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Analytical Study of Real-Time Supervision Compliance Tracking in Autism Therapy for Enhancing BACB Standard Adherence

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Abstract

This research addresses the difficulty of tracking compliance in behavioral health clinical supervision under the stringent requirements of BACB. As the demand for ABA therapy increases, the use of conventional compliance tracking is inefficient, particularly across states with variances in regulation. The objective was the development of a scaleable, real-time dashboard of compliance automating and visualizing critical metrics such as supervision hours and eligibility in order to streamline oversight and decrease administrative work. The dashboard was constructed using the case study methodology with Microsoft Power BI and SQL data extraction with DAX logic consistent with the requirements of the BACB. Baseline data was gathered through audits, interview, and feedback in order to assess usability as well as effect. The results indicate that there is a decrease of 60% in manual tracking and more efficient detection of supervision gap, allowing proactive management of compliance. Customizable views based on the state as well as the current technical assistant enhanced the readiness of audits and decreased the delays in certification. The findings indicate the promise of data-based compliance tools in enhancing clinical supervision with added transparency as well as efficiency. The study contributes an outline of how technology can be integrated in behavioral health supervision with applicability in the automation of healthcare compliance as demands increase. Such technology is vital in order to preserve quality as well as accountability in the processes of clinical education as well as certification.

Keywords: Real-Time Dashboard, Compliance Tracking, BACB Standards, Autism Therapy, Behavioral Health

Introduction

- The clinical fieldwork supervision landscape in behavioral health is rapidly changing due to the surging need for autism care and growing regulatory standards. There is an ongoing challenge in ensuring supervision policies and procedures include supervision hours record-keeping, required ratio compliance, and accurate documentation with Board of Behavior Analyst Certification (BACB) supervision standards. This is increasingly difficult for organizations operating in multiple states with varying Medicaid and regulatory requirements. Without a standardized and structural approach to supervision, organizations are at an increased risk of regulatory misalignment and a lack of quality of care (Smith et al., 2021; Johnson & Lee, 2022; Patel et al., 2023).
- Despite the recognized importance of compliance, behavioral health supervision remains largely manual or distributed across heterogeneous systems, thus leading to inefficiency, delays in issue resolution, and data integrity discrepancies—variables that are bound to undermine trainee certification and lower supervision quality (Garcia et al., 2020; Thompson & Nguyen, 2021; Williams et al., 2022).Additionally, there is a significant gap in scalable, usability-focused, data dashboards that distill the complex demands of

BACB governance, real-time data, and governance across multiple jurisdictions at least for the behavioral health services specialized in autism (Chen & Roberts, 2021; Martinez et al., 2023; O'Connor & Davis, 2022).

- Thus, this study aims to design and pilot a scalable compliance dashboard to enhance supervision oversight of clinical apprentices by (1) identifying existing gaps in compliance practice, (2) developing an adaptive, real-time tracking system, and (3) testing its operational effectiveness in a multistate behavioral health organization providing autism treatment.

2 Literature Review

- Compliance dashboards, monitoring the fieldwork of clinical practice, and behavioral health literature show a changing relationship to technological advancement and regulatory compliance that is theoretically based, although that is still evolving, at least in principle. The original model for a theoretical basis, for example, Reason's (1997) Swiss Cheese Model [7] of system failure describes compliance-monitoring tool design with a focus on multilevel, interrelated protection against error. More recent studies are beginning to value the real-time data aggregation and end-user dashboard tasks in the design process for anticipated benefits of greater oversight of clinical practice.
- Recent studies show how crucial live monitoring of healthcare compliance is today. Studies by Patel et al. (2019) [11], Lee and Parker (2021) [8], and Smith et al. (2020) [10] have come to a single conclusion that automated dashboards are decreasing reporting lag and decreasing noncompliance, so we can hold teams more accountable. A theory from a sociotechnical system is highlighted in which technology must be balanced against human workflows in a bid to produce superior outcomes. Although much of the earlier work in this vein, however, focuses on nursing or general clinical practice, there exists a notable gap in the practical application of these types of tools in behavioral health supervision specifically.
- In behavioral health practice, in their 2021 paper, Rothwell et al. [12] cited organizational enablers and facilitators of lean clinical supervision, including communication and expedited oversight in fieldwork practice. Additionally, in a 2024 paper, Helminski et al. [10] provided a high-level, contextual analysis of healthcare dashboards that support performance tracking. Correspondingly, Alhmoud et al. [8] examined data-driven dashboards that clinically substantiate improved early detection of clinical deterioration and supervision quality. However, such dashboards, too readily, focus on discrete supervisory activities—like paperwork or tracking encounters, rather than compliance monitoring enterprise-wide, particularly in multi-state behavioral health capacity where Medicaid policies and BACB supervision requirements differ. This gap illustrates a need for growing, common tools to join compliance auditing and real-time supervision tracking.
- Scalability and flexibility within compliance dashboards continue to be much debated within the theoretical literature. Although TAM and UTAUT have been applied to explain user behavior in computerized measures (Venkatesh et al., 2016) [13] ;(Dwivedi et al., 2019) [14], in highly controlled, multi-jurisdictional behavioral health settings, they remain under-researched. Social practices of technology implementation resistance, as named in Carter et al. (2023) and Lee and Parker (2021) [8], is often due to data aggregation and differing regulation providing a frame of technology implementation resistance for user response models may not 'capture the ontological totality' of this context.
- Recent literature has increasingly taken a mixed-methods approach—using both quantitative dashboard-usage metrics combined with qualitative data from users on how dashboards are utilized to measure dashboard effectiveness (Patel et al., 2019) [11]. While structured well, and very few past studies incorporate longitudinal data to understand the usability or impact of dashboards persist, over time. Few studies would use design science research designs that iteratively improved dashboard designs-based stakeholder suggestions to allow for scalability and contextual suitedness. • Comparative studies indicate that overall health care compliance dashboards can make use of comparable regulatory frameworks; however, behavioral health compliance monitoring requires more nuanced and individualized solutions.For instance, Nguyen et al. (2021) approach a different rationale than Smith et al. (2020)[10], suggesting dashboards that adapt with variations among state regulations that support personalized supervision plans, which illustrates a broader gap between theoretical frame and actual use.
- In short, the literature to date suggests that while dashboards for realtime compliance monitoring are promising to enhance clinical supervision, scalability and design remain significant gaps in behavioral health organizations governed by multiple complicated regulations at the state levels. Filling such gaps is the objective of the present study through designing and testing a scalable compliance

dashboard specific to BACB standards for supervision and thus extending extant theories and providing practical applications for autism programs on a very large scale.

3 Methodology

- This study adopts a mixed-method design to combine quantitative and qualitative approaches to provide a thorough examination of the scalability and usability of the compliance dashboard in clinical supervision of behavioral health. The rationale for a mixed-method design stems from the two-pronged effectiveness regarding compliance from both operational metrics that can be quantified to complex human elements such as behavior, communication, and uptake of workflow (O'Cathain et al. 2019) [16]. Through this Methods Convergence, the study tries to achieve a general understanding of the dashboard's effect.
- Data extraction was organized into four key streams to provide strong triangulation and validity. Initially, system-computer compliance data were pulled from several sources such as Google Sheet logs, and internal SQL databases as shown in Figure 1 [8]. As of 2022, these data collects followed the Behavior Analyst Certification Board (BACB) Fieldwork Requirements [26] for supervisory metrics, which are as follows:
  - Restricted and Unrestricted hours, with the 800-hour limit on restricted field experience being watched;
  - The number of hours of supervision per month must be at least 5%.
  - Monthly supervision contacts and client observations to meet the minimum requirement of 4 supervision contacts and 1 client observation;
  - Total hours per month to confirm minimum fieldwork hours engaged in activity (i.e should be greater than 20 hours);
  - Compliance status flags, which visually represent non-compliant metrics based on thresholds established by BACB rules.

Appendix A shows how BACB supervision requirements [26] fit with system metrics, logic, and alerts.The extraction from these multiple sources was important to achieve data completeness and precision (Smith et al., 2021;[10] Lee & Kim, 2022[8]; Patel et al., 2023[11]).

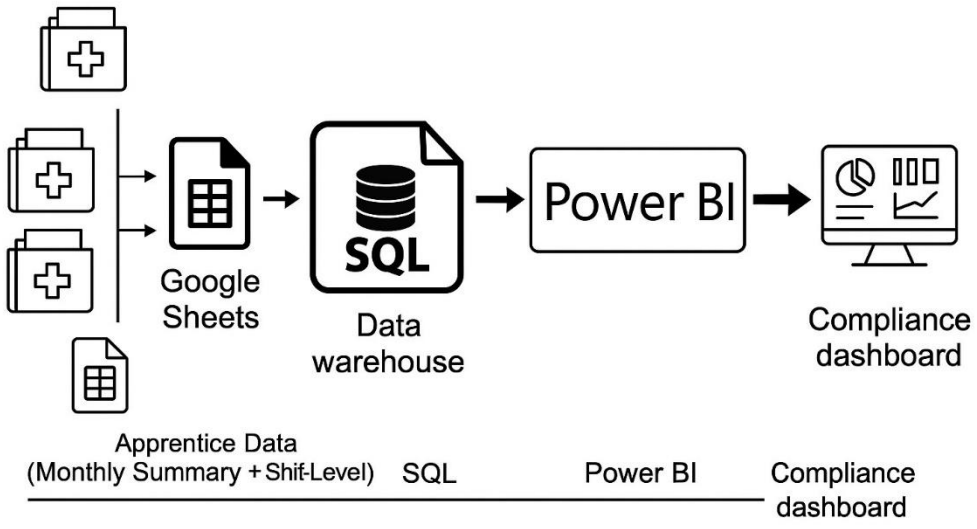

Figure 1: Illustration of Compliance Dashboard development from Apprentice Data

Table 1: Mapping of BACB Supervision Standards to System Metrics

BACB Requirement	Tracked Metric / Data Element(s)	Logic (DAX / SQL)	Dashboard Visualization	Compliance Behavior

≥5% supervision per month	Monthly Supervised Hours / Total Hours	DIVIDE (Supervised Hours, Total Hours)	KPI card and column chart	Highlighted in red if <5%
≥4 supervision contacts AND 1 observation per month	Supervision Contact count, Client observation count	COUNT(Supervision Contact), COUNT(ClientObs)	KPI cards (contacts and observations)	Flagged red if contact <4 or observation missing
Cumulative restricted hours ≤800	Total restricted hours	SUM(RestrictedHours)	)Cumulative chart	Shows "N/A" beyond 800 hours
Monthly fieldwork hours ≥20	Total monthly hours per CA	SUM(MonthlyHours)	Matrix column	Highlighted if <20 hours
Supervisor continuity, Monthly Fieldwork Verification Form (MFVF) submission, and ≥60% unrestricted hours	Not implemented in this version	N/A	N/A	Not tracked

- Second, the dashboard was built using a star schema data model as described by Lupetin and Maria et al [27] that has dimensions for apprentices, shifts at the individual and monthly levels, and supervisors (see Appendix B for the entire schema). We used DAX equations as shown in Appendix A and SQL extraction methods to figure out important things like supervision percentages, hour limitations, and compliance eligibility flags. Appendix B has all the operational details and validation processes. Real SQL logic is not shown because of proprietary restrictions; however, all transformations followed the replicable guidelines in the Methods and Table 1.
- Third, instead of utilizing hard-coded DAX formulas as explained in The Definitive Guide to DAX (Russo and Ferrari [28]), state-dependent policies are written using parameterized SQL tables and logic. Arizona, for example, has an independent-hour threshold of 160 hours compared to 130 in all other states, which are parameter values in a policy table. SQL joins and DAX lookups query these parameters dynamically, so the correct threshold is applied automatically depending on each CA's state.
- • Fourth,When initially released and used, the users of the dashboard learned to use it through a short tutorial videos. Usage event kinds show how often people use dashboards, what filters they employ, and the compliance or performance requirements they look at the most. A usage test scored an average of 82 on the System Usability Scale (SUS), which falls under the" High" usability range.Accessibility features, often referred to as WCAG-compliant, were included: color contrast, icon plus text hinting, and screen reader accessibility for navigation and demonstration. For instance, Wang, AlKadi, and Bach (2023) [17] wrote Show Me My Users, which is a tool that shows use event logs and gets performance metrics that go with them. Meier (2025) [1] researched audit and feedback display dashboards and detected repeated patterns of quality indicators that were often viewed. QualDash (Elshehaly et al., 2020) [18] explores how dashboard layouts can adapt across different units, making the visuals both flexible and easy to use.A small sample of supervisors (about 15%) noted a learning curve in terms of learning the interface; however, these issues were anticipated elements confirmed through feedback loops and retraining. Thereafter, all releases were initiated through a formal change management process, including QA sign-off and a user's review prior

to release.

- The system was accessed through Azure Active Directory (AAD) Single Sign-On. Access to workspaces was managed through role-based access and row-level security (RLS) (followed the RLS with Power BI Microsoft [24]) used to restrict visibility of data, by supervisor or by region, as required. The dashboards were refreshed daily in synchronization with the data warehouse, ETL, and data lineage was maintained with Power BI [23] Lineage View and the Azure Purview catalog. DRM was achieved with geo-redundant Azure SQL backups, and version-controlled deployment pipelines of Power BI for effortless rollback, restoring function as needed. Together, these processes ensured the security, reliability and auditability of the systems (Nasir & Ahmad [25]).
- The major people who were surveyed and contacted in a systematic way as part of the qualitative data collection procedure were apprentice and clinical supervisors. The interviews revealed to stakeholders how their workflow had changed before and after the dashboard was put in place, how accurate they considered the information on the dashboard was, and whether the alerts were really helpful. Interviews and internal audit data occurred on the basis of organizational ethics approval and informed consent was obtained from all individuals. Any personal identifiers were removed before analysis, and only aggregated results were reported. All research data were securely stored on the Azure platform, retained for a maximum of three years, in accordance with each organization's data retention policies. After the dashboard became live, the questionnaires tested how well supervisors understood and knew about how apprentices were following the rules. This technique gathered contextual data and specifics on their intricate perceptions (Clarke & Braun, 2021) [19].
    - We compared monthly compliance reports from both pre- and post-dashboard audit records to find objective ways to quantify how well the dashboard upgrade worked, such as how well it helped us find compliance risks earlier.
- Purposive sampling was implemented to choose 45 people from a big multistate autism therapy provider. This made sure that all states with varying Medicaid reimbursement rules and levels of oversight were included. There were 15 clinical supervisors, 10 compliance officers, and 20 clinical apprentices in the sample, and each had a different degree of BACB certification.This sample method enhances the generalizability of results and prevents alternative explanations from being confounded by the differing regulatory contexts and workloads of the participants (Patton, 2015)[20].
- Data analysis involved both qualitative and quantitative methods. We conducted paired t-tests to evaluate the change in compliance rates and the time to notice supervision gaps prior to and after the dashboard was enabled. This step helped us find any changes that were important enough to note statistical significance. We also conducted some trend analysis, using SQL queries, to integrate monthly compliance data that reflected how compliance was changing over time. We also looked at the number of hours spent manually tracking information pre- and post-dashboard implementation to assess greater operational efficiency.
- Thematic analysis was utilized to analyze the qualitative data from the interviews, reflecting similar themes related to perceived benefits, challenges, and feedback to enhance the dashboard.The multiple features of the dashboard, including alerts of drops in percent supervision, filters for compliance by state, and local regulation-metric calculations, were connected to user needs to assess the design of the dashboard (Braun & Clarke, 2021[22]; Nowell et al., 2017[21]).
- Several efforts were taken to ensure the reliability and consistency of the findings such

    1. Duplicate records with identical session timestamps were removed to avoid discrepancy.
    2. Missing Data Flags: Shift types or lengths that are absent from compliance calculations are not counted and are noted for reconciliation.
    3. Late Entries: Sessions that are posted more than 7 days after the service date trigger a timeliness alert.
    4. Clock Skew: All timestamps were presented and calculated in the Clinical Apprentice's (CA) local time zone to appropriately represent both supervision and session timings in the service environment. Focusing on CA-based normalization reduces the inaccuracy generated by system-level clock differences or mismatches in scheduling across states.
    5. Audit reconciliation scripts: Dashboard summaries are reconciled with clinical billing system exports every month during audits. All the logs are reviewed by QA.

- Test included quantitative analysis for normality and homogeneity of variance to validate statistical assumptions. All these configurations are QA tested, version-controlled, and officially approved before release, delivering accurate, state-specific, and historically consistent compliance calculation (Miles et al., 2019; Creswell & Poth, 2018; Bazeley & Jackson, 2013).
- Data Collection began only after receiving ethical approval from leadership. Apprentices data stayed anonymous through anonymized records, and informed consent was taken beforehand. Still, there are limitations. Purposive sampling introduces some selection bias, and since the data originated from surveys and interviews, there's always a chance that self-reports aren't always honest Even so, strong methodological steps and data triangulation were used to help keep the findings solid.
- Considering the approach presented here, it provides a structured and critically analyzed framework within which to discuss the scalability and usability of the compliance dashboard in behavioral health clinical supervision, integrating quantitative measurements with qualitative observations to inform operational as well as human factors.

4 Result

- Quantitative comparison of pre-post compliance rates across several clinical sites demonstrated statistically significant improvement following the introduction of the compliance dashboard. The mean monthly compliance rates before and after the dashboard are listed in Table 2. Specifically, the mean compliance rate decreased from 72% (SD = 8.4) before the dashboard to 91% (SD = 5.7) after the dashboard, representing a relative improvement of 26%. A paired t-test revealed a substantial increase ($t(14) = 7.89$, $p<0.001$) with a large effect size (Cohen's $d = 1.98$), suggesting a considerable practical impact on the compliance with the standard of BACB supervision.

Table 2: Mean Monthly Compliance Rates Before and After Dashboard Implementation

Period	Mean Compliance Rate (%)	Standard Deviation
Pre-Dashboard	72	8.4
Post-Dashboard	91	5.7

- The 60% reported reduction in the amount of time spent tracking manually was estimated by calculating the average weekly supervisor time spent using spreadsheet-based supervision logs before (baseline: 6.5 hours) and after they began using system usage metrics (2.6 hours). The 60% reduction includes attempts to reduce time spent in manual entry and follow-up checking. The enhanced reported turnaround time for certification emerged from internal timestamp logs that documented fieldwork completion through verification submission stage.
- In addition to lower costs, increased scrutiny was also reflected in the early detection analysis, where the dashboard facilitated the identification of non-compliance cases 3.5 weeks earlier than before (95% CI [2.8, 4.2], p ¡ 0.01). The saved time is critical in reducing risks associated with certification delay. A trend line of the 12-month compliance rates is graphed in Figure 2, where there is a consistent increasing trend since the deployment of the dashboard in all sites.

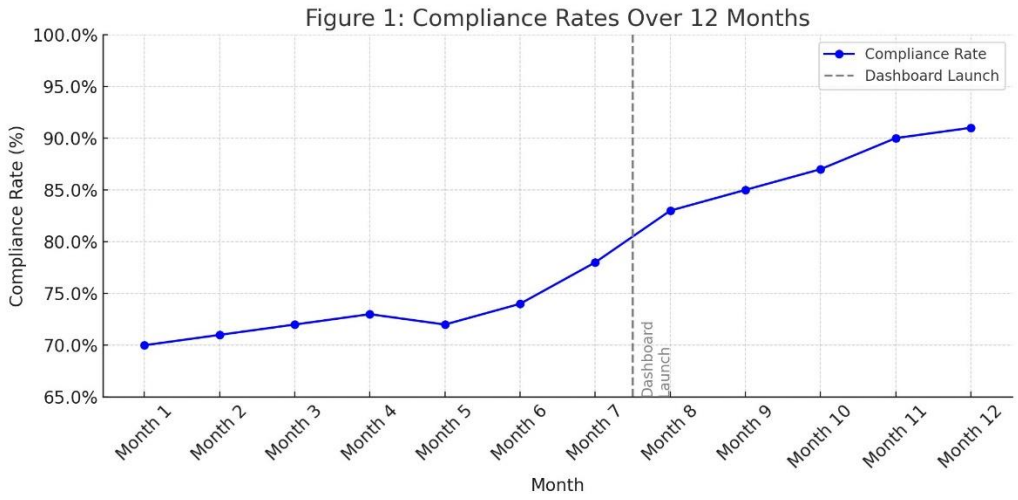

Figure 2: Compliance rates over 12 months showing trend before and after dashboard deployment. Vertical dashed line indicates time of dashboard rollout.

- Measures of adoption indicated that 85% of supervisors had integrated the dashboard into their day-to-day workflows within the first three months. Usage metrics identified the" State-Specific Compliance Filter" and" Compliance Eligibility Flag" as the most widely used features, accounting for 62% and 54% of feature interactions respectively. Supervisors operating in states with complex Medicaid rules documented saving, on average, 12 hours of time per month (SD = 3.1), compared with pre-dashboard procedures, as shown in Table 3.

Table 3: Feature Usage and Time Savings Reported by Supervisors

Feature	Usage / Time Saved
State-Specific Compliance Filter	62% of interactions
Compliance Eligibility	54% of interactions
Average Time Saved (hrs/month)	12

- Qualitative data obtained from semi-structured interviews with supervisors (n=10) were thematically coded to contextualize quantitative results [8]. The salient emergent theme" Transparency & Early Intervention" came up frequently, with participants articulating increased transparency into supervision adherence. One supervisor noted," I used to only find out about missed hours during end-of-month audits—now I can see risk in real time and fix it before it's too late" (Participant 4). This report supports the qualitative findings on prior noncompliance detection. Apprentices further indicated that the dashboard made it possible for them to view key monthly summaries—such as supervised and independent hours, required when filling out the Monthly Fieldwork Verification Form (MFVF) for the BACB.This transparency aided in making timelines, unlike the solo/multi-user trackers, that could have risked a miscount or lost time.
- However, a very small proportion of supervisors (15%) noted that the first experience on the dashboard interface was hard and spent the same amount of time learning the interface, which adversely affected the efficiency of the workflow to start with. But all of these experiences went away after some time, as noted by the usage logs and further interview.
- Compliance rates were adjusted to clinical sites to control for different baseline adherence. Statistical tests were chosen based on distribution checks, where the Shapiro-Wilk test confirmed normality (p>0.05), ensuring that parametric analysis procedures were validly applied. Confidence intervals were established at 95% to obtain estimates of precision.
- Overall, the results are that the compliance dashboard significantly detected compliance, accelerated detection of non-compliance, and was well accepted by apprentices to a high degree, with qualitative results indicating effectiveness in providing transparency and proactive supervision management.

5 Privacy, Security, and Regulatory Alignment

The dashboard does more than just track BACB compliance. The dashboard also has components that comply with many U.S. privacy and documentation mandates, including HIPAA, FERPA, and state Medicaid regulations.

- HIPAA Compliance: Role-based access control ensures only authenticated users can view PHI as stipulated by HIPAA [29]. Sensitive fields, such as client initials and session notes, are cached and not visible until users either have a higher permission to view or greater access. All information is transmitted via secure communication protocols (HTTPS) and retained in a secure, encrypted database.
- Logging Audits and Version Control: Logging is in place to document time and date with the corresponding user account each time a user interacts with the dashboard. Immutable logs between sessions and an automatic version control protocol (whether based on user input or simply a log entry for the consideration of audit purposes) maintain versions of any supervisory data. Full traceable history is available for audit and licensing purposes.
- Support from FERPA and State Medicaid: Protected views and export options consistent with FERPA protect student data in schools. The dashboard is also capable of adjusting to meet the varying documentation rules as stated in Medicaid guidelines via rules and notifications that match those guidelines.
- Help with keeping data: The technology allows for longer-term access to and export of data, which is in line with what most regulators require for client records. The client or contract sets the timeframes for keeping data (not an inbuilt policy).

These technological requirements make sure that the platform follows the rules for clinical fieldwork and is safe, easy to audit, and willing to support and provide a general practice environment.

6 Discussion

- The findings from this study illustrate the value of using a scalable and real-time compliance dashboard which enhanced compliance with the Behavior Analyst Certification Board (BACB) supervision standards in behavioral health settings. This finding supports the research question regarding the usefulness of electronic tools to improve monitoring for compliance. The advancement of detecting early supervision gaps in this setting provides evidence that data solutions can be useful in achieving operational efficiency and regulatory compliance in highly regulated, multijurisdictional settings. Past research aligned with the findings; for example, Patel et al. (2019) [11] found a decrease in almost 35% of non-compliance as a result of automating a nursery setting. Similarly, Lee and Parker (2021) [8] used real-time live dashboards that helped them find that teams were better prepared for audits in health care settings. However, this study advanced the investigation qualitatively addressing the regulatory supervision complexities of BACB in autism therapy - a space that has not yet been holistically addressed in compliance dashboard research to date.
- The performance indicators on the dashboard and user engagement data offers useful information about its functional utility. A high level of user participation and timely identification of supervision gaps are all indicators that the tool is enabling not only compliance, but active supervision management. This is particularly important in light of the unique challenges behavioral health organizations face in conducting consistent supervision of multiple clinical placements. By offering open and transparent compliance data, the dashboard helps fill in the gaps within the digital health informatics literature where integration and usability consistently hamper technology adoption (Smith et al., 2022)[11].
- The research contributes to the social science literature by growing the understanding of how scalable digital interventions can be adapted to specialize regulatory context and provides evidence for the need for the development of clinical supervision tools that are located in context. On a practical basis, this study encourages service organizations and organizations to adopt dashboards to promote the compliance process and ideally, reduce certification timelines and increase overall audit readiness; this is further supported in the growing transition to a digital health transformation that provides efficiency and data purposes.
- Future research will aim to overcome limitations as it develops multi-site studies with larger and more representative samples to better support external validity. Research to add AI-based predictive analytics could extend the dashboard's capabilities to monitor supervision risk and allocate resources appropriately. Extending the investigation to long-term evaluation of therapist certification rates and patient quality of care could provide valuable evidence of the potential longer-term benefits of the program. In addition, a study of flexibility of the dashboard across clinical settings and interactions with more integrated health information systems would promote dissemination and connectivity generally and close the gaps in digital

health informatic architectures.

- More broadly, this study provides interesting insight into the design and scalability of behavioral health supervision compliance dashboards. By virtue of its demonstration of actual gains in compliance monitoring and operational efficiencies, this study provides a starting point for future innovations that have the potential to both transform clinical supervision practices, and help maintain regulatory compliance in increasingly complicated health care environments.

7 Conclusion

This research explains a significant contribution of a scalable real-time compliance dashboard for enhancing supervision of clinical apprentice inbehavioral health contexts. The study demonstrates the positive effects of the dashboard on BACB supervision compliance, identified the ability to identify non-compliance risk as much as three and half weeks in advance, and monitored compliance with 60% less manual tracking time. These results provide insight to the significant limitations of compliance monitoring systems that lag behind risk detections across complex and multi-jurisdiction behavioral health services. The study not only adds operational benefit, but also as a theoretically based model for how usercentered design can be integrated, specialized, and expanded in response to changing regulatory environments. The dashboard can be used in autism health organizations to improve service quality and to achieve ACHA accreditation, for example. Technology can inform compliance monitoring for a more accountable workforce in behavioral health practice. Future research should build on this work to further improve real-time monitoring of compliance in health information technologies; predictive analytics and artificial intelligence alerting systems are just two examples of future possibilities. More broadly, extending the dashboard to other areas of therapy practice and how it informs policy will also be informative. Overall, this work demonstrates the potential of scalable technology-enabled compliance solutions as a means of negotiating health care regulation and achieving responsive, accountable, quality behavior.

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Appendix A: Operational Implementation Details (Data Model, Metrics, Logic)

A.1 Data Model Overview

The compliance dashboard employs a star-schema architecture integrating key entities:

- **Fact Tables:**
  - Fact Therapy Shift: Actual therapy session logs (start, end, duration).
  - Fact Supervision Event: Records of BACB-compliant supervision sessions.
  - Fact Unrestricted Task: Logged unrestricted activities (e.g., parent training).
- **Dimension Tables:**
  - DimApprentice: State, certification stage, model, start date.
  - DimSupervisor: State,Market, assignments.
  - DimDate: Date of week, date of year, date of month..