Applied Behavior Modification Techniques for Increasing Assertiveness in Persons with Intellectual Disability

Rini Hartini Rind Andayani[1], Tiara Tri Sofiani[2], Elin Herlina[3], Sinta Yulianti Suyono[4]
[1,2,3,4]Politeknik Kesejahteraan Sosial Bandung, Indonesia
Email: rindadayani@gmail.com

Abstract

This study evaluated the effectiveness of behavior modification techniques to enhance assertiveness in a person with intellectual disability identified as having low assertive behavior. Using a single-subject experimental design A–B–A with quantitative descriptive methods, the intervention targeted measurable deficits identified during baseline assessment. The participant, classified as imbecile and receiving services at Sentra Terpadu Kartini Temanggung, was selected through recommendations from social workers and dormitory supervisors. Two primary techniques modelling and advice giving with instruction were implemented across the intervention phase. Assertive behavior was measured via participatory observation using a Likert scale, focusing on specific skills such as refusal of unwanted physical contact. The intervention emphasized positive support to enable the participant to express feelings and set personal boundaries assertively. Results demonstrated a marked improvement in assertive responses, notably refusal of physical touch, yielding a post-intervention score of 340. Observations indicated the participant could effectively refuse attempts by opposite-sex individuals to touch sensitive body areas. These outcomes suggest that targeted behaviour modification procedures can produce clinically meaningful gains in basic assertiveness among persons with intellectual disabilities. The study contributes empirical evidence for the application of modelling and directive advice in social rehabilitation settings. Implications include the potential adoption of these techniques by practitioners to inform individualized intervention planning and to strengthen foundational assertiveness skills based on assessment-driven priorities.

Keywords: *Behavior Modification Techniques, Assertive Behavior, Persons with Intellectual Disabilities, Single-Subject Design.*

A. INTRODUCTION

Assertiveness, understood as the ability to communicate needs, preferences, and personal rights clearly and respectfully, constitutes a key dimension of social competence that supports autonomy and self-determination (Alberti & Emmons, 2008). In the context of intellectual disability (ID), assertive behavior is often limited by cognitive constraints, communication difficulties, and socialization patterns that emphasize compliance over self-advocacy. Prior research indicates that reduced assertiveness among persons with ID is associated with lower self-determination and diminished capacity to act as causal agents in everyday decision-making processes (Wehmeyer, 1999). These limitations can increase vulnerability in social interactions, particularly in situations requiring boundary-setting or refusal skills. A lack of assertiveness has also been linked to restricted participation in community life, as individuals may struggle to negotiate social roles or express personal preferences effectively. Although rehabilitation programs increasingly emphasize functional

independence through activities of daily living (ADLs), such approaches primarily address physical autonomy rather than interpersonal agency. Consequently, core social skills such as assertiveness remain underemphasized as explicit outcomes of intervention. This imbalance may unintentionally perpetuate social exclusion by failing to equip individuals with ID with the communicative competencies needed for meaningful participation. The issue is especially salient in low- and middle-income settings, where disability services often prioritize basic care due to limited resources (World Health Organization, 2011).

In Indonesia, Sentra Terpadu Kartini Temanggung, operating under the Ministry of Social Affairs, provides integrated social rehabilitation services for persons with intellectual disability (ID) that prioritize cognitive development, psychosocial support, and self-care skills as core components of intervention (Ministry of Social Affairs of the Republic of Indonesia, 2020). These service modalities are aligned with national disability policies that emphasize functional independence and social protection for vulnerable populations. Evidence from institutional practice indicates that such interventions have been effective in strengthening basic adaptive and daily living skills. However, practitioners consistently report limited proficiency among service users in socially assertive behaviors, including the ability to make appropriate requests, refuse unreasonable demands, and articulate personal preferences in both institutional and community-based contexts. This pattern reflects broader challenges identified in disability service systems, where social competence and interpersonal agency are often secondary to physical or functional autonomy outcomes. The limited focus on assertive behavior development may constrain self-determination and reduce meaningful participation in social life. International frameworks on disability rehabilitation emphasize that social skills must be intentionally taught, practiced, and evaluated as part of holistic rehabilitation rather than assumed to emerge from ADL training alone (World Health Organization, 2011). Moreover, culturally responsive and contextually embedded interventions are critical to ensure that social behaviors are transferable to everyday interactions beyond institutional settings. The observed gap at Sentra Terpadu Kartini Temanggung therefore underscores the need to reorient rehabilitation approaches toward structured, skill-based social behavior development that is measurable and integrated into daily routines. Such a shift is consistent with contemporary models of disability services that position social competence and self-advocacy as essential outcomes of inclusive rehabilitation (Wehmeyer, 1999).

Behavior modification, grounded in learning theory and the applied behavior analysis (ABA) tradition, offers a systematic and empirically validated approach to teaching assertive behaviors as observable and measurable social responses. Within ABA, assertiveness is conceptualized as a set of discrete behaviors that can be explicitly taught, reinforced, and generalized across contexts when defined in operational terms (Baer, Wolf, & Risley, 1968). Empirical literature on social skills interventions for individuals with developmental disabilities demonstrates that instructional strategies such as modeling and direct instruction are effective because they provide clear behavioral exemplars and structured opportunities for practice

(Matson, Hattier, & Belva, 2011). These strategies allow learners to acquire assertive responses through observation, rehearsal, and corrective feedback rather than relying on implicit social learning processes. When implemented in institutional settings, assertiveness training can be translated into specific target behaviors, such as making appropriate requests, issuing respectful refusals, and setting interpersonal boundaries. Clearly defined behavioral targets support consistent implementation among practitioners and reduce ambiguity in intervention delivery. Behavior modification also enables systematic monitoring through direct observation and performance-based indicators, strengthening the rigor of outcome evaluation. Such measurability is particularly important in rehabilitation institutions that require accountability and evidence of intervention effectiveness. By embedding assertiveness training into daily routines of care, behavior modification approaches align social skill development with evidence-based practice standards while remaining feasible for large-scale service delivery (Miltenberger, 2016).

This study investigates the application of behavior modification techniques to enhance assertiveness among residents with intellectual disability (ID) at Sentra Terpadu Kartini Temanggung using a rigorous single-case intervention approach. A Single Subject Design (SSD) with an A–B–A model is employed to examine functional relations between the intervention and changes in assertive behavior across baseline, intervention, and post-intervention phases, consistent with contemporary standards for single-case experimental research (Kratochwill et al., 2010). Assertiveness is operationalized into predefined and observable response classes to ensure objective measurement and analytical precision. The intervention integrates modeling and structured instruction with guided rehearsal to support systematic skill acquisition. Performance feedback and differential reinforcement are used to improve response accuracy and promote behavioral maintenance over time. These procedural elements are widely recognized as core components of high-quality single-case behavioral interventions in applied settings (Horner et al., 2005). Outcome evaluation emphasizes the frequency, accuracy, and social appropriateness of assertive responses demonstrated in routine interpersonal situations. Target behaviors include refusing inappropriate requests and engaging in self-advocacy during interactions with peers and staff. Particular attention is given to the maintenance of learned behaviors following the withdrawal of intervention conditions. The design also facilitates assessment of generalization across social contexts, which is critical for establishing ecological validity in institutional rehabilitation environments (Tate et al., 2016).

By positioning assertiveness as a priority domain within social rehabilitation, this study contributes to the literature in three interrelated ways. First, it proposes a replicable micro-practice protocol that is embedded within routine institutional activities, supporting the translation of abstract social competencies into concrete daily practices (Shogren, Wehmeyer, Palmer, & Forber-Pratt, 2015). Second, the study establishes clearly defined behavioral indicators and structured observation tools that enable continuous monitoring and data-driven decision-making in rehabilitation settings. Such measurable frameworks are essential for strengthening accountability

and ensuring that social skill development is evaluated with the same rigor as functional outcomes (Tate et al., 2016). Third, the research offers culturally sensitive implementation guidance that aligns assertiveness training with Indonesian social norms emphasizing respect, harmony, and relational appropriateness. This contextualization increases the likelihood that assertive behaviors will be socially accepted and sustainably practiced beyond institutional environments. The findings are expected to inform practitioner training by clarifying how assertiveness can be systematically taught and reinforced. In addition, they contribute to program design aimed at promoting inclusive social participation and interpersonal agency. Ultimately, the proposed framework provides a scalable model that other rehabilitation institutions may adopt and adapt to strengthen self-advocacy and autonomy among persons with intellectual disability.

B. METHOD

This study used a descriptive quantitative approach with a Single-Subject Design (SSD) employing an A–B–A model, comprising an initial baseline (A1), an intervention phase (B), and a post-intervention baseline (A2). This methodological framework was chosen to evaluate the effectiveness of behavioral modification techniques in enhancing assertive behaviors specifically refusal skills for inappropriate physical touch and social interaction among individuals with intellectual disabilities (ID). Sampling was conducted using purposive sampling according to predefined inclusion criteria and based on recommendations from social workers, psychologists, and residential supervisors. The study subject was a 25-year-old female diagnosed with imbecile-level intellectual disability.

Data were collected through structured observation, interviews, Likert-scale assessments, and document review. The intervention consisted of two behavioral modification techniques: modelling and the provision of advice and instructions. Interventions were delivered daily for two weeks, with each session lasting approximately two hours. Behavioral changes were monitored graphically across the three phases, tracking accuracy, persistence, and frequency. Descriptive analysis was used to interpret both quantitative measures and qualitative observational findings. To ensure instrument validity and reliability, expert validation was conducted by professionals in social work and rehabilitation, and instruments were retested for reliability prior to deployment. Ethical safeguards were strictly observed, including obtaining informed consent, maintaining data confidentiality, and adhering to professional social work principles. The study aims to inform the development of evidence-based interventions for individuals with intellectual disabilities in Indonesia and to provide a replicable model that social rehabilitation institutions can implement to systematically enhance beneficiaries' assertive skills through structured behavioral interventions.

C. RESULTS AND DISCUSSION

This study was conducted at Sentra Terpadu Kartini Temanggung, a Technical Implementation Unit (UPT) under the Ministry of Social Affairs of the Republic of Indonesia. The center provides comprehensive social rehabilitation services for individuals with intellectual disabilities (ID), with a primary focus on enhancing adaptive functioning and fostering independence through structured intervention programs. Sentra Kartini is widely recognized for its inclusive rehabilitation model, which integrates cognitive therapy, psychosocial support, spiritual guidance, and vocational training.

The selection of this site was guided by several strategic considerations. Sentra Terpadu Kartini offers purpose-built facilities including residential dormitories, therapy rooms, training areas, and supervised living arrangements specifically designed to address the needs of persons with intellectual disabilities. The availability of qualified professionals, such as social workers, psychologists, and instructors, facilitated the implementation of behavior modification techniques within a controlled and supportive environment. Furthermore, the center's ATENSI program adopts a holistic, standardized framework that comprehensively addresses beneficiaries' physical, psychological, and social needs.

The institution's emphasis on individualized care and systematic skill development established it as an appropriate setting for monitoring behavioral change and evaluating intervention effectiveness. The research was actively supported by the center's management and staff, who provided access to facilities and contributed contextual insights regarding beneficiaries' daily routines and challenges.

This study involved a single participant selected through purposive sampling, based on referrals from social workers, psychologists, and dormitory supervisors. The participant met the inclusion criteria and was identified as exhibiting low assertiveness skills. The participant's profile is outlined as follows:

1. Subject (AL)
2. Gender: Female
3. Age: 25 years
4. Origin: East Java
5. Diagnosis: Intellectual Disability (ID), categorized as imbecile

The subject has resided at Sentra Terpadu Kartini Temanggung for more than one year as a residential beneficiary. She demonstrates significant impairments in assertive refusal when members of the opposite sex attempt inappropriate physical contact, as well as difficulties in peer social interactions. Baseline assessments revealed low scores in these target behaviors, thereby underscoring the need for targeted behavior modification interventions to address the identified deficits.

This study adopted a descriptive quantitative approach utilizing a Single-Subject Design (SSD) with an A–B–A model, consisting of an initial baseline phase (A1), an intervention phase (B), and a post-intervention baseline phase (A2). This methodological framework was selected to examine the effectiveness of behavior modification techniques in improving assertive behaviors among individuals with

intellectual disabilities (ID). The intervention was administered daily over a two-week period, with each session lasting approximately two hours. Prior to the intervention, assertive skills were assessed using a Likert scale. The lowest scores were observed in refusal skills related to inappropriate physical contact and in social interaction, which were subsequently designated as the primary targets of the intervention.

During the A1 phase, the subject's behavior was observed without any intervention to establish a baseline. The Likert scale revealed a total score of 200, indicating low assertive skill. Specific observations included: a) refusal physical touch: the subject does not yet know which parts of the body may and may not be touched. b) interaction with peer: difficulty in having interactions with peers.

During the intervention phase, two behavior modification techniques modelling and advice giving with instruction were employed. Each session was systematically designed to strengthen assertiveness skills, specifically focusing on refusal behaviors in response to inappropriate physical contact and the enhancement of peer social interactions. Social workers and caregivers were consistently engaged in delivering the intervention to ensure fidelity and continuity.

1. Refusal skills related to inappropriate physical contact: The subject was guided to recognize and assertively refuse unwanted physical touch, thereby increasing awareness of personal boundaries.
2. Social interaction with peers: Structured activities and guided practice were implemented to facilitate the subject's ability to initiate and sustain appropriate social exchanges with peers.

Following the intervention, the subject's assertiveness skills were reassessed using the Likert scale, with the total score increasing to 390, thereby indicating a substantial improvement in assertive behavior. Observations confirmed that the subject had developed the ability to recognize which parts of the body are permissible or impermissible to be touched and could assertively refuse inappropriate contact by saying "no." In addition, the subject demonstrated progress in peer social interaction, as evidenced by her ability to initiate and engage in basic conversations with peers, reflecting enhanced interpersonal communication and social engagement.

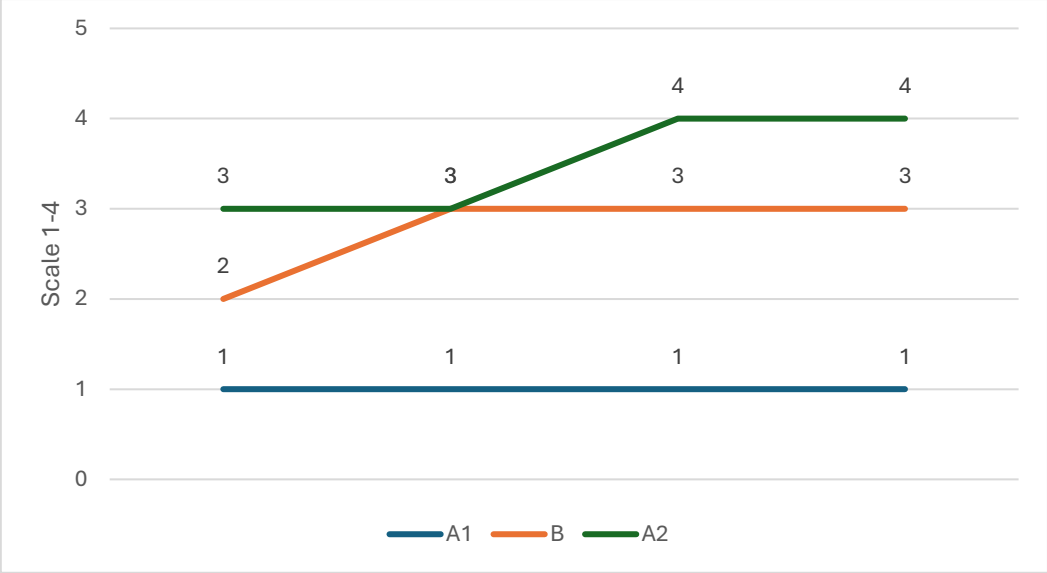

Figure 1. Behavioral Development of Subject AL

The trajectory of behavioral development for Subject AL was systematically monitored across three phases baseline 1 (A1), intervention (B), and baseline 2 (A2) through graphical analysis and Likert scale assessment. The intervention specifically targeted two domains of assertiveness: refusal of inappropriate physical touch and peer social interaction. At baseline (A1), the subject demonstrated limited awareness of bodily boundaries and experienced difficulty engaging with peers. During the intervention phase (B), mean scores for both refusal of inappropriate touch and peer interaction showed substantial improvement, reflecting enhanced assertive skills. In the second baseline (A2), a slight fluctuation was observed in the subject's ability to verbally refuse by saying "no." Nevertheless, overall performance in A2 remained significantly higher than in A1, thereby indicating sustained behavioral change and the effectiveness of the intervention in strengthening assertiveness.

Graphical analysis indicated that Subject AL demonstrated a high rate of asserive behavior during the intervention phase. The most prominent improvement was observed in refusal skills, particularly the ability to say "no," which progressed from an initial lack of awareness regarding permissible and non-permissible body contact to a clear recognition of boundaries and the capacity to assertively refuse inappropriate touch. These behavioral changes were facilitated by the consistent application of modelling and advice-giving with instructional techniques. The subject's Likert scale score increased from 200 (low assertiveness) at baseline to 390 (high assertiveness) post-intervention, thereby confirming the effectiveness of the behavioral strategies. The trajectory of improvement was steady, with only minimal regression noted during the second baseline phase, further supporting the sustainability of the intervention outcomes.

During the A2 phase, Subject AL was able to retain most of the assertive behaviors acquired during the intervention. Daily routines, such as initiating refusal by saying "no" and greeting others with "halo" without prompts, were consistently observed. These outcomes suggest that the applied behavior modification techniques

were effective in producing lasting changes, particularly in self-care and social habits. Nevertheless, the study emphasized the necessity of continued supervision and reinforcement to prevent potential behavioral decline. The active involvement of social workers and caregivers was found to be critical in sustaining these improvements and ensuring long-term stability of the acquired skills.

To understand how the subject responded to the behavioral modification strategies implemented during the intervention, a systematic tracking of behavioral changes was conducted. This process focused on observing patterns of response as the subject was exposed to different instructional and reinforcement techniques over time. The aim was to assess how each strategy contributed to the subject's ability to acquire, retain, and apply appropriate social behaviors in daily interactions. The findings below describe the key strategies employed and their observed effects on the subject's behavioral development.

1. Modelling: This technique was instrumental in guiding the subject through step-by-step routines. Visual demonstrations combined with verbal cues enabled the subject to internalize correct procedures for refusal by saying "no" and for greeting others appropriately.
2. Advice Giving and Instruction: This technique was applied to reinforce successful attempts, recognizing that individuals with intellectual disabilities require frequent and consistent instruction. The method contributed to strengthening the subject's memory and retention of learned behaviors.

These findings are consistent with previous conclusions regarding the effectiveness of modelling and instructional techniques and further support the work of Bandura (1977), who emphasized the role of observational learning in behavior acquisition. The study confirms that behavior modification strategies can be effectively implemented within social rehabilitation settings to enhance assertiveness among persons with intellectual disabilities. Although the results are encouraging, additional research is necessary to examine the long-term sustainability of these behavioral gains and to explore the influence of environmental factors in maintaining improvements. Based on the outcomes of this study, it is recommended that social rehabilitation programs at Sentra Terpadu Kartini and comparable institutions systematically integrate behavior modification strategies as part of a structured approach to strengthening assertiveness in individuals with intellectual disabilities

Behavior modification techniques, particularly modelling and structured instruction through advice giving, have demonstrated effectiveness in enhancing assertiveness among persons with intellectual disabilities (ID) by promoting the acquisition of functional and socially appropriate responses. Evidence from single-case and small-group intervention studies indicates that explicitly taught social behaviors can be successfully shaped when instruction is systematic and performance expectations are clearly defined (Machalicek et al., 2007). The significant increase in assertive behaviors observed during the intervention phase (B) suggests that repeated exposure to modelled responses and guided rehearsal effectively supports skill acquisition in individuals with developmental challenges. Importantly, the

persistence of assertive responses during the second baseline phase (A2) indicates that the behaviors were maintained beyond immediate instructional conditions. Such maintenance effects align with empirical findings showing that socially relevant behaviors are more likely to endure when interventions emphasize practice within naturalistic interaction contexts. Research syntheses further confirm that modeling and direct instruction are evidence-based strategies for improving communication-related social skills, including self-advocacy and refusal behaviors (Wong et al., 2015). By operationalizing assertiveness as observable behavior, behavior modification enables precise goal specification and consistent implementation across institutional settings. This approach also allows for objective outcome evaluation through direct behavioral observation. Overall, the findings support the theoretical proposition that behavior modification constitutes a practical and associative method for strengthening assertiveness among individuals with intellectual and developmental disabilities.

This outcome is consistent with behavioral learning principles that emphasize reinforcement and repeated practice as central mechanisms in shaping socially appropriate behavior. Evidence from systematic reviews indicates that structured behavioral interventions incorporating modeling and explicit instruction are effective in improving social communication and adaptive behaviors among individuals with intellectual and developmental disabilities (Reichow, Barton, Boyd, & Hume, 2012). In this context, visual modeling facilitated the acquisition of refusal skills, including recognizing inappropriate physical contact and identifying body parts that should not be touched, as these competencies rely on concrete demonstrations rather than abstract verbal explanations. International disability and violence-prevention guidelines highlight that individuals with intellectual disabilities benefit most from personal safety education that uses visual cues, repetition, and context-specific rehearsal to strengthen protective behaviors (World Health Organization, 2012). In addition, advice giving and structured verbal instruction functioned as systematic prompts that clarified expected responses within daily routines. Step-by-step instructional cues reduced ambiguity and supported the internalization of assertive responses across familiar social situations. Over time, this instructional structure reduced reliance on caregiver assistance by promoting independent decision-making. The maintenance of assertive behaviors observed reflects the role of reinforcement in consolidating newly acquired skills into stable behavioral patterns. Collectively, these findings support the applicability of behavior modification as an effective approach for teaching assertiveness and personal safety skills in institutional rehabilitation settings.

Results demonstrated marked improvement across two targeted assertive domains following the intervention. At baseline, the subject showed limited awareness of permissible and non-permissible body contact, reflected in a low Likert-type score of 200, indicating weak assertive capacity. After the intervention, the subject demonstrated clear recognition of personal boundaries and the ability to assertively refuse inappropriate touch, with the post-intervention score increasing to 390,

representing high assertiveness. Likert-type rating scales are widely accepted as valid tools for capturing changes in attitudes, awareness, and behavioral tendencies when applied consistently across measurement phases (Norman, 2010). Behavioral change was documented through structured observation protocols designed to capture observable and socially meaningful responses. Graphical analysis revealed consistent upward trends across phases, supporting a functional relation between the intervention and assertive behavior outcomes. Contemporary single-case research standards emphasize visual analysis as a primary method for evaluating level, trend, and consistency of behavior change across experimental phases (Shadish, Hedges, & Pustejovsky, 2014). The stability of post-intervention data further suggests that observed improvements were not transient. Overall, these findings provide empirical support for the effectiveness of behavior modification techniques in strengthening assertive boundary-setting skills among individuals with intellectual disability.

The sustainability of behavior change varied across assertive domains during the maintenance phase. While refusal of inappropriate touch remained stable in the second baseline phase (A2), greeting behaviors showed minor regression, likely influenced by increased environmental distractions and reduced levels of adult supervision. Such domain-specific variability is common in behavioral interventions, as different social skills require differing levels of contextual support to be maintained over time. Research on generalization and maintenance of behavior change emphasizes that skills acquired under structured conditions may weaken when reinforcement contingencies are reduced or environmental demands increase (Stokes & Baer, 1977). In institutional settings, greeting behaviors are particularly sensitive to contextual cues and social prompts, making them more vulnerable to extinction when supervision decreases. These findings underscore that maintenance is not solely a function of initial skill acquisition but also of sustained reinforcement within natural environments. Ongoing reinforcement schedules are therefore critical to stabilize newly acquired social behaviors. Caregiver involvement plays a central role in this process by providing consistent prompts, feedback, and reinforcement during daily interactions. Without such support, behavioral gains may diminish over time despite initial intervention success. Overall, the observed patterns highlight the necessity of embedding maintenance strategies into routine care practices to ensure long-term effectiveness of assertiveness training.

The study also identified several implementation challenges related to the sustainability of behavioral outcomes in institutional settings. Continuous monitoring during the post-intervention phase was critical to prevent behavioral decline, as the effectiveness of behavior modification depended heavily on consistency and fidelity of implementation. As emphasized by Miltenberger (2016), behavioral interventions must be systematically delivered and tailored to individual characteristics in order to achieve durable outcomes. This requirement is consistent with evidence showing that treatment integrity and ongoing performance feedback significantly influence maintenance effects in applied behavioral interventions (Odom et al., 2015). Younger individuals with lower baseline skills may require more intensive reinforcement,

repeated practice, and environmental structuring to consolidate newly acquired behaviors, whereas older individuals often benefit more from refinement and maintenance of existing competencies. Such developmental differences have been shown to moderate responsiveness to behavioral intervention intensity and reinforcement schedules (Carter, Gustafson, Sreckovic, Dykstra Steinbrenner, & Smith, 2014). This distinction underscores the importance of individualized intervention planning, as highlighted in previous studies by Kazdin (2013) and Kneisl (2015), particularly in heterogeneous populations with intellectual disability. Overall, these findings reinforce the need for adaptive implementation strategies that align intervention dosage, monitoring intensity, and caregiver involvement with individual learner profiles.

The findings contribute to the advancement of inclusive rehabilitation practices in Indonesia by demonstrating how assertiveness can be strengthened through structured, routine-based behavioral interventions. Integrating behavior modification techniques into daily institutional activities enables rehabilitation centers such as Sentra Terpadu Kartini Temanggung to move beyond basic care toward the promotion of interpersonal agency and self-advocacy. International rehabilitation frameworks emphasize that embedding skill development within everyday routines is essential for fostering dignity, participation, and social inclusion among persons with intellectual disabilities (World Health Organization, 2010). When applied systematically and contextually, behavior modification techniques show substantial potential to improve assertive behavior and support respectful social interaction. These approaches align with contemporary service models that prioritize active participation and autonomy rather than passive dependence. Nevertheless, implementation challenges remain, particularly in ensuring consistency across settings and sustaining gains once structured support is reduced. Evidence from community-based disability services suggests that long-term outcomes are strongly influenced by environmental continuity and reinforcement beyond institutional contexts (Mansell & Beadle-Brown, 2012). Accordingly, future research should examine the sustainability of assertiveness gains over extended periods and explore the role of community-based reinforcement in maintaining behavioral change after institutional discharge. Such inquiry is critical for translating institutional success into lasting social inclusion.

D. CONCLUSION

This study concludes that behavior modification strategies, particularly modelling and structured instruction (advice giving), are effective in enhancing assertiveness among persons with intellectual disabilities. The intervention resulted in substantial improvements in refusal of inappropriate physical contact and peer social interaction, as reflected by the marked increase in behavioral scores from baseline to post-intervention. The stability of these gains, with only minimal regression observed during the second baseline phase, indicates that the intervention produced sustainable behavioral changes. The findings are consistent with social

learning theory and principles of operant conditioning, demonstrating that observational learning and systematic reinforcement play a crucial role in the acquisition and maintenance of assertive behaviors. Modelling facilitated the imitation of appropriate responses, while structured instruction strengthened memory retention and reduced reliance on external prompts.

Despite these positive outcomes, the study highlights the necessity of ongoing supervision and consistent reinforcement to prevent behavioral decline. Minor regressions observed during follow-up emphasize the influence of environmental factors and caregiver involvement on the sustainability of learned behaviors. Therefore, individualized and continuous intervention planning remains essential. This research provides empirical support for the application of behavior modification techniques within social rehabilitation settings in Indonesia. Integrating these strategies into institutional programs may enhance assertiveness, promote personal dignity, and support social inclusion for persons with intellectual disabilities. Future studies are recommended to examine long-term maintenance of behavioral gains and the effectiveness of community-based reinforcement beyond institutional contexts.

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