

## Historical Development of Organizational Behavior Management

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### Abstract

**Purpose:** The study aims to review the existing literature linked to the field of Organization Behavior Management (OBM) and provide a historical account of OBM development based on the existing literature.

**Design/methodology/approach:** The study performs keywords search of published OBM articles from 1950 onwards in widely used research databases. All materials were reviewed, i.e., the title, abstract, background, and methodology, to determine whether they are in line with the objective of the current study.

**Findings:** The historical review shows that OBM practices applied widely over the years were visible in various sectors in the late 1960s and early 1970s. By the end of the 1980s, the OBM discipline was well established. It has produced considerable evidence through behavior analytic interventions that modify human behavior at work. Research findings show that OBM practices help an individual to understand how to carry out one's tasks/activities within the organization to improve business results.

**Research limitations:** Research scholars have limited knowledge that provides an error-free study of the OBM field past events. The historical development of OBM involvements and their recent contributions can be found in research publications of the Journal of Organization Behavior Management (JOBM).

**Practical implications:** The current study provides insights about the developmental phase of the OBM field and discusses how it changed the behavior analytic for enhanced delivery at workplaces. Historical events such as Skinner's behavior modification account for the development of OBM that influences traditional management and is used today in a variety of situations by OBM practitioners.

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**Originality/value:** This paper provides a historical evaluation of the OBM practices. It expands our knowledge of the OBM field and its interventions over time. Reflections of the study highlight the need for OBM practices for the successful functioning of various types of organizations.

**Keywords:** history, review, organization theory, OBM and behavior analysis, performance.

**JEL:** E24, J24, J63, O15

## Historyczny rozwój zarządzania zachowaniami organizacyjnymi

### Streszczenie

**Cel:** celem opracowania jest przegląd dotychczasowej literatury związanej z dziedziną zarządzania zachowaniami organizacyjnymi (OBM) i przedstawienie rozwoju OBM z perspektywy historycznej w oparciu o istniejącą literaturę.

**Postępowanie badawcze/metodologia/podejście:** w ramach badania przeprowadzono wyszukiwanie słów kluczowych w artykułach dotyczących OBM opublikowanych od 1950 roku w powszechnie używanych bazach danych badań. Dokonano przeglądu wszystkich materiałów, tj. tytułów, streszczeń, kontekstu i metodologii, w celu ustalenia czy są one zgodne z celem opracowania.

**Wyniki:** z przeglądu historycznego wynika, że szeroko stosowane przez lata praktyki w zakresie OBM były widoczne w różnych sektorach pod koniec lat 60. i na początku lat 70. XX wieku. Pod koniec lat 80. dyscyplina OBM była już dobrze ugruntowana. Dobitnie świadczyły o tym interwencje oparte na analizie zachowania, które modyfikują zachowanie ludzi w pracy. Wyniki badań pokazują, że praktyki w zakresie OBM pomagają jednostce zrozumieć, jak wykonywać swoje zadania/czynności w organizacji, aby poprawić wyniki działalności.

**Ograniczenia badawcze:** badacze mają ograniczoną wiedzę, która zapewniłaby bezbłędną analizę przeszłych wydarzeń w dziedzinie OBM. Historyczny rozwój stosowania OBM i jego niedawny wkład można znaleźć w publikacjach badawczych w czasopiśmie *Journal of Organization Behaviour Management* (JOBM).

**Implikacje praktyczne:** opracowanie przybliży etap rozwoju dziedziny OBM. Omówiono również sposób, w jaki OBM zmieniło analizę zachowania w celu poprawy wyników w miejscach pracy. Wydarzenia historyczne, takie jak modyfikacja zachowania Skinnera, doprowadziły do rozwoju OBM, co wpływa na tradycyjne zarządzanie. OBM jest obecnie stosowane w różnych sytuacjach przez praktyków.

**Oryginalność/wartość:** artykuł zawiera historyczną ocenę praktyk w zakresie OBM. Poszerza wiedzę na temat OBM i interwencji podejmowanych w jego ramach na przestrzeni czasu. Refleksje z badania wskazują, że praktyki w zakresie OBM są konieczne dla pomyślnego funkcjonowania różnych rodzajów organizacji.

**Słowa kluczowe:** historia, przegląd, teoria organizacji, OBM i analiza zachowania, wyniki pracy.

## 1. Introduction

The association between organizational behavior management (OBM) and historical organizational research has long been recognized (Mills et al., 2016; Rodriguez & McGee, 2019). However, the potential of history to enhance and transform our comprehension of contemporary organizations and OBM field remains unaddressed (Maclean et al., 2016; Rowlinson et al., 2014). The OBM historical evaluation indicates both the past as hav-

ing gained knowledge by applying various tools and the historians making a pattern from interconnected behavioral elements (MacKay, 2007; Mills et al., 2016; Üsdiken & Kieser, 2004), which often stays hidden in organizational research.

OBM is the application of applied behavior analytic techniques to assess and intervene in organizational problems and concerns (Frederiksen, 1982; Hersey et al., 2007). It is concerned with applying modifications of behaviors to impact socially relevant behaviors and outcomes positively. It focuses on assessing and changing the work environment to enhance employee performance and improve workplace culture (Rodriguez & McGee, 2019). OBM tools have been used widely by the practitioners in various disciplines (e.g., Balcazar et al., 1989; Killingsworth et al., 2016; Shriver, 2019; Wilder et al., 2009) for productive work environment and higher employee performance. It uses a science-driven approach to strengthen individual and systems-level performance in organizations. OBM, for more than thirty-five years, has produced significant evidence of research through its leading journal, the *Journal of Organizational Behavior Management (JOBM)*, which is publishing its 35th volume, that behavior analytic principles can change human behavior in the workplace (Ludwig, 2015). Applications of OBM have demonstrated success in a variety of human service settings (Borkowski & Meese, 2020; Reid & Parsons, 2000). Yet, OBM has not been widely adopted, and more research is needed to improve organization-wide adoption and application.

Generally, a productive work environment helps people achieve their potential business results efficiently and effectively (Lim & Oah, 2018), which is ensured through engaging leaders and coworkers to create a motivating and productive work environment. OBM lays hold of applied behavior analysis and behavioral thinking to make a positive work environment that drives both employees' and managers' intended behaviors (Hersey et al., 2007; Hyten, 2009, 2017).

OBM scholars study the effects of behaviors in lab settings using experimental research (Griffin et al., 2019), which leads to the footprints of pursuing organizational psychological research studies. There has been much discussion on the relationship between the science of OBM and the practice of OBM. Austin (2009) argued that the practice of OBM started first, and then science held it by adding scientific information in the shape of theories. However, in practice, OBM scholars and consultants teach leaders observing the behavior of employees, and it seems simple to come up with ideas for improvement. So a dominant feature of OBM and its practice is to teach leaders how to carefully observe what people say and do, and that has an excellent power (Abernathy, 2008). It allows us to make a decision based on data as opposed to opinions. For instance, organizational leaders lacking leadership qualities make poor decisions such as firing an employee, without understanding what factors drive employee behavior for the job.

Hence it requires some effort and understanding of employee behavior in order to reinforce it.

Understanding the causes of work problems is a big part of applied behavior analysis to understand the situation and then to use the appropriate solution. Scholars have gone through various studies and proved that agreeing on employee expectations and shaping their behavior have many complexities (Olson et al., 2001; VanStelle et al., 2012). Research over the last 50 years has shown that leaders have the most trouble with agreeing on employee expectations and making them part of the behavioral aspect, i.e., giving feedback, receiving feedback, using incentives reinforcement, praise, etc. (Austin & Wilson, 2002; Hyten, 2017; Prue & Fairbank, 1981; Redmon & Dickinson, 1990). Yet, no systematic and extensive research review of OBM has been conducted. The apprehension of research related to OBM can provide more information about techniques with strong support and opportunities for future research (Gravina et al., 2018).

The purpose of this study is to explore historical events and previous studies that contributed to the development of the OBM field in the order of their occurrence for a creative synthesis. We compare OBM interventions that improved employee performance and contributed to OBM over time in organizational settings. The approach is based on the historical series of papers, various kinds of methods in the context that generate historical narratives in the OBM subject. Such an order of historical development provides the way in which the field of OBM evolves and leads to the development of the OB field. The term organization management is arguably more recent than that of organizational history and has been used to a lesser degree than the latter (Booth & Rowlinson, 2006; Maclean et al., 2016; Mills et al., 2016; Rowlinson et al., 2014).

The outline of the paper would be like this; the first section of the paper presents the origins and early development in the OBM field, such as various studies related to OBM, followed by Skinnerian Behaviorism Application and Analysis. The next section provides various OBM applications by incorporating the many discourses on OBM. The study is sequential in its nature and scope. It seeks to motivate OBM researchers to rethink OBM practices with the changing organizational needs in the light of OBM literature. It urges a redefinition of our most fundamental ideas of organizations, their objectives, strategies, technologies, structures and culture.

## 2. Method and Articles Inclusion Criteria

For this study, research articles were selected from early behavior analytics articles that were published between 1950 and 1980. All articles were reviewed, i.e., the title, abstract, and method chapters, to determine whether they are in line with the objective criteria for this article. The first criterion was whether articles had elements or characteristics related to experiments

in nature, meaning that an intervention was added in an attempt to change behavior. On the other hand, studies just focusing on descriptives, i.e., non-experimental designs, correlational techniques, were excluded. As the second criterion, it was required that the OBM intervention was applied with the goal of improving employee and/or supervisor performance and that it was implemented in an organizational setting. This meant that the researchers had to record dependent measures of staff behavior in an applied setting in which human interventions were executed. By and large, after an extensive review, 55 articles were qualified as meeting the criteria for this study that are provided in Table 1.

Year	Contribution
1954	Skinner, B.F. The science of learning and the art of teaching. <i>Harvard Educational Review</i> , 24, 86–97.
1958	Skinner, B.F. Teaching machines. <i>Science</i> , 128, 969–977.
1959	Ayllon, T., & Michael, J. The psychiatric nurse as a behavioral engineer. <i>Journal of the Experimental Analysis of Behavior</i> , 2, 323–334.
1961	Aldis, O. Of pigeons and men. <i>Harvard Business Review</i> , 39, 297–300.
1965	Nathan, P.E., & Wallace, W.H. An operant measure of TV commercial effectiveness. <i>Journal of Advertising Research</i> , 5, 13–20.
1966	Brethower, D.M., & Rummler, G.A. (1966). For improved work performance: Accentuate the positive. <i>Personnel</i> , 43, 40–49.
1969	Nord, W.R. Beyond the teaching machine: The neglected area of operant conditioning in the theory and practice of management. <i>Organizational Behavior and Human Performance</i> , 4, 375–401.
1970	Nord, W.R. Improving attendance through rewards. <i>Personnel Administration</i> , 33, 37–41.
1970	Winters, L.C., & Wallace, W.H. On operant conditioning techniques. <i>Journal of Advertising Research</i> , 10, 39–45
1971	Adam, E.E., Jr., & Scott, W.E. The application of behavioral conditioning techniques to the problems of quality control. <i>Academy of Management Journal</i> , 14, 175–193
1971	Gupton, T., & LeBow, M. Behavior management in a large industrial firm. <i>Behavior Therapy</i> , 2, 78–82.
1971	Laird, D. Why everything is all loused up, really (and what to do about it). <i>Training in Business and Industry</i> , March, 52–55. (Emery Air Freight).
1971	Luthans, F., & White, D. Behavior modification: Application to manpower management. <i>Personnel Administration</i> , 34, 41–47.
1971	New Tool: “Reinforcement” for good work. <i>Business Week</i> , Dec. 18, 76–77. (Emery Air Freight).
1971	Schmitt, D.R. Effects of intermittent reinforcing consequences on task choice. <i>Psychological Reports</i> , 28, 771–776.
1971	Sorcher, M.A. A behavior modification approach to supervisor training. <i>Professional Psychology</i> , 2, 401–402.

Table cont.

1972	Jablonsky, S.F., & DeVries, D.L. Operant conditioning principles extrapolated to the theory of management. <i>Organizational Behavior and Human Performance</i> , 7, 340–358.
1972	Murphy, J. Is it Skinner or nothing?. <i>Training and Development Journal</i> , 26, 2–8.
1972	Performance audit, feedback, and positive reinforcement. <i>Training and Development Journal</i> , 26, 8–13. (Emery Air Freight).
1972	Where Skinner's theories work. <i>Business Week</i> , Dec. 2, 64–65. (Emery Air Freight).
1972	Whyte, W.F. Skinnerian theory in organizations. <i>Psychology Today</i> , April, 67–68, 96, 98, 100.
1972	Yukl, G.A., Wexley, K.N., & Seymore, J.D. Effectiveness of pay incentives under variable ratio and continuous reinforcement schedules. <i>Journal of Applied Psychology</i> , 56, 19–23.
1973	At Emery Air Freight: Positive reinforcement boosts performance. <i>Organizational Dynamics</i> , 1, 41–50
1973	Conversation with B.F. Skinner. <i>Organizational Dynamics</i> , 1, 31–40.
1973	Goldstein, A.P., & Sorcher, M.A. Changing managerial behavior by applied learning techniques. <i>Training and Development Journal</i> , 27, 36–39.
1973	Hermann, J.A., de Montes, A.I., Dominguez, B., Montes, F., & Hopkins, B.L. Effects of bonuses for punctuality on the tardiness of industrial workers. <i>Journal of Applied Behavior Analysis</i> , 6, 563–570.
1973	Luthans, F. The contingency theory of management. <i>Business Horizons</i> , 16, 67–72.
1973	Luthans, F., & Kreitner R. The role of punishment in organizational behavior modification (O.B.Mod). <i>Public Personnel Management</i> , 2, 156–161.
1973	Luthans, F. & Lyman, D. Training supervisors to use organizational behavior modification. <i>Personnel</i> , 50, 38–44.
1973	Luthans, F., & Ottemann, R. Motivation vs. learning approaches to organizational behavior. <i>Business Horizons</i> , 16, 55–62.
1973	Mawhinney, T.C., & Behling, O.C. Differences in prediction of work behavior from expectancy and operant models of individual motivation. <i>Academy of Management Proceedings</i> , 383–398.
1973	Senger, J. A challenge from behavioral science: Can you eliminate the negative? <i>Supervisory Management</i> , 18, 15–20.
1974	Hamner, W.C. Reinforcement theory and contingency management in organizational settings. In H.L. Tosi & C.W. Hamner (Eds.), <i>Organizational behavior and management: A contingency approach</i> . Chicago: St. Clair Press.
1974	Luthans, F., & Kreitner, R. The management of behavioral contingencies. <i>Personnel</i> , 51, 7–16.
1974	Orphen, C. The effect of reward contingencies on the job satisfaction-task performance relationship: An industrial experiment. <i>Psychology</i> , 9–14.
1974	Parsons, H.M. What happened at Hawthorne?. <i>Science</i> , 183, 922–932.

Table cont.

1974	Pedalino, E., & Gamboa, V.U. Behavior modification and absenteeism: Intervention in one industrial setting. <i>Journal of Applied Psychology</i> , 59, 694–698.
1975	Adam, E.E., Jr. Behavior modification in quality control. <i>Academy of Management Journal</i> , 18, 662–679.
1975	Bobebe, H.K., & Buchanan, P. Behavior modification: A tool for getting things done. <i>The Business Quarterly</i> , 40, 37–41.
1975	Kreitner, R. PM – A new method of behavior change. <i>Business Horizons</i> , 18, 79–86.
1975	Lazer, R.I. Behavior modification as a managerial technique. <i>Conference Board Record</i> , 16, 67–72.
1975	Mawhinney, T.C. Operant terms and concepts in the description of individual work behavior: Some problems of interpretation, application and evaluation. <i>Journal of Applied Psychology</i> , 60, 704–712.
1975	McAdam, J. Behavior modification: A human resource management technology. <i>Management Review</i> , 64, 24–30.
1975	Yukl, G.A., & Latham, G.P. Consequences of reinforcement schedules and incentive magnitudes for employee performance: Problems encountered in a field setting. <i>Journal of Applied Psychology</i> , 60, 294–298
1976	Brown, P.L. Behavior modification: A significant new tool for managers and supervisors. <i>Executive Housekeeper</i> .
1976	Hamner, W.C., & Hamner, E.P. Behavior modification on the bottom line. <i>Organizational Dynamics</i> , 3, 3–21.
1976	Kim, J.S., & Hamner, W.C. Effect of performance feedback and goal setting on productivity and satisfaction in an organizational setting. <i>Journal of Applied Psychology</i> , 61, 48–57.
1976	Luthans, F., & Martinko, M. An organizational behavior modification analysis of absenteeism. <i>Human Resource Management</i> , 15, 11–18.
1976	Marholin, D., & Gray, D. Effects of group response-cost procedure on cash shortages in a small business. <i>Journal of Applied Behavior Analysis</i> , 9, 25–30.
1976	Nichols, G. A model for supervisors' use of behavior modification techniques. <i>Occupational Hazards</i> , 38, 86–88
1976	Nord, W.R. Behavior modification perspective for humanizing organizations. In H. Meltzer & F.D. Wickert (Eds.), <i>Humanizing organizational behavior</i> . Springfield, IL: Charles C. Thomas.
1976	Rotondi, T., Jr. Behavior modification on the job. <i>Supervisory Management</i> , 18, 15–20.
1976	Yukl, G.A., Latham, G.P., & Pursell, E.D. Effectiveness of pay incentives under variable ratio and continuous reinforcement schedules. <i>Personnel Psychology</i> , 29, 221–231.
1978	Sulzer-Azaroff, B. Behavioral ecology and accident prevention. <i>Journal of Organizational Behavior Management</i> , 2(1), 11–44

Tab. 1. Articles that were precursors to the field of OBM, chronologically. Source: Dickinson, 2001.



### 3. The Matter of History – Early Developments in the OBM

In this section, we describe the historic turn in OBM to locate its origins. The historic origins started with a prominent article by Ayllon and Michael (1959). The other studies of early development started from the work of Prue and Fairbank (1981), Kreitner (1982), Luthans and Kreitner (1985), Hayes and Brownstein (1986) and Skinner (1988). They have clear goals in their studies, such as prediction and control of behavior, with an emphasis on control, which are the objectives of behavior analysis. Skinner's (1988) application of behavioral principles is the turning point for the application of the science of behavior at work. In the following section, we provide a depiction of studies that trace back to the origins of the OBM field.

Ayllon and Michael (1959) published a well-known study called "The Psychiatric Nurse as a Behavioral Engineer". In this work, the scholars studied the behavior that leads to a person's admission to a mental hospital that involves danger to others due to a change caused in their usual mode of behaving. They showed nurses in a mental health facility applying behavioral techniques to change the behavior of patients in the hospital. There were a series of experiments where simple techniques applied by staff had a significant impact on the behavior of patients in the hospital. Before these experiments, medications were the primary option for treatment but not the practice at the health facilities. The insight here is that employers can teach staff clear goals to manage behavior at work so that they can cause the behavior of others. For instance, one of the situational experiments involved nurses, where they had the challenge to face patients entering their office and disrupting them. It was around 16 times a day when patients used to enter the nurse's office and disturb them. Accordingly, Ayllone and Michael (1959) coached the nurses to ignore the patient when they came into their offices. The instruction was explicit; nurses did not have to make eye contact and speak to the patients when they walked in their office. After one week, patient visits went down from 16 times to almost 0. This study indeed demonstrated the power of coaching that changed the behavior of the staff. These experiments were held at the beginning of the 60s and changed the behavior of workers at work settings. These experiments provide us with the developments and give insight about the early development and applications of tools in OBM.

#### 3.1. Organizational Behavior Modifications

Luthans and Kreitner (1985) published a book on OB Modification, which was a significant contribution to the OBM literature. In the book, the authors highlighted the underlying processes of the individual's learning process. They provided means of how to control and manage human resources within the organizational context to achieve various individual



and organizational outcomes such as higher productivity, performance, less turnover and absenteeism (Luthans & Kreitner, 1985). They argue that managers are the behavioral scientists who actively try to balance their employees' human potential with the demands of upper management and the shareholders. The different sections in the book discussed positive controls (achievement or sense of accomplishment, responsibility, the opportunity for personal growth, recognition, status, monetary reward, etc.), negative controls (punishment and its uses), and shaping, modeling, and self-control. The book ended with the ethical issues involved in all this behavior modification within organizations and a pertinent discussion of possible future developments in this field. The scholars worked hard to give their work the scholarly and scientific scope that aligns the behavior of people according to the work settings.

Skinner's behaviorism was a prominent and successful experimental study that revealed new phenomena and methods (Skinner, 1988). He suggested that private events, including thoughts and feelings, should be subjected to the same controlling variables as observable behavior, which became the basis for his philosophy called "radical behaviorism" (Chiesa, 1994; Dillenburger & Keenan, 2009). Skinner's approach recognized that a historical system, an organism, has a state as well as sensitivity to stimuli and the ability to emit responses (Staddon, 2001). He revealed how behavior changes through system analysis in an organization. One element in the system is 'behavior' the change of which is based on internal and external feedback loops. In earlier studies and even today, most common solutions found in OBM practice involve feedback and reinforcement as it comes from programmed instructions.

One of the earlier studies and the best example was the interventions conducted at Emery Freight Corporation. Edward J. Feeney (1972) implemented a series of applied experiments at Emery Freight Corporation aimed at increasing the sales and improving utilization of large bulk pack shipping and saved around \$3 million (Catania & Harnad, 1988; Feeney, 1972). So at the end of the 70s, there were plenty of articles on this describing how the use of feedback and reinforcement can save you millions of dollars at work – lots of research articles published in the early 70s on reinforcement and Skinner's theories at work.

By the 1980s, over 100 articles, books and interventions on OBM had been published in various journals, and OBM consulting firms had been established. *Journal of Organizational Behavior Management (JOBM)* started in 1977, and Aubrey Daniels was the first editor. The OBM journal gave a direction and an outlet to the OBM field, and this was a critical interval that produced research studies in this management domain. The courses related to the management field and behavioral training programs directed researchers and students toward a focus on OBM scholarships.

### 3.2. Areas of Practice and Research in OBM

Scholars in the OBM discipline practice in a variety of ways in various domains. It depends on the environment they operate in and the culture they follow and the language they speak in the organizations' work settings. Some organizations' sections are broadly constructed as performance improvement, leadership, training and development, safety, culture change and mergers and acquisitions. They apply behavioral principles to help people to change their behavior and align with the behavior of the new organizational culture (Kreitner, 1982; Lim & Oah, 2018). In previous research studies, most outcomes are related to efficiency, service quality, operations improvement, customer satisfaction, safety behavior, training and education. There are many studies in these areas of management that discuss behavior improvement in organizations (e.g. Church et al., 2019; Gong et al., 2019; Ramani et al., 2019). The purpose of these research scholarships, more or less, is to bring behavioral knowledge for those who are working in the industry to help them understand the impact of behavior and the impact of their behavior on the business.

### 3.3. OBM Applications

The primary purpose of OBM applications is to analyze, isolate, and modify environment events that affect performance (Tierens et al., 2019). Precise interventions allow managers to influence employee behavior in organizational environments effectively. Although the primary solutions used in OBM are based on the scientific approach, the majority of studies adopt either antecedent or consequence-based interventions.

The two types of OBM interventions are known as antecedent-based interventions (Jaworski & Kohli, 1993; Marrone et al., 2007) and consequence-based interventions (Chiaburu et al., 2013; Kirkman & Shapiro, 2001; Seibert et al., 2011). Antecedent-based interventions consist of task clarification, equipment modification, goal setting, promoting and training. Task clarification deals with clearly formulating the employee's job descriptions. Equipment modification involves altering the equipment used for tasks. Goal setting consists in the formulation of goals that could achieve performance standards. Prompting involves performing or continuing to perform an activity, whereas training involves enhancing employees' knowledge, skills, abilities to make them better perform the given tasks.

On the other hand, the consequence-based interventions consist in feedback, praise and monetary and nonmonetary incentives. Feedback involves letting the employees know about their previous performance either formally or informally (e.g., verbal, written, graphic) through a mediator suchlike manager, supervisor or a fellow employee. Feedback is the most common intervention used in OBM practices. Monetary and nonmonetary incentives involve both tangible or intangible outcomes provided by the organization

to their employees in the form of salary, health and safety, equipment, bonuses, etc.

## **4. Tools in OBM**

### **4.1. The Antecedent-Behavior-Consequence (ABC) Analysis**

ABC analysis is a tool for analyzing behavior. It stems from the field of psychology, where it is used as a tool for the understanding of behavior in general and organizational behavior in particular (Nijhof & Rietdijk, 1999). ABC analysis is a frequently used analysis where it involves looking at a specific behavior and then delineating the antecedents that come before it. The consequences are the things that come after it (Seibert et al., 2011). Prue (1981) wrote an article in *JOBM* entitled “Performance Feedback in Organizational Behavior Management”. Aubrey Daniels (1989) made it famous, turned it into an acronym, which they call PICNIC analysis. It is straightforward to use, and PICNIC just refers to the ratings of valence timing and likelihood. PICNIC is just like a science that treats behaviors of people with the same rigor.

A well structured ABC analysis analyzes the three-term contingency for competing or alternative behaviors (those exhibited instead of the target behavior). Ramani et al. (2019), Doll et al. (2007), and Gong et al. (2019) used the PICNIC analysis to identify the contingencies dictating the lack of cleaning behaviors in various settings (Fante et al., 2007).

### **4.2. Behavioral Engineering Model (BEM)**

BEM model is not so popular, but it is still widely used in some areas (Cicerone et al., 2005; Cox et al., 2006). It took the ABC model and combined it with two more levels such as environment level and performance level. You ask questions from the employee’s perspective, which means checking whether I have the right knowledge and skills or resources to perform the job. It is just a quick and informal assessment that you can conduct.

It is designed to optimize behavioral and environmental factors. Every member strives to achieve the optimum and excellent performance of individuals and organizations with cost-optimized inputs. Management can influence these factors to effectively and scientifically implement the BEM model in any organization. Further, BEM has explained that lack of performance can be attributed to either the behavior deficiency or lack of an environment that helps develop that behavior (Luthans & Kreitner, 1985).

### **4.3. Performance Diagnostic Checklist (PDC)**

PDC is a combination of both of the earlier two that came before it with just a different way of asking the question to get a user closer to

reliable informant assessment (Austin & Wilson, 2002; Pampino Jr et al., 2004). Questions in this tool are included from antecedents in the work environment, questions on equipment and process in the work environment, the skills and abilities and consequences that the performer might or might not be experiencing. Answering the questions leads to a particular solution. So the tool is successfully applied to undergraduate students who have never come into contact with the organizations under study to come up with practical solutions.

## 5. Discussion and Practical Implications

This study aimed to provide an in-depth analysis and review of the OBM discipline. We want our readers to understand that the OBM discipline has produced significant evidence through behavior analytic (BA) interventions; it has the capability to modify human behavior at workplaces. The current study provided various insights about the initial phases of OBM discipline, which started in the 1950s and ended in the early 1980s. Furthermore, it elaborates on *how* OBM interventions facilitated change over time in human behavior at workplaces.

The term behavior modification became obsolete from 1990 onwards as it briefly referred to the revival of methodological behaviorism in the 1970s and early 1980s (Mace & Critchfield, 2010; Pelios et al., 1999). Applied behavior analysis, the term that replaced behavior modification, has emerged into a dynamic OBM field. The behavior analysis continues to develop in various environments around the world. In terms of motivation, there remains a keen interest in the variety of human motivational behavior factors, (e.g., Madsbjerg & Rasmussen, 2014; Skinner, 1988). Some may go as far as suggesting that the current rapid change in organizational behavior could be partly attributed to some of these studies that are related to it (Barrett, 2019).

Today, interests are wide-ranging among behavior analysts. The interests are expanding and include everything from developmental disabilities and autism to cultural psychology, clinical psychology, verbal behavior, Organizational Behavior Management (OBM; behavior analytic I–O psychology). OBM has left a strong influence within behavior analysis and it provides useful assessment tools to assist behaviors, as evidenced by the formation of the OBM Network and the influential Journal of Organizational Behavior Management (JOBM; recently rated as the 3rd highest impact journal in applied psychology by ISI rating).

Organizations could benefit from OBM interventions used over the past years and learn new behaviors using multiple components, i.e., antecedents and consequences interventions. In this regard, organization managers develop a friendly environment for their subordinates and arrange training that enables them to use their skills correctly and results in the best out-

comes. Later on, through efficient monitoring, feedback should be provided where they can improve efficiently and effectively. Employees who have modified behaviors at workplaces need to be awarded benefits in the same way (Church et al., 2019; Gong et al., 2019).

Following the historical overview, it is evident that OBM practices are required in all domains such as education, management, administration, and so forth, to make them efficient and effective. At the same time, OBM practices help an individual to understand how to carry one's tasks/activities within the organization to improve business results. Some reflections highlight the need for OBM practices for the successful functioning of educational institutes. OBM could benefit educational institutes through behavioral modifications to reinforce desired behaviors and reduce undesirable behaviors to structure an individual behavior to comply with the desired standards set by the management. Implementing OBM in education contributes, to a significant extent, to enabling students to work cooperatively with each other. For the successful functioning of educational institutions, individuals must integrate effectively. While technology in education is considered imperative, that has contributed to making learning manageable. Effective management of technology will lead to the success of organizations as well as individuals. Furthermore, mainly those organizations would be more successful than others that maintain their flexibility, continually make improvements in their operations and quality with innovative products and services.

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