GROUP GUIDANCE PLUS ASSERTIVENESS TRAINING TO IMPROVE STUDENTS' INTERPERSONAL COMMUNICATION: ONE-GROUP PRETEST–POSTTEST STUDY

Lailatul Karimah[1], Nasruliyah Hikmatul Maghfiroh[2*], Bhennita Sukmawati[3]
[123] Universitas PGRI Argopuro Jember, Indonesia
*Corresponding Author: nasruliyahhikmatulmaghfiroh@gmail.unipar.ac.id

ABSTRACT
Many vocational high school students experience barriers to interpersonal communication, such as low self-confidence and reluctance to express their opinions, while group guidance using assertiveness training has been recognized as an effective approach to address these challenges. This study aimed to examine the effectiveness of group guidance with assertiveness training in improving students' interpersonal communication skills. The research employed a pre-experimental one-group pretest–posttest design involving eight purposively selected 11th-grade students from a total of 32 at SMK Abdul Aziz. A validated interpersonal communication questionnaire was used to collect data, which were analyzed using the Wilcoxon Signed Rank Test. The findings revealed that all participants showed improvement (positive ranks = 8; negative = 0; ties = 0); the mean score increased from M = 97.6 (SD = 7.5) to M = 136.0 (SD = 7.2), indicating a gain of 38.4 points. The Wilcoxon test produced $Z = -2.527$, $p = .012$ ($< .05$), confirming a statistically significant difference between pretest and posttest results. These outcomes demonstrate that group guidance incorporating assertiveness training effectively enhances vocational students' interpersonal communication. The study provides empirical support for counselors and educators to integrate assertiveness training into preventive and developmental counseling services, contributing to a more positive communication climate in schools. Future research should involve larger samples and control groups, extend intervention periods to assess long-term effects, and explore related psychosocial variables such as self-confidence, social anxiety, and problem-solving skills.

Keywords: Assertiveness Training; Group Guidance; Interpersonal Communication; Vocational High School Students; Wilcoxon Test

INTRODUCTION

Interpersonal communication is a key competency underpinning students' academic success, psychological well-being, and social relationships in secondary schools. In the communication studies tradition, communicative competence is defined as the ability to choose appropriate communicative behaviors to achieve interpersonal goals—covering dimensions such as self-disclosure, empathy, interaction management, supportive communication, and assertiveness (Wiemann, 1977; Rubin & Martin, 1994). Standardized instruments such as the Interpersonal Communication Competence Scale (ICCS) and the Interpersonal Competence Questionnaire (ICQ) map these competencies onto domains relevant to adolescents and university students, including initiating relationships, managing conflict, expressing disagreement, and providing emotional support (Rubin & Martin, 1994; Buhrmester, Furman, Wittenberg, & Reis, 1988). Recent evidence also shows that communication competence correlates with students' self-esteem and well-being, underscoring the urgency of structured interventions to strengthen these skills in school environments (van Tonder & Swart, 2023). Within the school ecosystem, group-based services (group guidance/counseling) have strong theoretical and empirical foundations; Yalom's therapeutic factors—such as universality, altruism, instillation of hope, interpersonal learning, and group cohesion—facilitate effective change in social behavior when group dynamics are professionally managed (Yalom & Leszcz, 2020; Rusu et al., 2022; Burlingame, McClendon, & Yang, 2018). Beyond the conceptual grounding, meta-analyses and systematic reviews show that school-based group services exert positive effects on a wide range of students' psychosocial

outcomes. From early studies (Prout & DeMartino, 1986; Prout, 1998), the effectiveness of school interventions—including group counseling/psychotherapy—has been confirmed with meaningful effect sizes; these findings were echoed in subsequent work with children and adolescents (Hoag & Burlingame, 1997) and, more broadly, in school-based mental-health interventions, albeit with calls to strengthen methodological quality (Shahraki-Sanavi et al., 2020; Grande et al., 2023). The evidence base for group formats continues to grow—both for group cognitive-behavioral therapy (G-CBT) and contextual approaches such as group ACT for adolescents—indirectly reinforcing the promise of group services as vehicles for social-affective learning in schools (Bortoncello et al., 2022; Burley et al., 2024). Within the spectrum of communication competencies, assertive behavior occupies a central position. Assertiveness is understood as the ability to express thoughts, feelings, and needs honestly and firmly while respecting others' rights. Intervention literature shows that assertiveness training improves communication skills, reduces stress/anxiety, and enhances clinical/academic competence among student populations in both schools and higher education (Noh, Kim, & Kim, 2021; ElBarazi et al., 2024; Golshiri et al., 2023). In several contexts, assertiveness training—developed on social learning principles—has been shown to decrease social anxiety while increasing assertiveness; digitally guided initiatives are also being explored (Cantero-Sánchez et al., 2021; Di Consiglio et al., 2023). These findings provide strong grounds for strengthening assertiveness within group settings to improve secondary-school students' interpersonal communication. (ScienceDirect

Field realities across a number of secondary/vocational schools show students who are reluctant to voice opinions, hesitant to express disagreement, or struggle to maintain openness and empathy in peer relations. These challenges are compounded as classroom learning increasingly demands collaboration, presentation, and role negotiation, while formal psychosocial support in many schools—especially in resource-constrained contexts—remains uneven (Grande et al., 2023). The main problem of this study, therefore, concerns students' low interpersonal communication skills, manifesting as non-assertive behavior (passive/aggressive), limited adaptive self-disclosure, and insufficient interaction management during group work. In general, the solution proposed by the literature is to provide structured group-based interventions—leveraging therapeutic factors and social learning dynamics—with assertiveness training as the core module for practicing communicative behaviors (Yalom & Leszcz, 2020; Burlingame et al., 2018; Prout, 1998). (PMC

Experimental studies show that assertiveness training affects multiple indicators of interpersonal communication. Among nursing students, an SBAR-plus-assertiveness program significantly improved communication skills, reduced clinical-practice stress, and enhanced competence (Noh et al., 2021). Assertiveness training for university students also reduced anxiety, stress, and depression (ElBarazi et al., 2024); in another context, a problem-solving-plus-assertiveness program improved self-esteem and mental health in school settings (Golshiri et al., 2023). Social-learning-based training decreased social anxiety and increased assertive behavior (Cantero-Sánchez et al., 2021), while an internet-guided imagery protocol to promote assertiveness has begun to demonstrate feasibility (Di Consiglio et al., 2023). Consistent with these results, the interpersonal-competence literature affirms that assertiveness, self-disclosure, conflict management, and emotional support are trainable and can be measured reliably in adolescents and university students (Rubin & Martin, 1994; Buhrmester et al., 1988). Accordingly, integrating assertiveness training into group guidance services at the secondary level is a specific, evidence-based solution to improve students' interpersonal communication. (ScienceDirect

Although the evidence base supports the effectiveness of assertiveness training and group services, several research gaps remain relevant to this study. First, much assertiveness-training research has been conducted with nursing/health-science students or non-school populations, limiting generalizability to vocational/technical high-school students (Noh et al., 2021; ElBarazi et al., 2024; Eskiyurt & Başkaya, 2025). Second, within secondary-school contexts, many studies emphasize mental-emotional outcomes (e.g., anxiety, self-esteem) rather than interpersonal communication as the primary outcome measured with standardized constructs (Rubin & Martin, 1994; Buhrmester et al., 1988). Third, reviews in low- and middle-income countries (LMICs) highlight the scarcity of validated school-based mental-health interventions—both in design and replication—necessitating locally relevant applied studies (Grande et al., 2023). Fourth, while classic and contemporary meta-analyses support group effectiveness for

children/adolescents (Hoag & Burlingame, 1997) and identify group cohesion as a predictor of outcomes (Burlingame et al., 2018), very few studies explicitly embed assertiveness training within group guidance formats for vocational high-school students using rigorous pre–post measurements. Finally, design limitations (e.g., one-group pretest–posttest, small samples) are still common in school studies, so positive early findings must be accumulated to build a stronger evidence base in Indonesia's vocational context. These gaps inform the design and implementation of the present study.

Based on the foregoing background and research gaps, the objective of this study is to test the effectiveness of group guidance services incorporating assertiveness training to improve students' interpersonal communication. Specifically, the study focuses on Grade XI students at a vocational high school, employing a one-group pretest–posttest design to measure changes in interpersonal-communication scores following four structured intervention sessions. The hypotheses are: H_0: there is no significant difference in interpersonal-communication scores before and after the intervention; H_1: there is a significant difference in interpersonal-communication scores before and after the intervention. The study's novelty lies in (a) integrating an assertiveness-training module adapted to Indonesian vocational students—whose task demands and classroom culture differ from general academic settings; (b) focusing on communication-specific outcomes (interpersonal-communication competence) rather than only broad indicators such as anxiety or self-esteem; and (c) strengthening the rationale for group intervention by combining Yalom's therapeutic factors with evidence for cohesion as an active ingredient of change (Yalom & Leszcz, 2020; Burlingame et al., 2018). The scope is limited to one school, a purposively selected sample of students identified with interpersonal-communication difficulties, four sessions of service delivery, and a very short evaluation horizon (pre–post). Accordingly, this study is positioned as a locally grounded proof-of-concept to enrich the intervention literature on interpersonal communication in Indonesian secondary schools, while addressing the evidence gaps in LMICs highlighted by systematic reviews (Grande et al., 2023).

METHOD

Research design

This study employed a quantitative, pre-experimental one-group pretest–posttest design to evaluate the effectiveness of group guidance with assertiveness training in improving students' interpersonal communication. The design is appropriate for practice-embedded school counseling where initial feasibility and short-cycle improvement are prioritized, acknowledging threats to internal validity that are addressed through procedural controls (Shadish, Cook, & Campbell, 2002). Pretest (O_1) and posttest (O_2) were administered surrounding a four-session intervention (X): $O_1 \rightarrow X \rightarrow O_2$. Reporting follows APA JARS-Quant guidance for quantitative studies (Appelbaum et al., 2018).

Setting and participants

The study was conducted at SMK Abdul Aziz, Curahlele, Jember, Indonesia during the 2024/2025 academic year (November 2024–August 2025). The population comprised 32 students of Grade XI. Using purposive sampling, in consultation with the Guidance and Counseling (BK) teacher and homeroom teachers, we identified 8 students who met the inclusion criteria: (a) teacher and self-reported difficulties in expressing opinions, refusing requests, or initiating/maintaining conversations; (b) scores below the cohort median on the interpersonal communication screening; (c) willingness to participate in all sessions. Exclusion criteria: ongoing individual psychotherapy or severe social anxiety requiring clinical referral. Although the sample is small, one-group feasibility studies in school settings commonly use pragmatic samples to establish local effectiveness and refine procedures (Julious, 2005; Whitehead et al., 2016). Related Indonesian school-based studies using group guidance and assertiveness training report positive communication outcomes and inform our implementation parameters (Ayidah Nasution & Siregar, 2024; Putri & Wahyuningrum, 2021; Kurniawan & Andini, 2019; Sari & Dewi, 2021).

Intervention: group guidance with assertiveness training

Assertiveness training helps students express thoughts, feelings, and needs clearly while respecting others' rights—distinct from passive or aggressive patterns (Corey, 2013; Alberti & Emmons, 2008).

Delivered in a group guidance format, it leverages therapeutic factors such as universality, interpersonal learning, and feedback among peers to accelerate skill acquisition (Yalom & Leszcz, 2020) and aligns with school prevention/developmental services (Gazda in Prayitno, 2018; Kurniawan & Andini, 2019). Group process management followed staged development principles (Tuckman, 1965).

The program consisted of four 70–90-minute sessions over two weeks (2 sessions/week), facilitated by a school counselor and a trained co-facilitator. Group size was eight. Sessions were held in a quiet counseling room with movable chairs to support circle seating. Facilitators received a 2-hour briefing and used fidelity checklists per session.

Each meeting included: (1) warm-up and review; (2) psychoeducation or modeling; (3) role-play with graduated scenarios; (4) structured peer feedback (verbal and written); (5) action planning/home practice. Materials comprised facilitator slides, behavioral rehearsal scripts, assertive rights lists, and monitoring logs (Corey, 2013; Alberti & Emmons, 2008).

Table 1. Session-by-session plan and objectives

Session	Focus & objectives	Key methods/activities	Take-home practice
1	Orientation; norms; "what is assertiveness?"; assertive rights	Group contract; psychoeducation; modeling assertive vs. passive/aggressive responses	Identify one situation this week to try an *I-statement*
2	Verbal/nonverbal skills (I-statements, tone, eye contact); rights vs. responsibilities	Micro-skills drills; mirroring; feedback rounds	Practice "refusing politely" in a real interaction; log outcome
3	Assertiveness in peer/academic contexts (groupwork, disagreement)	Role-plays of classroom/canteen/team tasks; cognitive reframing	Prepare one assertive request to a classmate/teacher
4	Consolidation; relapse prevention; transfer to school/life	Simulation exam (mixed scenarios); coping plans; celebration	Two-week action plan and BK follow-up schedule

Facilitators completed fidelity checklists (coverage of objectives, time-on-task). Attendance ≥75% defined adherence. After each role-play, peers rated the performer on a 5-item assertive behavior checklist (voice volume, eye contact, clarity, respectfulness, boundary statement) to provide immediate formative feedback (Yalom & Leszcz, 2020).

Measures

We used a 32-item Likert (1 = Strongly Disagree to 5 = Strongly Agree) Interpersonal Communication Scale adapted for senior high-vocational students, covering five dimensions often emphasized in school counseling literature—openness, empathy, supportive stance, positive regard, and equality (Devellis, 2012; Lestari & Yuliani, 2020). Higher scores indicate better communication.

Table 2. Operationalization and blueprint of the ICS

Dimension	Behavioral indicators	#Items	Sample item
Openness	States opinions/feelings appropriately	7	"I can say what I think without demeaning others."
Empathy	Active listening; perspective-taking	7	"I try to understand my friend's point of view before replying."
Supportiveness	Helpful, non-threatening responses	6	"I respond in ways that help the conversation continue."
Positive regard	Respect; non-judgmental tone	6	"I keep a respectful tone even when I disagree."
Equality	Turn-taking; valuing others' rights	6	"I give others a fair chance to speak in groups."

Content validity and reliability

Three university experts in guidance and counseling conducted expert judgment on item relevance and clarity. Aiken's V was computed for each item (Aiken, 1985); items with $V \geq 0.70$ were retained or revised. Internal consistency was assessed using Cronbach's alpha on pretest data (Cronbach, 1951). Scale preparation and revision were guided by instrument development literature (Devellis, 2012) and local school-based adaptations (Kurniawan & Andini, 2019).

Data management and statistical analysis

Response sheets were double-entered and cross-checked. Missing item responses ≤10% per scale were imputed using person-mean substitution within dimension; cases with >10% missing were excluded from analysis of that outcome (Field, 2018).

Given the small sample and ordinal Likert data, distributional assumptions were inspected with Shapiro–Wilk tests and Q–Q plots (Shapiro & Wilk, 1965). The Wilcoxon Signed-Rank Test compared paired pretest–posttest scores (Wilcoxon, 1945), consistent with similar Indonesian studies reporting significant improvements after group guidance with assertiveness training (Ayidah Nasution & Siregar, 2024; Putri & Wahyuningrum, 2021; Sari & Dewi, 2021).

Effect size was expressed as $r = Z/\sqrt{N}$ and as the matched-pairs rank-biserial correlation to aid interpretation with small samples (Kerby, 2014). Significance was set at $\alpha = .05$ (two-tailed). Analyses were performed in IBM SPSS (version 26 or later) with hand-checked calculations for effect sizes (Field, 2018).

Table 3. Analysis plan and decision criteria

Research question	Variables	Test	Effect size	Decision rule
Does group guidance with assertiveness training improve interpersonal communication?	ICS total (post) vs. ICS total (pre)	Wilcoxon Signed-Rank	r ($Z/\sqrt{N}$); rank-biserial	Reject H_0 if $p < .05$ and median(post) > median(pre)
Do dimensions show similar change?	Dimension scores (post vs. pre)	Wilcoxon Signed-Rank (per dimension)	r	Same as above (Bonferroni-adjust optional)
Is gain associated with adherence?	ΔICS vs. attendance (0–4)	Spearman ρ (exploratory)	ρ	Interpret magnitude; $\alpha = .05$ (exploratory)

Risk management, ethics, and confidentiality

The intervention presents **minimal risk** (skills training in communication). Potential discomfort during role-plays was mitigated through voluntary participation in examples, opt-out clauses for any scenario, and supportive debriefs (Yalom & Leszcz, 2020). The study adhered to school and university ethical norms for educational research: parental consent and student assent were obtained; participation had no academic consequences; identifiers were removed at analysis; data were stored in password-protected files. Students needing additional support were referred to BK for optional individual sessions.

Quality assurance and validity safeguards

To mitigate common threats in one-group designs—history, maturation, and testing effects—we (a) ran a short intervention window (≈2 weeks), (b) used a standardized instrument and administration procedures, (c) maintained the same room/facilitator schedule, and (d) monitored fidelity with checklists (Shadish, Cook, & Campbell, 2002). The blueprint-based instrument development, expert content validation (Aiken's V), and internal consistency estimation strengthened measurement validity (Aiken, 1985; Cronbach, 1951; Devellis, 2012). Local precedents for feasibility and positive outcomes in

Indonesian schools further justify the selected dosage and procedures (Ayidah Nasution & Siregar, 2024; Putri & Wahyuningrum, 2021; Kurniawan & Andini, 2019; Sari & Dewi, 2021).

RESULTS AND DISCUSSIONS

This study examined whether group guidance (bimbingan kelompok) with assertiveness training improves students' interpersonal communication. Using a one-group pretest–posttest design (Figure 1), eight purposively selected students completed a 36-item interpersonal communication questionnaire before and after a four-session intervention. As summarized in Table 2, every participant's score increased from pretest to posttest; no decreases or ties were observed. The mean score rose from M = 97.6 (SD = 7.5) to M = 136.0 (SD = 7.2), an average gain of 38.4 points. Normality (Shapiro–Wilk) indicated non-normal pretest scores, so we used the Wilcoxon signed-rank test, which showed a statistically significant improvement ($Z = -2.53$, $p = .012$). The positive-rank count was 8, negative 0, ties 0 (Table 3). The Hodges–Lehmann median improvement was 38.5 points (based on the pairwise differences), indicating a large and consistent shift upward. For interpretability, the rank-biserial correlation equals +1.00 here (sum of positive ranks = 36 out of the maximum 36), reflecting perfect directionality of gains across all students. Reporting effect size complements significance tests and improves the practical meaning of results (e.g., r/rank-biserial, HL median) (Maher et al., 2013).

Table 4. Pretest and Posttest Interpersonal Communication Scores (n = 8)

No.	Initials	Pretest	Posttest	Difference	Baseline Category	Final Category
1	Nl	95	135	+40	Low	High
2	Df	102	142	+40	Moderate	High
3	Hs	88	125	+37	Low	High
4	Ma	110	145	+35	Moderate	High
5	Qa	92	130	+38	Low	High
6	Sa	100	140	+40	Moderate	High
7	Dm	89	128	+39	Low	High
8	Ws	105	143	+38	Moderate	High

Pretest M = 97.6 (SD = 7.5); Posttest M = 136.0 (SD = 7.2).

Table 5. Wilcoxon Signed-Rank Test Summary

	N	Mean Rank	Sum of Ranks
Negative Ranks	0	0.00	0.0
Positive Ranks	8	4.50	36.0
Ties	0	—	—
Total	8		

Wilcoxon signed-rank: $Z = -2.53$, $p = .012$.

Alignment With and Departure From the Initial Hypotheses

The alternative hypothesis (H_1) predicted a significant pre–post difference favoring the intervention. Results support H_1: all students improved, and the improvement was statistically significant. The null hypothesis (H_0) of "no difference" is not supported. The direction and uniformity of change align with expectations that assertiveness training—especially when embedded in a supportive group guidance format—would help students voice opinions, refuse inappropriately demanding requests, express disagreement respectfully, and communicate needs clearly (Speed et al., 2017).

Pattern, Trend, and Relationship Analyses

The universal positive ranks (8/8) demonstrate monotonic improvement: every participant scored higher at posttest. In practical terms, this indicates that the dose and structure of four sessions were adequate to trigger measurable behavioral/attitudinal change for this sample. Such consistency is uncommon in heterogeneous school samples and suggests a good person–intervention fit. The Hodges–Lehmann median gain of 38.5 and a rank-biserial correlation of +1.00 indicate a very large effect. For

applied readers, this means the probability that a randomly selected student's posttest score exceeds their pretest score is ~100% in this dataset—an intuitive way to convey practical significance (see guidance on effect-size reporting) (Maher et al., 2013). Three elements of the delivery likely underpinned these outcomes: 1) Psychoeducation & Modeling: Clear instruction about assertive vs. passive/aggressive responding and live modeling of assertive scripts prime students to notice cues and try new responses. Evidence from assertiveness curricula points to improved assertive attitudes and behaviors in student populations following such instruction (Omura et al., 2018; Gültekin & Özdemir, 2018; Eskiyurt et al., 2025). 2 Role-Play + Feedback Loops: Structured role-plays with immediate, specific feedback help students consolidate skills (tone, volume, posture, "I-statements"). Studies using rehearsal plus feedback show larger gains than didactic formats alone (Omura et al., 2018; Cantero-Sánchez et al., 2021). 3)Group Dynamics: The group setting amplifies peer modeling, normalization, and cohesion, all of which are associated with better outcomes in youth group interventions (Hoag & Burlingame, 1997 meta-analysis).

Assertiveness Training With Students

Our findings echo a growing literature showing that assertiveness training improves students' communication and social functioning in educational and health professions contexts (Omura et al., 2018; Gültekin & Özdemir, 2018; Eskiyurt et al., 2025). Although some authors have argued that the stand-alone evidence base for assertiveness training is more modest than for broad CBT packages, recent reviews still conclude that assertiveness-focused social skills training is beneficial across problems and settings (Speed et al., 2017).

Effectiveness of Group-Format Interventions

The meta-analytic consensus is that group treatments for children/adolescents typically outperform wait-list/placebo and often produce moderate effects (Hoag & Burlingame, 1997). Our uniformly positive rank pattern is therefore directionally consistent with the group literature, though the magnitude here is unusually large—likely due to targeted sampling (students prescreened for low interpersonal communication) and tight alignment between needs and training content.

Measurement Relevance

While we used a custom instrument validated by expert judgment, classic measurement work (e.g., Interpersonal Communication Competence Scale) delineates key dimensions (self-disclosure, empathy, assertiveness, interaction management) that mirror our training targets, lending construct coherence to the observed gains (Rubin & Martin, 1994).

Emerging Modalities

Digital and imagery-supported approaches (e.g., ComunicaBene) also report improvements in assertiveness-related behaviors, suggesting our results are consistent with broader competency-building trends in communication training (Di Consiglio et al., 2023).

Importance and Contribution

For vocational high-school (SMK) contexts where students must advocate for themselves during practicums, teamwork, and workplace interactions, assertive communication is pivotal. Gains of ~38–40 points on a 36–180 scale indicate a clinically/educationally meaningful shift, not just a statistical artifact. Students who were low/moderate at baseline moved to high by posttest (Table 2), implying real-world readiness to: express disagreements respectfully, request help/clarify tasks, set boundaries with peers, and participate actively in group learning. Results reinforce social-learning accounts that explicit instruction + modeled rehearsal + contingent feedback produce behavioral change in interpersonal domains. In the group guidance frame, peer feedback and observational learning are plausible mechanisms, consistent with the group therapy/process literature (Hoag & Burlingame, 1997) and assertiveness-skills programs (Omura et al., 2018; Gültekin & Özdemir, 2018; Speed et al., 2017). The absence of any negative ranks (no declines) is noteworthy. Two complementary explanations are likely:

1) Targeted Eligibility: Sampling eight students with clearly identified communication difficulties created headroom for improvement; floor effects at baseline reduce the chance of decline. 2) Person–Method Fit: The training tasks (I-statements, respectful disagreement, refusal scripts) closely matched the students' presenting difficulties, increasing relevance and engagement—an ingredient associated with larger effects in skills training (Omura et al., 2018; Cantero-Sánchez et al., 2021).

Implications for Practice and Policy

The implications for practice and policy suggest that a four-session structure—progressing from psychoeducation to modeling, role-play, feedback, and home practice—is both feasible within school timetables and impactful for skill acquisition. Implemented in small groups, the program leverages normative feedback and observational learning consistent with youth group-treatment evidence (Hoag & Burlingame, 1997). Practically, brief assertive scripts (e.g., "I feel… when… I need…") and targeted behavioral rehearsal should be tailored to common classroom dilemmas such as disagreeing during group tasks or refusing inappropriate requests. Peer-coaching checklists can scaffold precise feedback on eye contact, tone, clarity, and respect (Omura et al., 2018). To sustain gains beyond the core sessions, schools can add digital "boosters," including short video prompts or guided-imagery homework (Di Consiglio et al., 2023). Embedding this assertiveness-focused group guidance within school counseling can strengthen student well-being, improve classroom climate, and enhance work-readiness—particularly salient for vocational (SMK) pathways—while complementing broader life-skills agendas.

Directions for Future Research

Future research should prioritize controlled trials using randomized wait-list or control designs to isolate causal effects and should recruit larger, more diverse SMK cohorts to test moderators such as gender, baseline anxiety, and field of study. Measurement can be strengthened by incorporating validated scales (e.g., the Interpersonal Communication Competence Scale) and observer-rated rubrics during role-plays to achieve multi-method assessment (Rubin & Martin, 1994). Maintenance and transfer ought to be evaluated with 1–3-month follow-ups and ecological indicators (teacher ratings, disciplinary incidents, internship supervisor feedback). Dose–response questions merit comparison of 2-, 4-, and 6-session versions, including booster conditions. Finally, hybrid modalities—particularly online delivery and imagery-assisted modules—should be examined as adjuncts to extend accessibility and retention of skills (Di Consiglio et al., 2023).

CONCLUSION

This study aimed to evaluate the effectiveness of group guidance services using an assertiveness training technique in improving the interpersonal communication of students at SMK Abdul Aziz; core findings indicate a significant increase from the pretest mean ($M = 97.6$, $SD = 7.5$) to the posttest mean ($M = 136.0$, $SD = 7.2$), with all participants ($n = 8$) showing gains (positive ranks = 8; negative = 0; ties = 0), and the Wilcoxon signed-rank test yielding $Z = -2.527$, $p = .012$, evidencing improvements in key facets such as self-disclosure, confidence in expressing opinions, and active listening; the study contributes contextual empirical evidence from an Indonesian vocational school that group-based assertiveness training effectively strengthens interpersonal communication, provides a practical four-session intervention protocol usable by school counselors, and illustrates the value of nonparametric evaluation (Wilcoxon) for small-sample pre–post designs that can be replicated and extended to related psychological outcomes (e.g., self-confidence, social anxiety) in future research.

REFERENCES

Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement, 45*(1), 131–142. https://doi.org/10.1177/0013164485451012

Appelbaum, M., Cooper, H., Kline, R. B., Mayo-Wilson, E., Nezu, A. M., & Rao, S. M. (2018). Journal article reporting standards for quantitative research in psychology: The APA Publications and Communications Board task force report. *American Psychologist, 73*(1), 3–25. https://doi.org/10.1037/amp0000191

Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology, 55*(6), 991–1008. https://doi.org/10.1037/0022-3514.55.6.991

Burlingame, G. M., McClendon, D. T., & Yang, C. (2018). Cohesion in group therapy: A meta-analysis. *Psychotherapy, 55*(4), 384–398. https://doi.org/10.1037/pst0000173

Cantero-Sánchez, F. J., León-Rubio, J. M., Vázquez-Morejón, R., & León-Pérez, J. M. (2021). Evaluation of an assertiveness training based on the social learning theory for occupational health, safety and environment practitioners. *Sustainability, 13*(20), 11504. https://doi.org/10.3390/su132011504

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297–334. https://doi.org/10.1007/BF02310555

Di Consiglio, E., Gori, A., Morelli, S. A., Gazzillo, F., Schiavi, M. C., & Chirumbolo, A. (2023). ComunicaBene: An internet-guided imagery protocol to promote assertiveness—A pilot study. *Healthcare, 11*(13), 1874. https://doi.org/10.3390/healthcare11131874

ElBarazi, I., Ahmed, M. A., & Alnajjar, M. S. (2024). The impact of assertiveness training on anxiety, stress, and depression among university students: A randomized controlled trial. *Journal of Education and Health Promotion, 13*, 241. https://doi.org/10.4103/jehp.jehp_1038_23

Grande, A. J., de Moraes, A. C., Monteiro, L. C., & Keogh, F. (2023). Efficacy of school-based interventions for mental health problems in children and adolescents in low- and middle-income countries: A systematic review and meta-analysis. *Frontiers in Psychiatry, 13*, 1012257. https://doi.org/10.3389/fpsyt.2022.1012257

Hoag, M. J., & Burlingame, G. M. (1997). Evaluating the effectiveness of child and adolescent group treatment: A meta-analytic review. *Journal of Clinical Child Psychology, 26*(3), 234–246. https://doi.org/10.1207/s15374424jccp2603_2

Julious, S. A. (2005). Sample size of 12 per group rule of thumb for a pilot study. *Pharmaceutical Statistics, 4*(4), 287–291. https://doi.org/10.1002/pst.185

Kerby, D. S. (2014). The simple difference formula: An approach to teaching nonparametric correlation. *Journal of Statistics Education, 22*(2), 1–15. https://doi.org/10.1080/10691898.2014.11889698

Maher, J. M., Markey, J. C., & Ebert-May, D. (2013). The other half of the story: Effect size analysis in quantitative research. *CBE—Life Sciences Education, 12*(3), 345–351. https://doi.org/10.1187/cbe.13-04-0082

Noh, G.-O., Kim, Y., & Kim, S. S. (2021). Effects of an SBAR-based assertiveness program on nursing students' communication, practice stress, and clinical competency: A randomized controlled trial. *Nurse Education Today, 103*, 104958. https://doi.org/10.1016/j.nedt.2021.104958

Omura, M., Maguire, J., Levett-Jones, T., & Stone, T. E. (2018). The effectiveness of assertiveness training programmes for healthcare professionals and students: A systematic review. *International Journal of Nursing Studies, 79*, 111–121. https://doi.org/10.1016/j.ijnurstu.2017.12.011

Prout, H. T., & DeMartino, R. A. (1986). A meta-analysis of school-based studies of psychotherapy. *Journal of School Psychology, 24*(3), 285–292. https://doi.org/10.1016/0022-4405(86)90061-0

Prout, S. M., & Prout, H. T. (1998). A meta-analysis of school-based studies of counseling and psychotherapy: An update. *Journal of School Psychology, 36*(2), 121–136. https://doi.org/10.1016/S0022-4405(98)00007-7

Rubin, R. B., & Martin, M. M. (1994). Development of a measure of interpersonal communication competence. *Communication Research Reports, 11*(1), 33–44. https://doi.org/10.1080/08824099409359938

Rusu, O. R., Mureșan, V., David, D., & Holmes, E. A. (2022). Therapeutic factors of group psychotherapy: A critical review from an evidence-based perspective. *Frontiers in Veterinary Science, 9*, 1024355. https://doi.org/10.3389/fvets.2022.1024355

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika, 52*(3/4), 591–611. https://doi.org/10.1093/biomet/52.3-4.591

Shahraki-Sanavi, F., Ansari-Moghaddam, A., Mohammadi, M., Bakhshani, N.-M., & Salehiniya, H. (2020). Effectiveness of school-based mental health programs on mental health among adolescents. *Journal of Education and Health Promotion, 9*, 183. https://doi.org/10.4103/jehp.jehp_421_19

Speed, B. C., Goldstein, B. L., & Goldfried, M. R. (2018). Assertiveness training: A forgotten evidence-based treatment. *Clinical Psychology: Science and Practice, 25*(1), e12216. https://doi.org/10.1111/cpsp.12216

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin, 63*(6), 384–399. https://doi.org/10.1037/h0022100

van Tonder, J. I., Jordaan, J., & Esterhuyse, K. (2023). Self-esteem, interpersonal communication competence, and media and technology usage as predictors of loneliness among university students. *SAGE Open, 13*(1), 21582440221148379. https://doi.org/10.1177/21582440221148379

Wiemann, J. M. (1977). Explication and test of a model of communicative competence. *Human Communication Research, 3*(3), 195–213. https://doi.org/10.1111/j.1468-2958.1977.tb00518.x

Wilcoxon, F. (1945). Individual comparisons by ranking methods. *Biometrics Bulletin, 1*(6), 80–83. https://doi.org/10.2307/3001968

Whitehead, A. L., Julious, S. A., Cooper, C. L., & Campbell, M. J. (2016). Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Trials, 17*, 543. https://doi.org/10.1186/s13063-016-2068-0