Similarities and Differences Between Applied Behavior Analysis and Positive Behavior Support

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Abstract

This paper is a literature review, which synthesized and analyzed numerous articles about applied behavior analysis (ABA) and positive behavior support (PBS). It started with the history of each term. Then it included the definitions and the characteristics for both of them. Additionally, this paper explored the similarities and differences between ABA and PBS, and it offered some recommendations for future research that could be written regarding ABA and PBS.

Similarities and Differences Between Applied Behavior Analysis and Positive Behavior

Support

Applied Behavior Analysis (ABA) is a scientific approach to improving and changing human behaviors, to bring them into closer accord with socially acceptable norms. It includes a range of procedures that count as evidence-based practice and effective methods for students with or without disabilities in research literature such as reinforcement, discrete trial teaching, and task analyses. Furthermore, not only does ABA address the educational and behavioral needs of students in special education programs, but also, numerous of the effective special education services originated from ABA (Trump, et al., 2018). Cooper, et al., (2007), stated that "Applied Behavior Analysis (ABA) is the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variable responsible for behavior change" (p. 20).

Positive Behavior Support (PBS) is defined as a framework that aims to provide effective treatments and services for individuals who are exhibiting undesired behavior by redesigning their living environments to reduce their challenging behaviors and improve the individuals' quality of life (Anderson & Freeman, 2000; Carr et al., 2002). Moreover, PBS is an approach for decreasing aberrant behaviors by offering three tiers of interventions and prevention to cover all individuals' needs in school or program settings (Benedict et al., 2007).

This paper presents an introduction to applied behavior analysis and positive behavior support, reviews of the literature that have discussed these two terms for several years to identify what is currently known and what is not known about ABA and PBS and demonstrates similarities and differences between them. Also, it provides several recommendations for future research and literature review that could be done regarding ABA and PBS.

Literature Review

Origins

Throughout the 1950s and the early 1960s, the experimental analysis of behavior method was used by researchers to discover whether the behavior trials in the clinic with nonhuman subjects could be a benefit for humans. In the 1960s, researchers started to apply the principle of behavior to develop socially appropriate behaviors; however, they faced some challenges which were centered in the laboratories. As a result, they needed to create a new experimental procedure. Nevertheless, during this period, many essential behavior applications were discovered, such as token reinforcement systems and curriculum design (Cooper et al., 2007).

Throughout the 1960s and the early 1970s, numerous university programs in Applied Behavior Analysis began, and these programs are considered significant contributions that assist the field to be grown. Researchers in the field consider 1968 to be the official start of contemporary applied behavior analysis based on two essential events. First, the *Journal of Applied Behavior Analysis JABA*, the first journal in applied behavior analysis in the United States, was first published in 1968. This journal was marked as a flagship in the discipline since its beginning. Second, in 1968 Donald M. Baer, Montrose M. Wolf, Todd R. Risley, who are founding fathers of the new field, published their article, "Some current dimensions of applied behavior analysis," which outlined the principal criteria that guideline applied behavior analysis field (Cooper et al., 2007).

Horner et al. (1990) stated that nonaversive behavior management appeared due to the professionals' debate about using aversive stimuli with people who have severe disabilities and suffer from challenging behaviors. Besides, the authors labeled nonaversive behavior management procedures, "Positive Behavior Support PBS" (Horner et al., 1990). Moreover,

there are two main reasons for PBS emersion: an increase in the concerns of using aversive procedures and the desire to have notable and continuous outcomes (Weiss et al., 2010). Anderson and Freeman (2000) mentioned that because of the high number of people who shift out of institutions and into the less restrictive setting, there had been a need for a method such as nonaversive behavior management to change undesired behaviors.

Furthermore, two significant events assist the dissemination of positive behavior support—the first issue of the *Journal of Positive Behavior Interventions* in 1999, and the inclusion of positive behavioral support in the federal Individuals with Disabilities Education Act (IDEA) in 1997 (Johnston et al., 2006).

Applied Behavior Analysis and Positive Behavior Support

Analysis of the literature shows it is clear that there is extensive overlap between applied behavior analysis and positive behavior support; however, numerous specialists have different perspectives on how to clarify the relationship between ABA and PBS (Carr & Sidener, 2002; Johnston et al., 2006; Weiss et al., 2010). According to Anderson and Freeman (2000), PBS provides an approach to support individuals with challenging behaviors, and this approach is compatible with ABA principles. Similarly, Carr and Sidener (2002) highlighted that some professionals consider PBS as a service delivery framework of behavior analytics since the majority of PBS features are basic practices for ABA. Johnston et al. (2006) asserted this trend by clarifying that the separation of PBS from ABA is not supported by sufficient evidence. On the other hand, some authors argue that even though PBS is historically rooted in ABA, it is considered a new discipline (Carr & Sidener, 2002). Likewise, Johnston et al. (2006) pointed out that "PBS was not only newer than, but also superior to, ABA" (p. 61). They consider PBS as a unique system with its own identity.

Characteristics

According to Cooper et al., (2007), the seven dimensions of ABA, which are mentioned by Baer et al., (1968), have continued to be the significant criteria to define and judge the value of ABA. The dimensions of ABA are applied, behavioral, analytic, technological, conceptually systematic, effective, and generality. To illustrate, applied behavior analysis is considered applied research because it selects the behaviors that have an impact on improving people's lives. Likewise, ABA is labeled behavioral, which means it utilizes precise tools of measurements to compile accurate records of the behaviors that changed. The research in ABA is analytic since the experimenter has been able to identify the functional relationship between the intervention and the change in the behavior. Technological means that all procedures in ABA should have adequate details, which gives the reader a chance to apply the application in the future and get the same results. Also, ABA research should be conceptually systematic, which means it takes the description procedure from the basic principle of behavior. To be an effective application in ABA, the results of the improvements to behaviors need to be practical for the clients. The last dimension of ABA is that the changing in the behavior has to generalize to other environments or separate to other behaviors. (Baer et al., 1968; Cooper et al., 2007).

On the other hand, there are three main features of PBS: "(a) PBS operates from a person-centered values base, (b) PBS recognizes the individuality of each person, and (c) PBS works towards meaningful outcomes through comprehensive assessment and multifaceted interventions" (Carr & Sidener, 2002, p. 246). The first feature of PBS is operating the approach from a person-centered value. PBS offers the services according to individuals' preferences, and it empowers individuals to make decisions by involving their families and friends (Anderson & Freeman, 2000; Carr & Sidener, 2002). Second, PBS emphasizes that individuality is right for

each person, unlike most of the care services systems available for students with disabilities (Anderson & Freeman, 2000). Third, the professionals consider PBS intervention as a successful procedure by measuring the impact on individual life and society. In addition, PBS is distinguished as treatment packages which include assessment, caregiver training, teaching new skills, and specific treatment for challenging behaviors. However, not all of the intervention plans need to present these components (Anderson & Freeman, 2000; Carr & Sidener, 2002).

Similarities and differences between applied behavior analysis and positive behavior support

The PBS approach focuses on specific values to apply its services such as dignity, meaningful outcome, individualization, normalization, inclusion, social validity, person-center planning, and stakeholder participation. Similarly, these values have been accepted in ABA services (Johnston et al., 2006). Both ABA and PBS emphasize altering behaviors that are critical for the individual and his or her society (Carr & Sidener, 2002). Also, one of the ABA dimensions is generality, which means the ABA approaches aims to see the behavior changes in other environments and other times; in the same way, generality is one of PBS goals (Carr & Sidener, 2002).

On the other hand, PBS primarily pays attention to intervention based on antecedent stimuli; however, that does not mean the consequences are not significant in this approach. In contrast, ABA considers the antecedents as well as the consequences. It paid equal attention to the three-term contingency: antecedent, behavior, and consequences (Johnston et al., 2006). Carr and Sidener (2002) mentioned that PBS depends on positive reinforcement in its procedure instead of punishment. In the ABA approach, the expert asserts that it is crucial to use reinforcement as an intervention instead of punishment unless it is necessary for the case.

Studies that have been reviewed, for example Carr and Sidener (2002); Johnston et al. (2006); Weiss et al. (2010), make clear that there has been an ongoing controversy about ABA and PBS as to whether they should be considered separate disciplines, or a single integrated discipline. To illustrate, the practitioners who said ABA and PBS overlap, thought that the science behind both ABA and PBS focuses on behaviors. They consider PBS as an extension field of ABA, while other practitioners said that PBS emphasizes on the life quality of the individual and his or her choices (Weiss et al., 2010).

Furthermore, studies such as Anderson and Freeman (2000); Cooper et al. (2007); Trump et al. (2018) have demonstrated the history, definitions, characteristics, similarities and differences, and implementation for ABA and PBS. Applied behavior analysis is defined as "the application of behavior analytic principles to socially significant behavior" (Weiss et al., p. 429), whereas positive behavior support is defined as "a framework for establishing a positive school culture with tiered levels of social and behavioral support" (Sugai & Horner, 2019, p. 120). To implement ABA, there are plenty of procedures used by practitioners such as reinforcement, discrete trial teaching (DTT), task analyses, video modeling, and the Picture Exchange Communication System (Trump et al., 2018). On the other hand, there are three trails to implement PBS: first, adapting the environment on a wide-school level to prevent problem behaviors. Second, accommodating the instruction for a group of students who are at risk level to prevent problem behavior. Third, providing assessment and treatment of problem behaviors for students who are on the individual level (Weiss et al., 2010).

According to Filter et al., (2008), future research should focus on identifying the relationship between ABA and PBS to determine how these approaches could contribute to solving an individual's problems. Also, they mentioned that the lack of interaction between ABA

adherents and PBS adherents which leads to misperception on issues relevant to ABA and PBS practice; as a result, Filter et.al., (2008) suggested that researchers should present their approach at the other researchers' conventions. For example, PBS researchers should present on Association for Behavior Analysis International (ABAI) conventions.

The rest of the research that has been reviewed in terms of the future of ABA and PBS—such as Weiss et al. (2010)—contains no suggestions as to the future of the similarities and differences between ABA and PBS; however, the author of the current review did find suggestions about future research among reviewed articles that discussed ABA or PBS separately.

Poling (2010) wrote an article about the future of behavior analysis in which he indicated numerous concerns about the field, and in which he suggested that researchers should, in the future, focus their studies on covering these concerns. For example, he suggested that both the ABA field and behavior analysts could better market the field and themselves, which could result in the field becoming more widespread. Also, he mentioned that the majority of ABA research focuses on autism spectrum disorders (ASD), while ABA treatment is also useful and helpful for a wide range of individuals with different diagnoses. Poling (2010) stated that there is much-applied research that is not applied, so future researchers need to apply them.

Clarke et al., (2018) provided some suggestions for future research after they reviewed 217 articles that were published between 1999 and 2016 in the *Journal of Positive Behavior Interventions (JPBI)* about positive behavior support (PBS). First, future research should take into account the importance of focusing on rigorous measurement to identify the problem behaviors, the treatment that could be used to change the behaviors, and the effect of changing behaviors on the quality of an individual's life. Second, because the majority of the research is

conducted by typical people under typical contexts, the authors suggested that treatment should be conducted in settings in which undesired behaviors usually occur, and by the same people who expect to apply the procedure. The authors' contention is that this will help to generalize and maintain the behavior being changed. Third, future research should pay attention to the variable system to have sufficient practices. Lastly, it is suggested that emphasis on the implementation process will help the field of PBS to become broader and more efficient (Clarke et al., 2018; Horner & Sugai, 2018).

To summarize, this paper has reviewed several articles about applied behavior analysis and positive behavior support. It has defined each term, and it has demonstrated the history, the catachrestic, the relationship, and the similarities and differences. Also, it has included what is currently known and not known about ABA and PBS.

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