

# PATROL MUSIC VALUES–BASED INTERVENTION TO REDUCE SOCIAL WITHDRAWAL: AN R&D STUDY USING CBT

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## ABSTRACT

Social withdrawal in adolescence is a persistent issue that undermines peer relationships, classroom participation, and overall well-being. This study aimed to design and evaluate a culturally grounded counseling module integrating Cognitive Behavioral Therapy (CBT) techniques with traditional Patrol Music to reduce social withdrawal among high school students at SMAN Arjasa. Employing a Research and Development (R&D) approach with the ADDIE model, the module was developed, validated by media and counseling experts, and tested with 60 students identified as displaying withdrawal behaviors. Data were collected through pre- and post-intervention questionnaires using the Social Withdrawal Scale (SWS), alongside fidelity and usability assessments. Results revealed a significant reduction in social withdrawal after the intervention, as indicated by Wilcoxon signed-rank test outcomes ( $Z = -6.074$ ,  $p < 0.001$ ), with large effect sizes. Students also reported greater comfort in group interactions and increased self-confidence during ensemble sessions. The study concludes that embedding CBT strategies within a familiar cultural medium not only enhances engagement but also accelerates cognitive and behavioral change. The findings contribute to adolescent counseling practices by demonstrating the effectiveness of culturally responsive, arts-based interventions. Practically, this module offers schools an innovative approach to character education and student well-being. Future research should replicate the intervention across diverse cultural settings, extend the intervention duration, and compare its effectiveness with digital or standard CBT-based approaches.

**Keywords:** Adolescence, Cognitive Behavioral Therapy, Counseling, Music Intervention, Social Withdrawal

## INTRODUCTION

Social withdrawal refers to a stable tendency to avoid social interactions, limit participation with others, and prefer solitary activity across settings; in adolescence it can range from reduced social frequency to near-isolation, with downstream impacts on social–emotional development, physical health, and academic functioning (Juniandari et al., 2023; Novianti1 et al., 2023). In school contexts, socially withdrawn adolescents frequently struggle to build healthy peer relationships, often reporting discomfort, low self-confidence, and difficulty expressing themselves in everyday exchanges (Juniandari et al., 2023). Developmentally, social competencies should broaden with age; when this progression is delayed or disrupted, maladaptive cycles of avoidance, anxiety, and skill underuse can follow (Ika et al., 2021; Fernando et al., 2020). Empirical and clinical traditions converge in documenting the correlates and consequences of withdrawal—heightened internalizing symptoms, diminished peer acceptance, and constrained opportunities for socio-cognitive growth (Rubin, Coplan, & Bowker, 2009; Coplan & Armer, 2007; Asendorpf, 1990). Multiple determinants can precipitate or maintain withdrawal. Internally, temperament (e.g., behavioral inhibition), cognitive biases, and skill deficits are common drivers; externally, family dynamics, school pressure, and peer climates can exacerbate avoidance (Baharun & Jennah, 2019; Henderson & Zimbardo, 2001; Rubin, Bukowski, & Parker, 2006). Observations in Indonesian secondary schools echo these patterns: students who withdraw are often described as sensitive, hesitant, easily discouraged, shy, anxious, and self-effacing, with a propensity toward isolation and feelings of inferiority (Baharun & Jennah, 2019; Sari, 2020). In SMAN Arjasa—a public high school targeted in this study—informal school observations indicated recurring episodes of solitary behavior, peer avoidance (especially around unfamiliar classmates), and

hesitancy to join collaborative tasks, consistent with prior descriptions of school-based social withdrawal (Sari, 2020). Conceptually, social withdrawal spans overlapping but distinct phenomena such as shyness (approach–avoidance conflict), unsociability (low social approach, low avoidance), and social avoidance (high avoidance irrespective of interest), each with unique risks and intervention needs (Miftahussaadah & Rozi, 2019; Rosita, 2018; Coplan & Armer, 2007). Regulatory difficulties—especially fear and anxiety—play a central role in sustaining withdrawal, often through negative predictions about social situations and self (Agustriana, 2018; Beck, 1976; Beck & Dozois, 2011). Withdrawal can become self-reinforcing when reduced exposure to peers limits skill practice and positive feedback, thereby entrenching negative beliefs (Rubin et al., 2009; Wang, 2021; Hu et al., 2022). Prevalence studies suggest that a notable minority of adolescents ( $\approx 12\text{--}23\%$ ) show persistent withdrawal across early to mid-adolescence, with lower social affiliation and competence and higher anxiety than peers (Barzeva et al., 2020). Symptom presentations vary—from apparent indifference and daydreaming to difficulty expressing feelings, concentrating, and deciding—sometimes accompanied by perceived rejection (Hamasaki et al., 2022; Age & Hamzanwadi, 2020; Pratiwi, 2020). Without timely intervention, quality of life and well-being can erode, underscoring the role of parents, educators, and communities in prevention and response (Wang, 2021; Hu et al., 2022).

The primary problem addressed in this study is the persistence of social withdrawal among students at SMAN Arjasa, which undermines classroom participation, peer collaboration, and readiness for developmental tasks that require communication and teamwork. School personnel report recurring difficulties: some students isolate themselves during group activities, avoid new peer interactions, and show low confidence in public expression (Sari, 2020). A general solution requires an approach that simultaneously targets (a) maladaptive cognitions (e.g., threat overestimation, negative self-schemas), (b) behavioral patterns (e.g., avoidance of group work), and (c) contextual affordances (e.g., supportive peer practices and culturally resonant modalities that scaffold engagement). Cognitive Behavioral Therapy (CBT) offers a well-established, transdiagnostic framework to modify negative thinking, strengthen coping, and systematically increase approach behaviors through graded exposure and behavioral activation (Wahyudi & Casmini, 2021; Rani et al., 2022; Beck, 1976; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). For adolescents, CBT has robust evidence for reducing anxiety and avoidance and improving social functioning in both individual and group formats (Kendall, 1994; Kendall, 2012; James, James, Cowdrey, Soler, & Choke, 2015; Creswell et al., 2014). However, general CBT gains can be amplified when embedded in meaningful, engaging activities that lower social threat, build cohesion, and offer immediate practice of prosocial micro-skills—listening, synchronizing, taking turns, signaling, and co-regulating arousal.

Arts-based and music-based interventions have accumulated evidence for enhancing social engagement, emotional regulation, and group cohesion in youth, including those with internalizing difficulties (Gold, Voracek, & Wigram, 2004; Geretsegger, Elefant, Mössler, & Gold, 2014; Koelsch, 2014; McFerran, 2010). Group music-making, in particular, provides a naturalistic platform for practicing coordination, joint attention, shared timing, and nonverbal communication—mechanisms aligned with the social goals for withdrawn students (Koelsch, 2014; Fancourt, Perkins, Ascenso, & Williamon, 2016). When music-making is culturally embedded, it also leverages identity, pride, and belonging, which can counteract self-consciousness and avoidance (UNESCO, 2010; Wirawan et al., 2018; Haningdia Chintya Zaki Zabrina et al., 2023). In the Indonesian context, musik patrol—a traditional ensemble commonly performed in festivals, communal celebrations, and during Ramadan—combines percussion and melodic instruments in tightly synchronized group performance (D. E. Sari, 2020; J. R. Sari, 2019; Tjahyadi, 2021). Values inherent to musik patrol include togetherness and gotong royong, cultural continuity, expressive and spiritual communication, creativity and innovation, harmonization with nature, informal education through socialization, local identity and pride, and celebratory joy (J. R. Sari, 2019; Wirawan et al., 2018; Tjahyadi, 2021; Subkhi Mahmasani, 2020; Haningdia Chintya Zaki Zabrina et al., 2023). These features map cleanly onto CBT change processes: (a) behavioral activation via structured, positively valenced group activity; (b) graded exposure to social presence, feedback, and performance in a safe, culturally familiar context; (c) cognitive restructuring through immediate disconfirmation of negative predictions (“I will fail in groups”) as students

experience synchronized success; and (d) skills training (turn-taking, signaling, rhythm-based attention, assertive entry) that can generalize back to classroom tasks (Wahyudi & Casmini, 2021; Rani et al., 2022; Koelsch, 2014; Fancourt et al., 2016).

A substantial body of work clarifies mechanisms and risks of adolescent social withdrawal and delineates CBT as an evidence-based response (Rubin et al., 2009; Coplan & Armer, 2007; Hofmann et al., 2012; James et al., 2015; Creswell et al., 2014). Parallel literature supports music therapy and group music-making for social and emotional outcomes in youth (Gold et al., 2004; Geretsegger et al., 2014; Koelsch, 2014; McFerran, 2010). Within Indonesia, descriptive and conceptual scholarship has articulated culturally grounded values of musik patrol—togetherness, cultural heritage, expressive connection, and learning through participation (J. R. Sari, 2019; D. E. Sari, 2020; Tjahyadi, 2021; Wirawan et al., 2018; Subkhi Mahmasani, 2020; Haningdia Chintya Zaki Zabrina et al., 2023). School-based observations also document the profile and correlates of withdrawn behavior in adolescents (Juniandari et al., 2023; Noviantil et al., 2023; Sari, 2020; Age & Hamzanwadi, 2020; Pratiwi, 2020; Wang, 2021; Hu et al., 2022). Despite these advances, we identified four gaps. First, very few studies operationalize a manualized CBT protocol integrated with a culturally embedded ensemble like musik patrol to directly target adolescent social withdrawal in mainstream high schools; most music-based reports focus on general well-being or special populations, not systematically on withdrawal or avoidance (Geretsegger et al., 2014; McFerran, 2010). Second, existing Indonesian accounts of musik patrol emphasize cultural value and social meaning but rarely translate those values into testable CBT mechanisms (e.g., exposure hierarchies, behavioral experiments, cognitive restructuring scripts) (J. R. Sari, 2019; D. E. Sari, 2020; Tjahyadi, 2021). Third, few school-based programs in Indonesia explicitly blend CBT micro-skills (self-monitoring, cognitive reappraisal, problem-solving) with structured, synchronous group performance to reduce avoidance while building peer efficacy and cohesion (Wahyudi & Casmini, 2021; Rani et al., 2022). Fourth, empirical documentation from general education settings like SMAN Arjasa remains sparse—especially designs that include pre-specified outcomes (withdrawal frequency, approach behaviors, social self-efficacy), fidelity checks, and feasibility/acceptability indices (Barzeva et al., 2020; Hamasaki et al., 2022). In short, the literature supports (a) why socially withdrawn adolescents need targeted, evidence-based intervention and (b) why culturally anchored music-making could be a powerful vehicle; but we lack integrative, context-specific trials that combine both into a coherent school intervention with measurable mechanisms and outcomes in Indonesian high schools.

**Objective.** This study aims to design and evaluate a CBT-informed, musik-patrol-based intervention to reduce social withdrawal among students at SMAN Arjasa. Specifically, we seek to (1) translate established CBT components (psychoeducation, self-monitoring, cognitive restructuring, behavioral activation, graded exposure, and social skills practice) into structured musik patrol sessions; (2) assess feasibility and acceptability among students and staff; and (3) estimate preliminary effects on withdrawal indicators (e.g., observed approach behaviors, participation in group tasks, social self-efficacy, and anxiety) (Wahyudi & Casmini, 2021; Rani et al., 2022; Hofmann et al., 2012; Gold et al., 2004). **Statement of novelty / justification of hypothesis.** The novelty lies in embedding CBT change techniques within a local, culturally resonant group performance practice that naturally exercises synchrony, coordination, and shared agency—core antidotes to avoidance and self-consciousness (J. R. Sari, 2019; D. E. Sari, 2020; Koelsch, 2014; Fancourt et al., 2016). We hypothesize that, relative to usual school practices, the integrated program will decrease social withdrawal (reduced solitary behavior/avoidance) and increase prosocial engagement (turn-taking, cooperative participation), mediated by improvements in cognitive appraisals (less catastrophizing/self-devaluation) and behavioral willingness to approach peers (Hofmann et al., 2012; James et al., 2015; Creswell et al., 2014). Because musik patrol is familiar and valued in many Indonesian communities, we expect higher acceptability and lower perceived threat than generic group tasks, facilitating exposure and accelerating skill acquisition (Wirawan et al., 2018; Haningdia Chintya Zaki Zabrina et al., 2023; UNESCO, 2010). **Scope.** The study focuses on students in SMAN Arjasa who display elevated indicators of social withdrawal in classroom observations and teacher reports. The intervention will be delivered in-school by trained facilitators/teachers over a defined cycle of group sessions that weave CBT micro-skills into

progressively challenging musik-patrol practices (e.g., starting with basic rhythmic entrainment and nonverbal signaling; advancing to small-group routines; culminating in joint performance). The scope includes baseline and post-intervention assessments of withdrawal-related behaviors and cognitions, feasibility/acceptability ratings, and qualitative feedback from students and educators. We do not claim generalizability beyond comparable Indonesian high schools; rather, the goal is to establish proof-of-concept for a culturally grounded, school-feasible model that aligns with national emphases on character education, gotong royong, and student well-being (J. R. Sari, 2019; Wirawan et al., 2018).

## METHOD

### Research Design

This study employed a Research and Development (R&D) approach using the ADDIE model—Analyze, Design, Develop, Implement, Evaluate—to produce and test the effectiveness of a counseling-learning product designed to reduce social withdrawal among high-school students. R&D in education systematically (i) identifies needs, (ii) develops a product, and (iii) validates its quality and effectiveness through iterative field trials that bridge theoretical insights and practical application (Sugiyono, 2014; Branch, 2009; Molenda, 2003). The ADDIE cycle was selected for its structured, feedback-rich sequencing, with formative evaluation embedded at each phase and a summative evaluation of the final product's effectiveness (Branch, 2009; Dick, Carey, & Carey, 2015). The ADDIE-guided R&D pathway ensures traceability from local needs to an implementable, counselor-ready artifact, while allowing fit-for-purpose evaluation of educational/counseling products in authentic settings (Branch, 2009; Molenda, 2003; Dick, Carey, & Carey, 2015).

### Setting and Participants

The study was conducted at SMAN Arjasa with the overall population consisting of all enrolled students. From this population, the research focused on those who exhibited indicators of social withdrawal. According to Sugiyono (2014), a population is defined as “a generalization region consisting of objects or subjects with specific qualities and characteristics set by the researcher as the study scope.” To identify the sample, a cluster sampling strategy was employed. Intact class clusters were first selected through simple randomization, and within the chosen clusters, students were screened for social withdrawal. Those who met the inclusion criteria were invited to join the intervention (Machali, 2021; Cochran, 1977). A total of 20 students who screened positive for social withdrawal were included in the study, providing paired pre–post data required for analysis. The inclusion criteria were: (i) enrollment in the selected class clusters, (ii) a screening score above the pre-specified threshold for social withdrawal, and (iii) parental or guardian consent along with student assent. Meanwhile, the exclusion criteria consisted of: (i) currently receiving intensive psychotherapy, (ii) severe sensory or motor impairments that would prevent participation in music-based group activities, and (iii) absence from more than 25% of the scheduled sessions.

Table 1. Sampling frame and eligibility

Stage	Unit / Criterion	Method / Rule	Output
Cluster selection	Class(es) in grade level(s)	Simple random sampling	1–2 intact clusters
Screening	Social withdrawal screener	Score $\geq$ threshold	Eligible invitees
Enrollment	Consent/assent	Complete documentation	Final n = 20 paired cases

### Intervention: Patrol-Music Module with CBT Techniques

The intervention in this study involved the development and implementation of a Patrol-Music Module with Cognitive Behavioral Therapy (CBT) techniques as a research and development (R&D) product. This module was designed as a group-based program that integrates elements of patrol music—a structured, rhythmic percussion practice commonly performed in community contexts—with well-established CBT strategies such as psychoeducation, behavioral activation, cognitive restructuring, and social skills training. CBT is widely supported as an effective framework for addressing emotional and

behavioral change, and in this intervention it was specifically adapted to target social withdrawal symptoms (Beck, 2011; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). The intervention was structured over six sessions, each lasting 60 minutes, delivered across three weeks with two sessions per week. Sessions took place in the school setting and were facilitated by a trained practitioner, accompanied by a counselor who observed and monitored adherence to the program. To accommodate the sample size of 20 students, two separate groups of 8–12 participants were formed, ensuring effective group dynamics and sufficient individual attention. The session arc followed a progressive sequence. The first session engaged participants and introduced psychoeducation on avoidance cycles while facilitating individual goal setting. The second session incorporated behavioral activation through rhythmic activities, such as graduated participation and call-and-response exercises, aimed at reducing avoidance behaviors. The third session introduced cognitive restructuring, helping students identify avoidance-related thoughts and explore thought–feeling–behavior links. The fourth session emphasized social skills development through ensemble practice, focusing on synchrony, timing, coordinated eye contact, and turn-taking. In the fifth session, students participated in graded micro-performances that provided safe exposure opportunities and peer feedback. The sixth and final session was dedicated to consolidation and relapse-prevention planning, equipping participants with strategies for self-monitoring and encouraging home practice with music-based tasks. To ensure fidelity of the intervention, the program incorporated structured supports including a facilitator’s guide, detailed session checklists, and after-session fidelity logs. Mid-cycle supervision sessions were also conducted to monitor adherence, with a target fidelity threshold of at least 80%. These measures ensured that the intervention was implemented consistently and reliably, maintaining both methodological rigor and therapeutic integrity.

Table 2. Theory of change and session mapping

Mechanism	CBT / Music Strategy	Observable Proximal Outcomes
Interrupt avoidance	Behavioral activation through rhythmic participation	Reduced missed turns; increased initiation
Reframe beliefs	Cognitive restructuring w/ peer modeling	Lower “I can’t join” cognitions
Build social efficacy	Ensemble coordination & graded exposures	Improved comfort in group settings
Maintain gains	Self-monitoring & relapse-prevention plan	Sustained participation at follow-up

### Instruments and Measures

The study employed several instruments and measures to capture outcomes and process data. The primary tool was the Social Withdrawal Scale (SWS)—study version, a 20-item Likert-type instrument (1 = strongly disagree to 5 = strongly agree) developed from prior literature on social withdrawal, avoidance, and school engagement. To ensure construct validity, the items underwent content validation by three experts in school counseling, educational psychology, and arts-based pedagogy. Aiken’s  $V$  index was computed for item relevance, with a minimum threshold of  $V \geq 0.80$ ; items scoring below this threshold were revised iteratively until satisfactory agreement was reached (Aiken, 1985). Internal consistency was targeted at Cronbach’s  $\alpha \geq 0.70$ , consistent with reliability standards in educational research (Tavakol & Dennick, 2011). In addition to outcome measures, process metrics were collected to monitor the feasibility and acceptability of the intervention. These included session attendance logs, facilitator fidelity checklist scores, and a single-item Session Usefulness rating (1–5) administered at the end of each meeting. Finally, demographic and background information was gathered to contextualize findings. This included participants’ age, grade, gender (self-reported), and prior extracurricular music experience (yes/no). Together, these instruments provided both quantitative and qualitative insights into the effectiveness and practicality of the Patrol-Music Module with CBT techniques.

Table 3. Measurement plan and psychometric targets

Construct	Instrument	Level	# items	Evidence / Target
Social withdrawal	SWS (adapted)	Primary outcome	20	Content validity Aiken's $V \geq .80$ ; $\alpha \geq .70$
Usability	Session Usefulness	Process	1/session	Mean $\geq 3.5/5$ desirable
Fidelity	Checklist	Process	8–10	Adherence $\geq 80\%$

### Procedures

The procedures of this study followed the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) to ensure systematic product development and testing. In the analysis phase, several aspects were examined. A context scan was conducted to review school policies, counselor workload, timetable constraints, and the availability of space for music activities. Learner analysis involved screening students for social withdrawal and holding brief interviews with teachers and counselors to identify common avoidance patterns. Task and environment analysis further explored the feasibility of using percussion instruments, noise limitations, and appropriate scheduling blocks (Branch, 2009; Dick, Carey, & Carey, 2015; Molenda, 2003). The design phase set the learning goals and outcomes, with the primary aim of reducing students' Social Withdrawal Scale (SWS) total scores and the secondary aim of improving session participation metrics. A detailed blueprint was prepared that included session objectives, activities, required materials (such as percussion instruments, timers, and cue cards), facilitator scripts, and an assessment plan. The evaluation design was also determined at this stage, using a pretest–posttest single-group approach analyzed through the Wilcoxon signed-rank test (Branch, 2009; Dick, Carey, & Carey, 2015). In the development phase, prototypes of the intervention materials were produced. These included a step-by-step Facilitator Guide, a Student Workbook containing reflection prompts, and a Fidelity Checklist. Expert reviews were then conducted with two to three professionals who provided iterative feedback on content, feasibility, and cultural appropriateness. The materials were revised according to the results of Aiken's  $V$  analysis to ensure validity and relevance (Aiken, 1985). The implementation phase began with a two-hour facilitator training to ensure proper understanding of the protocol and CBT-consistent delivery. The intervention was then carried out in six sessions across three weeks, with attendance and fidelity closely monitored. Safety procedures were emphasized throughout, including brief check-ins to detect participant distress and a referral pathway to the school counselor for additional support if needed. Finally, the evaluation phase comprised both formative and summative assessments. Formative evaluation involved usability notes recorded after each session and mid-course adjustments if fidelity dropped below 80% or usability ratings fell under 3 out of 5. Summative evaluation consisted of a pre–post comparison of SWS total scores (and subscales, where applicable), analyzed using the Wilcoxon signed-rank test. Effect sizes were also examined to interpret the magnitude of change (Wilcoxon, 1945; Rosenthal, 1994; Field, 2013).

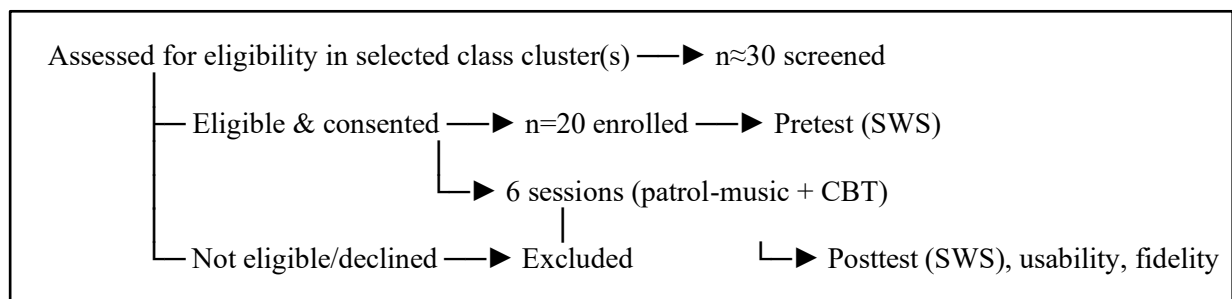


Figure 2. Study flow

### Data Analysis

Data analysis was conducted on paired pre- and post-test observations, limited to complete cases. The scoring procedure involved summing all 20 items of the Social Withdrawal Scale (SWS), yielding possible scores ranging from 20 to 100, where higher scores indicated greater social withdrawal. Any reverse-keyed items were re-coded prior to summation to maintain consistency. In terms of assumptions and statistical choice, the Wilcoxon signed-rank test was selected because of the ordinal-Likert scale measurement and the relatively small sample size ( $n = 20$ ). This nonparametric test allowed comparison of pre- and post-test scores while considering both the direction and magnitude of within-person change (Wilcoxon, 1945; Field, 2013). To further interpret findings, effect sizes were calculated and reported using standardized values with interpretive anchors of approximately .10 (small), .30 (medium), and .50 (large) (Rosenthal, 1994; Field, 2013). In addition to the main analysis, supplementary checks were carried out, including descriptive statistics (median and interquartile range), change plots to visually illustrate score shifts, and sensitivity analyses that excluded participants with session attendance below 75%. Missing data were addressed through pairwise deletion, since the Wilcoxon signed-rank test requires matched pairs, with reasons for any missingness carefully documented. Finally, all tests were conducted using a two-tailed alpha level of .05, ensuring results were interpreted under conventional thresholds for statistical significance.

Table 4. Analysis matrix

Outcome	Metric	Hypothesis	Test	Effect size
Social withdrawal	SWS total	Post < Pre	Wilcoxon signed-rank	$r =$
Usability	Mean usefulness	Mean > 3.5	One-sample test (descriptive emphasis)	d (optional)
Fidelity	% adherence	$\geq 80\%$	Descriptive threshold	—

### Ethical Considerations

The study followed the Belmont Report principles (respect for persons, beneficence, justice) with written parental consent and student assent. Participation was voluntary; students could withdraw at any time without penalty. Data were anonymized with ID codes, and debriefing was provided post-study. When distress or broader mental-health needs were detected, students were referred to the school counseling service (Belmont Report, 1979; ABKIN, 2011).

### RESULTS AND DISCUSSIONS

The research and development process proceeded through four main stages: pre-development or field study, product design, expert validation, and product implementation and testing. In the pre-development stage, field observations and interviews revealed that adolescents frequently experience social withdrawal, driven by both internal factors such as low self-confidence and unresolved emotional issues, as well as external factors like peer rejection and family conflict. Some students adopted withdrawal as a coping mechanism, while others used it as a form of emotional release. These findings emphasized the need for culturally responsive counseling interventions to foster healthier communication and social integration. During the product design stage, a counseling module was developed by integrating Cognitive Behavioral Therapy (CBT) techniques with Patrol Music, a traditional cultural art form in East Java. In line with UNESCO's (2000) recommendation that character education should incorporate cultural values, CBT elements such as cognitive restructuring, behavioral activation, and reframing were contextualized within the rhythm, symbolism, and participatory nature of Patrol Music. The expert validation stage involved assessments from two groups: media experts and guidance and counseling (BK) experts. Media experts evaluated the design, layout, language, and visual appeal, rating the module highly attractive in fonts, cover design, color gradients, and page visuals, with language clarity and structure assessed as very good. BK experts confirmed the accuracy of counseling procedures, usefulness for target students, and practical feasibility. Overall, both groups concluded that the product was "worthy with minor revisions." In the final stage of product implementation and testing,

the intervention was carried out with 60 high school students (grades X and XI) at SMAN Arjasa. Pre-test and post-test questionnaires were administered to measure baseline social withdrawal and subsequent changes after the CBT with Patrol Music intervention. Comparative results demonstrated a reduction in withdrawal scores for most students, indicating meaningful improvements in their social participation. Comparing the tables, most students reported lower withdrawal scores post-treatment, indicating improvement in social participation.

Tabel 5. Wilcoxon Test Results

Ranks	N	Mean Rank	Sum of Ranks
Negative Ranks (Post < Pre)	54	31.29	1689.50
Positive Ranks (Post > Pre)	5	16.10	80.50
Ties	1	—	—
Total	60	—	—

Based on the Wilcoxon test results in Table 5, it can be interpreted that there was a significant reduction in social withdrawal scores after the CBT-based counseling intervention integrated with Patrol Music. This is indicated by the number of negative ranks (Post < Pre) totaling 54 students, meaning that the majority had lower scores after the treatment compared to before. The mean rank for the negative ranks group was 31.29, with a sum of ranks of 1689.50, showing the dominance of score reduction. In contrast, only 5 students experienced an increase in scores (positive ranks) with a mean rank of 16.10 and a sum of ranks of 80.50, while 1 student showed no change (ties). These findings confirm that counseling interventions using CBT combined with Patrol Music culture were effective in reducing students' social withdrawal behaviors. The overwhelming proportion of negative ranks compared to positive ranks indicates a strong tendency for students, after the intervention, to engage more in social participation, build peer interactions, and demonstrate more adaptive behavior than before the intervention. Thus, this result provides empirical evidence that a culturally contextualized counseling model can serve as an effective strategy to address social withdrawal problems among adolescents.

### CBT Effectiveness in Social Withdrawal

The findings confirm prior research that CBT is effective in reducing maladaptive behaviors by restructuring cognition and promoting healthier coping strategies (Beck, 2011; Hofmann et al., 2012). Adolescents who participated in Patrol Music-based CBT reported increased ability to express themselves and reframe negative thoughts, aligning with studies that show CBT reduces avoidance and improves social functioning (Renshaw & Cook, 2017; Hofmann & Gómez, 2017).

### Cultural Adaptation of Counseling

This study innovates by embedding CBT within local cultural expressions. Similar efforts have been noted in culturally adapted CBT for indigenous communities, where local art forms enhance engagement and relevance (Hinton & Patel, 2017; Kirmayer, 2012). UNESCO (2000) also emphasizes that culturally grounded approaches foster identity and resilience. By combining Patrol Music with CBT, this study extends the literature on arts-based therapeutic interventions (Daykin et al., 2017; Clift & Camic, 2016).

### Active Music-Based Interventions

Music interventions are widely recognized as therapeutic for adolescents, especially in addressing emotional and social issues. Saarikallio & Erkkilä (2007) highlight music's role in emotion regulation, while McFerran et al. (2019) found group music programs reduced isolation. Our findings align with these results, showing that Patrol Music—a participatory group performance—enhanced students' sense of belonging, reducing tendencies toward withdrawal.

### Comparison with Digital or Non-Cultural Approaches

While many recent interventions use digital media (e.g., online CBT, apps for anxiety reduction; Andersson et al., 2019; Hollis et al., 2017), this study demonstrates that offline, culture-based



approaches remain powerful. Unlike technology-based interventions, Patrol Music carries communal value, offering both cognitive restructuring and cultural bonding. This highlights the importance of contextual fit in adolescent counseling.

### **Importance of Findings**

The results provide evidence that culturally grounded counseling modules can effectively reduce social withdrawal. Adolescents are more likely to engage when interventions connect to their cultural identity (Kirmayer, 2012). The Patrol Music-based CBT module not only improved individual coping but also strengthened collective bonds, critical in adolescence where peer connectedness predicts wellbeing (Allen & Loeb, 2015). Schools in Indonesia and other culturally diverse settings can integrate arts-based counseling programs as preventive and interventive strategies. Embedding CBT within cultural traditions aligns with the Indonesian national education vision (Kemendikbud, 2021) that emphasizes character development rooted in local wisdom. This also supports global goals on inclusive and culturally sensitive education (UNESCO, 2016). This research contributes to counseling theory by demonstrating how cognitive-behavioral mechanisms (thought monitoring, reframing, exposure) can be enhanced through cultural vehicles (music, rhythm, collective performance). It provides empirical support for integrating psychosocial models with cultural psychology frameworks (Heine, 2016). An unexpected finding was that students reported greater comfort discussing emotions during musical sessions compared to conventional counseling. Music created a “safe space” that lowered communication barriers, a finding echoed by Koelsch (2014) on music’s neuropsychological effects in fostering trust and empathy.

### **Limitations and Future Research Directions**

This study has several limitations that should be acknowledged. First, the findings are based on data collected from a single school (SMAN Arjasa), which may restrict the generalizability of the results to broader student populations. Second, the relatively short duration of the intervention limited the ability to capture long-term behavioral changes. Third, the use of self-report questionnaires introduces the potential for response bias, as students may have under- or over-reported their levels of social withdrawal. To address these limitations, future research should replicate the study across multiple schools and diverse settings, extend the duration of the intervention, and adopt mixed-method approaches that combine quantitative measures with qualitative interviews to gain richer insights into students’ experiences. Furthermore, subsequent work could compare the effectiveness of Patrol Music-based CBT with standard CBT modules or emerging digital counseling interventions, explore the long-term impacts on academic performance and peer relationships, and examine adaptability for other cultural art forms such as gamelan, angklung, or traditional dance. Finally, testing the scalability of this culturally contextualized counseling model for inclusion in national counseling curricula would offer valuable insights into its broader applicability and sustainability.

### **CONCLUSION**

This study aimed to design and evaluate the effectiveness of a Cognitive Behavioral Therapy (CBT)-based counseling module integrated with Patrol Music as an intervention to reduce social withdrawal among students at SMAN Arjasa. The key findings revealed a statistically significant decrease in students’ social withdrawal scores after the intervention ( $Z = -6.074, p < 0.001$ ), with most participants reporting improved participation in group activities, greater self-confidence, and enhanced social skills. Practically, the module was found to be feasible, engaging, and culturally relevant, with expert validation rating it as “worthy with minor revisions.” The main research contribution lies in its innovation of embedding CBT mechanisms (cognitive restructuring, behavioral activation, and social skills training) into a culturally grounded practice that emphasizes gotong royong (mutual cooperation), togetherness, and social identity. This approach enriches counseling literature by offering a context-specific model that is not only empirically effective but also aligned with Indonesian local wisdom, thereby expanding theoretical and practical horizons of culture-based psychosocial interventions in secondary schools.

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