eisenberger, R. & Cameron, J. (1996) Detrimental effects of reward: Reality or myth? American Psychologist, 51, 1153-1166.

Fleming, R. (1992). An integrated behavioral approach to transfer of interpersonal leadership skills. Journal of Management Education, 16, 341-343.

Griffin, R. W. (1982). Task design: An integrative approach. Glenview, Ill: Scott, Forsman.

Hantula, D. A. (1995). Disciplined decision making in an interdisciplinary environment: Some implications for the clinical applications of SPC. Journal of Applied Behavior Analysis, 28, 371-386.

Harris, M. (1981). Why nothing works (in particular, see chapters 2 & 3). NY: Simon & Schuster.

Hopkins, B.L. (1995). Applied behavior analysis and SPC? Journal of Applied Behavior Analysis, 28, 379-386.

Ivancevich, J. M. & Mateson, M. T. (1987). Organizational behavior and management. (p. 631). Business Publications, Plano Texas.

Kehoe, J. (1982). Ethnocentrism, self-esteem, and appreciation of cultural diversity. Canadian Ethnic Studies, 14, 69-78.

Kohn, A. (1996). By all available means. Review of Educational Research, 66, 33-38.

Kreitner, R. (1982). The feedforward and feedback control of job performance through organizational behavior management. Journal of Organizational Behavior Management, 5, 3-31.

Latham, G. P. & Locke, E. A. (1979). Goal setting: A motivational technique that works. Organizational Dynamics, 8, 68-80.

Lepper, M. R., Kevney, M., & Drake, M. (1996). Intrinsic motivational and extrinsic rewards. Review of Educational Research, 66, 5-32.

LeFleur, T. & Hyten, C. (1995). Improving the quality of hotel banquet staff performance. Journal of Organizational Behavior Management, 15, 69-93.

Locke, E.A., Shaw, K.N., Saari, L. M., & Latham, G. P. (1981). Goal-setting and task performance 1969-1980. Psychological Bulletin, 90, 125-152.

Locke, E. A. & Latham, G. P. (1984). Goal setting: A motivational technique that works! Englewood Cliffs, NJ: Prentice-Hall.

Lorenzi, P. (1988). Underestimating the effects of goals and rewards: A systematic replication. Journal of Organizational Behavior Management, 9, 59-71.

Luthans, F. (1980). Resolved: Functional analysis is the best technique for diagnostic evaluations of organizational behavior. In B. Karmel (Ed.) Point and counterpoint in organizational behavior. Dryden, Hinsdale, Ill. pp. 48-60.

Luthans, F. & Lockwood, D. L. (1984). Toward an observation system for measuring leader behavior in natural settings. In J. G. Hunt, D. Hosking, C. Schriesheim, & R. Stewart (Eds.) Leaders and Managers. Pergamon Press: New York.

Luthans, F. & Martinko, M. (1976). An organizational behavior modification analysis of absenteeism. Human Resource Management, 15.

Mager, R. & Pipe, P. (1984). Analyzing performance problems, or, you really oughta wanna (2nd Ed.) AZ: Lake Publishers.

Mawhinney, T.C. (1987). OBM, SPC, and Theory D: A brief introduction. Journal of Organizational Behavior Management, 5, 89-104.

Mawhinney, T. C. (1992a). Evolution of organizational cultures as selection by consequences: The Gaia hypothesis, metacontingencies, and organizational ecology. Journal of Organizational Behavior Management, 12, 1-26.

Mawhinney, T. C. (1992b). Total quality management and organizational behavior management: An integration for continual improvement. Journal of Applied Behavior Analysis, 25, 525-543.

Methot, L. L., Williams, W. L., Cummings, A., & Bradshaw, B. (1996). Measuring the effects of a manager-supervisors training program through generalized performance of managers, supervisors, front-line staff and clients in a human service setting. Journal of Organizational Behavior Management, 16, 3-34.

Pfadt, A. & Wheeler, D. J. (1995). Using statistical process control to make data-based clinical decisions. Journal of Applied Behavior Analysis, 28, 349-370.

Richman, G. S., Riordan, M. R., Reiss, M. L., Pyles, D. A. M., & Bailey, J. S. (1988). The effects of self-monitoring and supervisory feedback on staff performance in a residential setting. Journal of Applied Behavior Analysis, 13, 401-409.

Skinner, B. F. (1953) Science and Human Behavior. Appleton Century Croft.

Skinner, B.F. (1974). About Behaviorism. New York: Alfred Knopf.

The Wall Street Journal (Jan, 1987). Labor Letters. p 1.

Tiemann, P. W., & Markle, S. M. (1990). Analyzing instructional content: A guide to instruction and evaluation. Champaign, IL: Stipes Publishing Company.

Issues of Acceptance in Chronic Pain Populations

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Chronic pain, defined as recurrent pain which last for longer than six months, represents a wide spread and challenging problem affecting as many as 75 million Americans and which has considerable impact on the quality of life for the people who are experiencing it (Bonica, 1987; Frymoyer & Cats-Baril, 1991). For many of these individuals no clear diagnosable etiology for their pain will be identified (Deyo, 1986; Dworkin & Massoth, 1994) and, despite substantial expenditures, in many, if not most cases, chronic pain continues to be poorly managed within traditional medical settings (Crook, Weir & Turks, 1989).

To improve treatment outcome and broaden our understanding of this complex behavior, a number of theorists have expended the conceptualization of pain to include psychological factors and indeed the official definition of pain acknowledges the presence and role of psychological factors in the experience of pain (Flor & Turk, 1984; Fordyce, 1976; Gatchel & Turk, 1996). Within the now broadly recognized biosocial model, pain is defined as a physical, emotional, and behavioral experience associated with actual or potential tissue damage (Gatchel & Turk, 1996; Melzack & Walls, 1982).

There are several important implications which follow from this definition. The foremost of which is that all pain in humans is mediated by psychological factors. Amongst other things, this means there is no such phenomena in humans as "true pain" and searching for distinctions between Psychogenic vs. Organic pain is not useful. However, there is a large variation in the type psychological factors present, the extent to which they are influencing perception and expression of pain, and the impact they are having on treatment.

By including behavioral and cognitive-behavioral treatments in pain management programs, treatment outcomes improve considerably and there is a substantial body of literature demonstrating the efficacy of multidisciplinary approaches to chronic pain management (Flor & Turk, 1984; Fordyce, 1976; Gatchel & Turk, 1996; Kerns, 1994). However, a sizable proportion of patients do not respond well even to structured multidisciplinary treatment programs (Turk, 1990; Turk & Rudy, 1991). It has been suggested that patient factors may account in part for differences in outcome (Kerns, et al., 1997). One important factor that has not received extensive attention, but which may differentiate between responders and non-responders, is acceptance of pain. In particular, acceptance of pain as a chronic condition which is going to require a different approach than that used for acute pain. As such, changing patient's level of acceptance can be an important part to effectively impacting their pain experience.

Recently, within the field of clinical behavior analysis, there has been growing interest in the role of verbal behavior in the etiology and maintenance of psychopathology. As such, a number of individuals have written about the impact of "acceptance" on a variety of clinical phenomenon (Hayes, et al., 1994). This paper examines the possible role of acceptance vs. non-acceptance within chronic pain populations.

Data from ongoing studies being performed at the University of Alabama at Birmingham School of Medicine suggest three general styles of responding to chronic pain. The first is what might be called the <u>acute pain response</u>. These individuals continue to be focused on seeking medical solutions to their pain. They are often in a great deal of emotional distress, are highly focused on identifying an etiology to their pain, often are seeking invasive solutions like surgery, engage in frequent "doctor shopping" seeking a total resolution and cure for their pain, see their pain as a medical problem which should be addressed solely by medical personnel, and put life goals on hold. Many patients

continue to seek treatment at high personal, as well as financial cost, which actually disrupts the chances of engaging in a successful treatment (Arnoff, 1991; Philips, 1987).

The second way individuals may respond to chronic pain might be defined as the disability response. This is characterized by accepting that their pain is likely to be chronic and that an etiology might never be found and so they give up. They tend to see themselves as disabled and indeed often are seeking SSI Disability, are highly sedentary, are often depressed, and have abandoned their life goals. They also view their pain as a medical problem, however they are typically seeking medication-based solutions rather than interventional solutions.

These two ways of responding might be thought of as akin to responses one frequently sees to emotional pain (Hayes, et al., 1996). For example, in response to depression, people often either spend large amounts of energy trying to push it away or wallow in it. Neither is a response that involves addressing the symptoms of depression. Similarly focusing on acute pain management strategies or living a disability-focused lifestyle are both ways of responding to chronic pain that are maladaptive, avoidant, and non-accepting of the current circumstances. Both of these groups of patients tend to be passive about their role in treatment and tend to see treatment outcome in black and white terms. For these patients, treatment efficacy is defined as complete return to normal functioning, otherwise treatment has been a failure. However, a large majority of chronic patients will continue to experience some level of pain even after "successful" treatment, and some pain treatments actually do more harm than good (Arnoff, 1991; Crook, et al., 1989; Philips, 1987). For most individuals experiencing chronic pain, more appropriate and realistic treatment goals are aimed at stabilizing pain and maximizing function (i.e., rehabilitation strategies) rather than effecting a cure (medical strategies). In part because of this, similar to the recent movement found in the area of acceptance based psychotherapy, there has increasingly been a call to shift treatment focus away from the elimination of pain and toward effective pain management (McCraken, 1998).

The third way of responding to chronic pain, acceptance based responding, may indicate a useful direction for treatment approaches. In general, within the context of chronic pain, an acceptance based response refers to acknowledging that the pain is going to be chronic although means can be found to modify pain, accepting responsibility of self-care, use of active pain management techniques, giving up on unproductive attempts to eliminate pain, reducing reliance on healthcare professionals, and committing to working toward important life goals despite pain. To paraphrase Hayes and his colleagues (1996), acceptance means actively contacting physical as well as psychological experiences while behaving effectively.

Based on this conceptualization of acceptance as applied to chronic pain, we would predict a variety of changes for patients who adopt an attitude of acceptance. In particular, one would expect to see: a) decreased emotional distress, b) decreased reliance on the sole use of medical solutions, such as medications, further medical evaluations, and additional surgeries, and c) decreased avoidance of possibly pain-inducing situations which in turn would lead to increased activity and improved participation in physical therapy. Interestingly, based on this formulation one may or may not see a decrease in *reported pain*, but one should see an *increase in reported quality of life.*

There is a slowly building body of literature supporting the ideas put forward in this paper. Data from other medical populations such as renal failure patients suggest that continued efforts to control uncontrollable medical events is predictive of negative emotional responding (Eitel et al., 1995). Conversely, it was found that individuals who work toward goals of increased understanding of the context of their disease and acceptance of the events have fewer negative emo-

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tional responses and increased coping. Relatedly, working on controlling what is controllable has positive effects on coping and emotional responding (Rothbaum, et al., 1982). It would seem that being able to work on finding effective solutions requires acceptance of the context and pain.

Recently two studies have investigated acceptance and pain. Kerns and his research group (1997) approached the problem from the perspective of a stages of changes model. They suggested that determining a patient's stage of change could be predictive of response to pain and coping style. They found that patients who were in a stage of pre-contemplation were more likely to report poor pain control, focus on medical solutions to pain, and use more passive coping techniques. Patients who were in the action or maintenance stages reported more pain control, less focus on medical pain management, and higher use of active coping techniques.

Most recently McCracken (1998) used a questionnaire designed by Geiser and Hayes at the University of Nevada, Reno, which specifically assessed acceptance and pain (the Chronic Pain Acceptance Questionnaire), along with several other self-report measures, to investigate the relationship between acceptance and a variety of factors commonly associated with chronic pain. He found that acceptance was correlated with lower anxiety and avoidance, less depression, more activity, and less disability. Interestingly, pain intensity and acceptance had only a relatively low correlation suggesting that higher levels of acceptance were not explained simply by lower pain levels.

These studies suggest that acceptance may be an important factor to consider, but can attempting to manipulate acceptance affect actual treatment? The answer to this question is at this point tentative. The only study to date which has attempted to answer this question is an unpublished dissertation performed by Geiser at UNR in 1992. The study compares the effects of an acceptance-based intervention to those of a standard cognitive-behavioral intervention. There were methodological limitations to the study, but Geiser did find that acceptance, as measured with a questionnaire designed and standardized for pain populations, was associated with a number of positive outcomes and that the acceptance-based intervention was an effective treatment. Of note, he did not find differences between the standard treatment approach and the acceptance-based approach, but Geiser also found that both groups demonstrated improved acceptance of pain. The results imply that, although there are likely multiple treatment methods which can successfully reduce and stabilize pain, acceptance may be part of effectively providing treatments.

In closing, it does appear that acceptance may play a role in improved ability to manage pain. The extent to which acceptance is important in dealing with pain will depend on the context. For example, the nature of the pain disorder, the interventions which are still available, and their efficacy. This is analogous to different levels of acceptance in mood disorders. There is clearly a difference between better understanding and coming to terms with an abusive childhood history versus ongoing physical abuse. It should also be noted that there is not just one point at which individuals need to make a decision regarding acceptance of chronic pain versus continued pursuit of treatment (McCraken, 1998). Effective and appropriate treatment for intractable pain should involve an ongoing process of balancing acceptance with attempts to find new ways to control pain based on emerging medical technology. There is a need for ongoing dialogue between patients and treatment providers and an important part of maintaining acceptance is providing patients with honest information in a hopeful context about the limits of current practice. It should emphasize that there is still clearly a need for behavioral and cognitive-behavioral interventions within this population, as many patients do significantly benefit from training in these kinds of skills. The question becomes where to target efforts for specific patients

and much work is still needed to improve our understanding of how these techniques work and with whom? Additional research is needed to better understand the role of acceptance in chronic pain and to identify and improve the effective components of different interventions for pain and acceptance.

References

Arnoff, G.M. (1991). Chronic pain and the disability epidemic. Clinical Journal of Pain, 7, 330-338.

Bonica, J.J. (1987). Importance of the problem. In S. Anderson, M. Bond, M. Mehta & M. Swerdlow (Eds.) Chronic Non-cancer Pain. Lancaster, UK: MTP Press, 18.

Crook, J., Weir, R. & Turk, E. (1989) An epidemiological follow up survey of persistent pan suffers in a group family practice and specialty pain clinic. Pain, 36, 49-61.

Deyo, R.A. (1986). The early diagnostic evaluation of patients with low back pain. Journal of General Internal Medicine, 1, 328-338.

Dworkin, S.F. & Massoth, D.L. (1994). Temporomandibular disorders and chronic pain: A dynamic-ecologic perspective. Annals of Behavioral Medicine, 14, 3-11.

Eitel, P, Hatchett, L., Friend, R., Griffin, K.W. & Wadhwa, N.K. (1995). Burden of self-care in seriously ill patients: Impact of adjustment. Health Psychology, 14, 457-463.

Flor, H. & Turk, D.C. (1984). Etiological theories and treatment for chronic back pain. Somatic models and interventions. Pain, 19, 105-121.

Fordyce, W.E. (1976). Behavioral Methods for Chronic Pain. St. Louis: CV Mosby.

Frymoyer, J.W. & Cats-Baril, W.L. (1991). An overview of the incidences and costs of low back pain. Orthopedic Clinics of North America, 22, 263-271.

Gatchel, R.J. & Turk, D.C. (1996). Psychological Approaches to Pain Management: A Practitioner's Handbook. New York: The Guilford Press.

Geiser, D.S. (1992). A comparison of acceptance-focused and control-focused psychological treatments in a chronic pain treatment center. Unpublished doctoral dissertation. University of Nevada, Reno, NV.

Hayes, S.C., Jacobson, N.S., Follette, V.M. & Dougher, M.J. (1994). Acceptance and Change: Content and Context in Psychotherapy. Reno, NV: Context Press.

Hayes, S.C., Wilson, K.G., Gifford, E.V., Follette, V.M. & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. Journal of Consulting and Clinical Psychology, 64, 1152-1168.

Kerns, R.D. (1994). Pain management. In H. Hersen & R.T. Ammerman (Eds.), Handbook of Prescriptive Treatments for Adults. New York: Plenum Press. Pp. 443-462.

Kerns, R.D., Rosenberg, R., Jamison, R.N., Caudill, M.A. & Haythornthwaite, J. (1997). Readiness to adopt a self-management approach to chronic pain: The Pain Stages of Change Questionnaire (PSOCQ). Pain, 72, 227-234.

McCracken, L.M. (1998). Learning to live with pain: Acceptance of pain predicts adjustment in persons with chronic pain. Pain, 74, 21-27.

Melzack, R. & Walls, P.D. (1982). The Challenge of Pain. New York: Basic Books.

Philips, H.C. (1987). Avoidance behavior and its role in sustaining chronic pain. Behavior Research and Therapy, 25, 273-279.

Rothbaum, F., Weisz, J.R. & Snyder, S.S. (1982). Changing the world and changing the self: A two-process model of perceived control. Journal of Personality and Social Psychology, 42, 5-37.

Turk, D.C. (1990). Customizing treatment for chronic pain patients: Who, what, why? Clinical Journal of Pain, 6, 255-270.

Turk, D.C. & Rudy, T.E. (1991). Neglected topics in the treatment of chronic pain patients- relapse, noncompliance, adherence enhancement. Pain, 44, 5-28.

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analysis of depression. American Psychologist, 28, 857-870.

Follette, W.C., Naugle, A.E. Callaghan, G.M. (1996). A radical behavioral understanding of the therapeutic relationship in effecting change. Behavior Therapy, 27, 623-641.

Hayes, S.C., Strosahl, K.D., & Wilson, K.G. (1999). Acceptance and commitment therapy: An experiential approach to behavior change. NY: Guilford.

Hayes, S.J., Jacobson, N.S., Follette, V.M. & Dougher, M.J. (1994). (Eds.) Acceptance and Change. Reno, N.V. Context Press.

Kohlenberg, R.J. & Tsai, M. (1991). Functional analytic psychotherapy: Creating intense and curative therapeutic relationships. New York: Plenum.

Kanfer, F.H. & Saslow, G. 1965). Behavior Analysis. Archives of General Psychiatry, 8, 167-169.

Kanfer, F.H. & Saslow, G. (1969) Behavioral diagnosis. In C.M. Franks (Ed.) Behavior Therapy: Appraisal and Status (pp. 417-444). New York: McGraw-Hill.

Krasner, L. (1978). The future and the past in the behaviorism-humanism dialogue. American Psychologist, 33, 799-804.

Krasner, L.(1988). Paradigm lost: On a Historical/Sociological/ Economic Perspective. In D. B. Fishman, F. Rotgers, & C. Franks (Eds.) Paradigms in Behavior Therapy (pp. 23-41). Springer: New York.

Rachlin, H. (1988). Molar behaviorism. In D. B. Fishman, F. Rotgers, & C. Franks (Eds.) Paradigms in Behavior Therapy (pp. 77-94). Springer: New York.

Skinner, B.F. (1957). Verbal Behavior. Englewood Cliffs, NJ: Prentice-Hall.

Applied Behavior Analysis Credential Program in Pennsylvania and Beyond

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In June of 1997, Dr. William Penn, Director, Bureau of Special Education (BSE), Pennsylvania Department of Education (PDE) convened a focus group in Harrisburg to review Pennsylvania's current strengths, needs, and resources in the area of autism. This group consisted of parent and advocacy organizations, higher education, medical, and state agency personnel, educators, and administrators from private and public schools. The focus group identified six (6) areas of development for PDE. The areas identified were: diagnosis, efficacy, service delivery models, training, and funding. Dr. Penn used this information to develop a training and technical assistance plan that included regional team training focusing on efficacy, summer institutes, teleconference series, and a credential program in applied behavior analysis.

ABA Credential Program

The Focus Group participants had indicated that PDE should address the need for a competency-based program for appropriately trained staff in applied behavior analysis (ABA). After extensive research and data review, it was decided to replicate the behavior analysis credentialing process used successfully in Florida since the early eighties. Gerald Shook, Ph.D., was contacted to provide assistance concerning the behavior analysis credential process and an agreement was reached with the Florida Department of Children and Families to use their credentialing examination.

A mock examination in ABA was conducted in November 1997 for use as an initial needs assessment. The results of the mock examination were used to assist with course design and to assess participant interest in the course. There were 125 persons in participation at the mock examination and completed the questionnaires concerning course delivery options.

Credential Process

The credential process is made up of three components:

1. Successful completion of graduate coursework in applied behavior analysis;
2. Supervised practicum in ABA; and,
3. Successful completion of the examination.

There are two levels of the examination process: the associate behavior analyst and the credential behavior analyst. The associate behavior analyst requires a bachelor's degree with 90 hours of coursework with one school year or 12 months of full-time supervised experience. The credential behavior analyst requires a master's degree with 190 hours of graduate coursework with two school years or eighteen months of full-time supervised experience.

Graduate Coursework

Four graduate credit courses in ABA were offered through Penn State's Division of Distance Learning and University Park Department of Special Education with Dr. Gerald Shook as lead instructor. The first course, ABA: Basic Principles, began in January 1998 and was offered through a distance learning model. Classes were down linked on Saturday from 9:00 a.m. until noon to the 70 participants at six (6) sites in PA with a facilitator at each site.

The second course was conducted in June 1998 on ABA: Basic Principles II by videoconference. The third course, Advanced Topics in ABA, was conducted onsite at the Pennsylvania State University in conjunction with the Summer Autism Institute in August 1998. The fourth course, Extended Applications of ABA, was held on Saturday from 9:00 a.m. until noon during the Fall '98 semester.

Supervised Practicum

Dr. Shook conducted practicum twice per month, from noon to 2:00 p.m., after the completion of the classes. Case studies were presented by class participants and supervised by Dr. Shook.

Continuation

At the conclusion of the first twelve-credit course sequence, Penn State University continued to offer the twelve credit course series through its distance learning and continuing education program. Course three of this series was scheduled on site at the Pennsylvania State University in conjunction with the Pennsylvania Autism Institute and National Conference in August 1999.

Beyond Pennsylvania: National Reciprocity

The Behavior Analyst Certification Board has been formed to provide a National credential. In addition to Pennsylvania, California, Texas, Florida, Oklahoma, and New York have also instituted a credential process.

Examination

Credential Behavior Analyst

Examination Date	# Taking Exam	# Pass	# PA Taking	# PA Pass	# PA Course Participants taking Exam	# PA Course Participants Pass
February 21, '98	6	4	6	4	0	N/A
August 1, '98	9	8	9	8	6	5
February 27, '99	28	24	20	17	17	14
September 18, '99	28		16		0	N/A

Associate Behavior Analyst

Examination Date	# Taking Exam	# Pass	# PA Taking	# PA Pass	# PA Course Participants taking Exam	# PA Course Participants Pass
February 21, '98	0	N/A	N/A	N/A	N/A	N/A
August 1, '98	18	14	18	14	12	11
February 27, '99	2	1	2	1	2	1
September 18, '99	3		0		0	N/A

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Credential Program
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Information for people credentialed in any of these states on *exchanging state credential for the national credential* is available at the Behavior Analysts Certification Board at www.BACB.com

Updates

As part of the ongoing technical support in the area of autism, a web page was established to provide convenient access to information in this area. All training events within the commonwealth are listed. Persons earning the credential are listed on this web page as well as contact people in each area. For further information is available at www.cisc.k12.pa.us.

This summer, Progress Through Partnership, a 3 credit graduate course will be offered in an intensive format from August 7-11, 2000 running concurrently with Penn State's Summer Autism Institute. Watch for updated information at: www.outreach.psu.edu/C&I/Autism or at the CISC website listed in the prior paragraph.

Note from the editors on the BACB:

We encourage readers to visit the BACB website listed above, but will paraphrase some of the basic information here. The BACB is based in Florida under the leadership of executive director, Gerald L. Shook, Ph.D. Board of Directors include Dr. James Johnston (President of the Board of Directors) representing the Association for Behavior Analysis; Dr. Jon Bailey representing the Florida Association for Behavior Analysis; Michael Hemingway (Chair of the BACB Standards Committee); and Dr. Catherine Maurice representing the voice of consumers of behavior analysis services. Florida has run such a program for over 15 years. BACB states that their main purpose is to "develop, promote, and implement a voluntary national (and perhaps eventually international) certification program for behavior analyst practitioners." So far, 6 states have such exams and those certified by those states may apply for national reciprocity until a set cutoff date (see website for application and details). The BACB plans to administer examinations to eligible candidates in California, Pennsylvania, New York, Oklahoma, Texas, and Washington, D. C. in May of 2000.

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Hi There! A Message from Founder and Co-editor, Joseph Cautilli, M.Ed., M.Ed., CBA

I remember the morning of May 30th, 1999 well... I was in Chicago attending the 25th Annual convention for the International Association for Behavior Analysis... and I received some frightening information: I had been elected editor of the Clinical Behavior Analyst, the newsletter of the special interest group (SIG) by the same name. This information was particularly frightening because I had never put out a newsletter before and now I was on the hook to put out three this year.

Yes, three. The first newsletter is for the Association for the Advancement of Behavior Therapy (AABT). I had recently initiated a SIG that grew pretty quickly. This group, the Behavior Analysis Special Interest Group (BASIG), has as it's mission to provide a concentrated behavior analytic voice among voices which are more cognitive and structural. We intend to emphasize functionalism and behavioral approaches to verbal behavior. As well, we hope to highlight the importance of conducting research from a strong theoretical base, sometimes lost in the ebb and flow of blind empiricism. Some areas of interest that will be reflected in this newsletter include Clinical Behavior Analysis, Behavioral Models of Child Development, Community-based behavior analytic interventions, and Behavioral Philosophy. With the help of my co-editor, Beth Rosenwasser (iBRosie@aol.com), Craig Allen Thomas, David Reitman, John Forsyth (forsyth@csc.albany.edu), and Duane Lundervold (dlunderv@utep.edu), I began to envision a newsletter that would interest the members of both SIG's.

I was on the hook for yet one more newsletter. This time for an important or-

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