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# *Social Validity Measurements in Classroom Intervention for Students with ADHD*

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***Abstract:*** Whereas social validity is an important aspect of interventions, this study reviewed how the concept of social validity has been applied in intervention studies, especially those that are implemented to support kids with ADHD. Interventions with good social validity are more likely to be implemented by educators and be accepted by students. Existing summative research suggests that social validity data is not a primary interest of most researchers, and only about one-third of the intervention studies included social validity as an outcome measurement. While measurement of acceptance of the intervention is usually included in the studies, there was a lack of attention paid to evaluating the intervention's short-term goals and long-term outcomes. Among the stakeholders, the interventionists and teachers are the primary informants for social validity data, whereas student feedback is often left uncollected. Future research should address the concern of social validity better, using multiple measurements and collecting more comprehensive data from different stakeholders.

***Keywords:*** Social Validity, Intervention, ADHD

## 1. Introduction

Attention-deficit/hyperactivity disorder (ADHD) is a common neurodevelopmental disorder that occurs in approximately 7.2% of children and youth.[1] The educational performance of Children with ADHD is commonly impaired in academic settings.[2] Abundant research has been invested in supporting students with ADHD over the last decades. Students with ADHD receive accommodation and intervention to remove barriers to learning in the school setting. However, the best practices remain unclear. While research usually focuses on the effectiveness of the intervention, only a limited number of studies have invested in the social validity of the existing strategies.[3] Social validity is a term that originated in the applied behavior analysis field. It refers to the acceptability and importance of the intervention goals, procedures, and outcomes.[4] Duplicating the research findings in real-life environments is effortful, and practitioners face barriers such as miscommunication, lack of support, and lack of public awareness.[5] Interventions with strong social validity are more likely to be used by teachers and students in the school, even when known to be effective.[6]

However, a lack of attention paid to social validity. This review will review the construction of social validity and summarize the methods of social validity measures in past research. The purpose is to better understand the nature of social validity in ADHD classroom interventions to illustrate a need for compelling research on social validity, especially its usage in intervention studies involving the welfare of students with ADHD.

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## 2. Importance of Goal Selection

First, social validity concerns about intervention goals. Specifically, whether the behavior replacement of the students is deemed socially appropriate.[7] Rosen and Proctor distinguished the different types of treatment goals. An instrumental goal is the welcomed outcome of the treatment. An ultimate goal is assumed to be achievable by achieving the instrumental goals.[8] It is the reason the client is seeking treatment. Classroom interventions target pro-educational behaviors such as sitting still and increase on-task behavior. Such specific and measurable goals are considered instrumental goals. However, achieving these goals does not guarantee an improvement in educational performance. The topic of social validity is relevant to support students with ADHD because students with ADHD can be emotionally overactive, easily frustrated, and have difficulties initiating tasks,[1] but interventions are more focused on changing behaviors and developing skill sets. This raises the question of whether students can apply their take-away in real environments. For instance, if a student frequently leaves their seat during instruction, helping them build the sitting still skill may be insufficient to access the classroom material. An incompletion of the ultimate goal indicates other barriers exist in the student's learning environment, and researchers can use those data to understand better how to improve the intervention or what additional interventions are needed.

One meaningful goal for students with ADHD is to learn appropriate classroom behaviors associated with students' educational outcomes. For instance, Cashiola et al.'s study investigated the relationship between preschoolers' classroom behaviors and language and literacy skills, and results showed that higher levels of teacher rating on overactive behaviors are associated with lower levels of receptive language skills such as listening comprehension.[9] Meaningful goals should be selected for interventions in order to improve the performance of students with ADHD at school.

## 3. Acceptability of Intervention Procedure

Second, social validity calls for the social acceptability of the intervention procedure.[7] In the last decades, research has provided strong evidence and detailed guidelines in support of students' educational performance.[10] However, the research-to-practice gap exists where the practices are rarely adapted and implemented with high fidelity in school environments.[11] Sofaras Researchers take the role of interventionist in most studies. The interventions may not be pauseable for teachers.[12] The acceptability of classroom interventions may be affected by various implementation barriers. In exploring the potential barriers, Collier-Meek finding indicated that most participants reported difficulties in delivering are aligned with the implementation.[13] For instance, multiple participants reported it was hard to address the problem behavior during the implementation. The measure of procedure acceptability is crucial for us to predict the acceptability of an intervention in the classroom. A higher level of procedure acceptability reported by the implementor indicates fewer barriers other implementors may encounter in delivering interventions. Additionally, multiple studies found evidence that high-acceptability interventions are more likely to be delivered with high fidelity.[14]

Students also hold opinions about the interventions implemented on them. As the acceptability of the intervention and its effectiveness can be associated, obtaining students' feedback on intervention acceptability is important. Engagement level is one mediator of students' outcomes, while students with ADHD generally are less engaged in the classroom.[15] In Harrison et al.'s study, 64 middle school students with ADHD were randomly assigned to accommodations or intervention groups, and the intervention group was further divided into two subgroups based on students' willingness to receive the intervention. Experiment results showed that students willing to accept interventions are more likely to engage during the intervention and have better outcomes in this study. Additionally,

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those individuals willing to follow interventions demonstrated a higher level of engagement during instructions and individual work and a higher level of accuracy in their work.[11]

The acceptability of procedures is predominantly salient among the social validity measures. Still, reviews reveal that only about one-third of the recent intervention studies reported acceptability,[16] consistent with previous studies' findings.[17][18] This unchanged trend of addressing acceptability in studies may indicate that social acceptance has yet to raise the attention of researchers. While multiple acceptability instruments have been published and tested, only about one-third of the studies included measurement of acceptability. Among those that reported acceptability data, self-reporting is the most common acceptability evaluation method used in studies, and less than ten percent of the studies used other measurement methods, such as interviews.[16] Multiple acceptability instruments have been developed in order to help researchers better understand the relationship between implementation and acceptability. As an illustration, the Intervention Rating Profile (IRP) is a 20-item scale intended to measure the acceptability of a classroom behavioral intervention.[19] The Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure (FIM) are sets of 4-question short surveys accessing different domains of social validity.[20] However, about half of the studies used acceptability instruments developed by researchers, and most of them left their reliability untested. While using a published instrument, two-thirds of researchers adapted the original version of the scales to fit their intent better.[16] Indeed, research indicates IRP and its variation, the Children's Intervention Rating Profile (CIRP), are the most common instruments used in research, considering their publish time, some items on the scale may be outdated.[19][21][16] Because researchers have been using various visions of acceptability measurements, findings may be hard to analyze cross-studies.

## 4. Measuring Lont-Term Effect

Third, the long-term effect of the intervention is the third level of measurement of social validity, which is if the intervention is socially important in the student's life.[7] At the heart of supporting students with ADHD, the purpose of interventions is to help them develop a skill set of success, such as self-management. Evidence-based interventions are proven effective in the classroom context, yet they do not guarantee a significant change in the student's life.[22][4] Apart from the academic difficulties students with ADHD face, these students' educational and occupational attainment are significantly lower than their peers.[23] However, evidence regarding the long-term effectiveness of ADHD interventions is very limited.[6] Some studies suggest that the effect of certain interventions may exist for years, but no systematic conclusions can be drawn.[24] Future research should address the long-term effectiveness of school interventions to shed light on the importance of intervention outcome.

## 5. Discussion

While this review concludes with informative insights, this review has potential limitations. First, it was noted that researchers have been using terms interchangeably, and information can be omitted due to the usage of certain keywords. Understanding how researchers choose their descriptive terms in future studies will be informative. Second, this review discussed interventions for ADHD in the school environment from a general view, while those interventions can look very different based on their functions (i.e., behavioral, academic, social.) Despite the limited sample size of intervention studies, it will be helpful to review each type of intervention. Last but not least, the focus of this intervention is on interventions, whereas accommodations and modifications are also widely used strategies to support students with ADHD. It might be biased to evaluate the effectiveness of

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intervention through an isolated lens, as other factors in the school environment may also mediate the social validity of the interventions.

In correspondence to the limitations of current studies, future studies should carefully examine the instrument used to collect social validity data. If modified, their reliability and validity should be examined and discussed in the intervention research. Feedback from students should also be intergraded, especially given that the motivation of students with ADHD can vary in a large range. The long-term follow-up should not only collect essential data related to the intervention but also seek to understand if there are any significant changes in the intervention consumers' lives and their significant others' lives. Above the effectiveness of the interventions, researchers must investigate how to increase the usage and fidelity of the intervention in the school environment and understand why educators discontinue implementing interventions, although they are effective.

## 6. Conclusion

Supporting students with ADHD is an important topic for educators and researchers. Classroom intervention is one of the major methods through which educators assist these students in overcoming their learning barriers. Social validity is a term to describe the acceptability and significance of interventions. It is a mediator affecting interventions' effectiveness, but social validity data was only sometimes included in intervention studies. Interventions should set goals that are proven to be related to an increase in educational performance, collect data from interventionists and consumers regarding their acceptability of the intervention, and add follow-up sessions to test the long-term outcome of the intervention.

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