

A Preliminary Evaluation of CBT-Based Group Counseling for Sexual Awareness Among Female Adolescents

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ABSTRACT: Sexual awareness is an important component of adolescent health education, particularly in institutional environments where discussions related to sexuality may be culturally sensitive. Islamic boarding schools represent a context in which preventive and culturally appropriate educational approaches are needed to support adolescents' understanding of personal boundaries and sexual safety. This study examined the preliminary effectiveness of Cognitive Behavioral Therapy (CBT)-based group counseling in improving sexual awareness among female adolescents in an Islamic boarding school setting. A quasi-experimental pretest-posttest control group design was used. Twenty-two female students aged 12–15 years were allocated into an intervention group and a control group. The intervention group participated in six structured CBT-based group counseling sessions focusing on cognitive restructuring, self-awareness, assertiveness, and behavioral reflection, while the control group received no intervention. Sexual awareness was measured using the Sexual Awareness Questionnaire before and after the intervention. Data were analyzed using an independent samples t-test. Results indicated a statistically significant difference between groups, with the intervention group demonstrating higher posttest sexual awareness scores compared with the control group, $t(20) = 3.158, p = .005$. These findings suggest that CBT-based group counseling may support improvements in sexual awareness among female adolescents in religious educational settings. Further research with larger samples and longer follow-up periods is recommended to strengthen evidence for effectiveness.

INTRODUCTION

Sexual awareness is an important component of adolescent health education, encompassing understanding of bodily autonomy, interpersonal boundaries, and recognition of situations associated with sexual risk or abuse (Snell et al., 1991; Furby et al., 1991). Developing sexual awareness is particularly important in institutional environments where adolescents live and learn collectively, such as Islamic boarding schools (*pondok pesantren*). However, discussions related to sexuality are often considered sensitive or taboo within such settings due to strong sociocultural and religious norms (Khasanah & Nabila, 2020). As a result, many female students may receive limited structured education regarding sexual safety and boundary recognition, potentially

increasing vulnerability to harmful experiences.

Reports of sexual misconduct within educational institutions, including religious boarding schools, have raised concerns regarding the need for preventive approaches that are culturally appropriate and educationally acceptable (UNICEF, 2022; BBC News Indonesia, 2023). Sexual abuse can have substantial long-term consequences, including psychological trauma, post-traumatic stress symptoms, and broader impacts on emotional and neurobiological functioning (Haskell & Randall, 2019; Ramadhani & Nurwati, 2023). Given their educational and moral role, Islamic boarding schools are strategically positioned to provide preventive education that supports students' wellbeing. Nevertheless, existing approaches often emphasize moral instruction without explicitly addressing cognitive and behavioral aspects of sexual awareness, leaving gaps in students' ability to recognize and respond to risky situations (Khasanah & Nabila, 2020).

Group counseling represents a potentially suitable approach for preventive education in adolescent populations because it allows participants to learn collectively, share perspectives, and develop supportive peer interactions within a structured environment (Corey, 2015; Syahniar et al., 2019). Cognitive Behavioral Therapy (CBT), in particular, offers a relevant framework because it focuses on identifying and restructuring maladaptive beliefs and behaviors (Beck, 2011; Corey, 2015). Within the context of sexual awareness, CBT-based interventions may help adolescents challenge inaccurate beliefs, improve cognitive appraisal of interpersonal situations, and develop adaptive coping and communication strategies (Hosseini et al., 2020). Techniques such as cognitive restructuring, role-play, and assertive communication training may support adolescents in recognizing warning signs and responding more effectively to potentially harmful situations (Kim & Park, 2017).

Previous studies have demonstrated the potential of CBT-based counseling in addressing sexuality-related outcomes across different populations. For example, CBT interventions have been shown to improve sexual knowledge, reduce maladaptive perceptions, and enhance psychological outcomes among adult women and university students (Bokaie et al., 2018; Hosseini et al., 2020). Group counseling approaches have also been associated with improvements in sexual awareness and related psychosocial outcomes in adolescent populations (Kim & Park, 2017; Syahniar et al., 2019).

Despite these findings, existing research has several limitations. First, most studies have been conducted in non-religious educational or clinical settings, with limited attention to culturally structured environments such as Islamic boarding schools. Second, interventions targeting sexual awareness have rarely been examined within contexts where social norms, authority relations, and cultural sensitivity strongly influence how sexuality is discussed and understood (Giddens, 1976; Nugraha & Subaidi, 2022). Third, there is limited experimental evidence examining whether cognitively oriented group counseling approaches can be adapted to support sexual awareness among adolescent girls in *pondok pesantren* settings. Therefore, the current literature highlights a clear gap regarding the application of CBT-based group counseling to enhance sexual awareness within religious educational institutions, particularly among female adolescents living in structured communal environments.

Current Study

The present study aims to examine the effectiveness of Cognitive Behavioral Therapy–based group counseling in improving sexual awareness among female students in an Islamic boarding school setting. Using a pretest–posttest control group experimental design, the study compares changes in sexual awareness between participants who received CBT-based group counseling and those who did not receive the intervention. This study contributes to the literature in three ways. First, it extends CBT-based preventive counseling into a culturally specific educational context that has received limited empirical attention. Second, it explores whether structured cognitive–

behavioral strategies can support adolescents' understanding of sexual boundaries and risk recognition within a collectivist and religious environment. Third, it provides preliminary empirical evidence to inform the development of culturally sensitive counseling programs aimed at strengthening sexual safety education for female adolescents in Islamic boarding schools.

METHODS

Study Design

This study employed a quasi-experimental pretest–posttest control group design to examine the preliminary effectiveness of a Cognitive Behavioral Therapy (CBT)–based group counseling intervention on sexual awareness among female adolescents. Two groups were included: an intervention group receiving CBT-based group counseling and a comparison control group that did not receive the intervention during the study period. A pretest–posttest structure was used to assess changes over time and to enable comparison between groups while accounting for baseline differences.

Participants and Recruitment

Participants were female students (*santri putri*) recruited from *Pondok Pesantren Roudhotu Tholibin*, Metro Utara, Indonesia. A total of 22 early adolescents aged 12–15 years participated in the study and were allocated into an intervention group and a control group with approximately equal group sizes. Inclusion criteria were: Female students classified as early adolescents (12–15 years), Willingness to participate in group counseling sessions, and Completion of informed consent procedures. Participants who met the inclusion criteria were assigned to groups using a random allocation procedure to reduce selection bias and enhance baseline comparability. Given the educational setting, full randomization at the institutional level was not feasible; therefore, the study is classified as quasi-experimental.

Intervention Procedure

The intervention consisted of a structured CBT–based group counseling program delivered across six sessions. Each session lasted approximately 40–60 minutes and was conducted twice per week over a three-week period. The intervention was designed to improve sexual awareness through cognitive restructuring, self-reflection, assertiveness training, and behavioral skill development within a group counseling format. The program followed core CBT principles, including identification of maladaptive beliefs, cognitive reframing, behavioral rehearsal, and relapse prevention strategies. Sessions were conducted in a structured sequence to facilitate progressive learning and skill development. A summary of session objectives and key activities is presented in Table 1.

Measures

Sexual awareness was assessed using the Sexual Awareness Questionnaire (SAQ; Snell et al., 1991), originally consisting of 36 self-report items measuring individuals' awareness and attitudes related to sexuality. The instrument was translated into Indonesian using a forward-translation procedure and reviewed by a language expert and a psychometrics expert to ensure linguistic clarity and content appropriateness.

A pilot test was conducted on 96 participants from a similar population. Item validity was evaluated using corrected item total correlation (cut-off ≥ 0.30). One item (item 36) did not meet the criterion and was removed, resulting in a final 35-item instrument. All items were rated on a 4-point Likert scale (strongly agree to strongly disagree), with reverse scoring applied to designated items. The scale demonstrated high internal consistency (Cronbach's $\alpha = 0.897$). The questionnaire was administered before the intervention to assess baseline sexual awareness and re-

administered after the intervention to measure changes in participants' knowledge, attitudes, and self-related perceptions.

Table 1. Summary of CBT-Based Group Counseling Sessions

Session	Focus	Objectives and Activities
1	Introduction and group formation	Establish group norms, introduce intervention goals, and provide an introduction to sexual awareness and self-understanding. Participants reflected on expectations and situations in which they felt limited awareness of themselves in sexual contexts.
2	Identification of negative thoughts and beliefs	Participants identified maladaptive thoughts or dysfunctional beliefs related to sexual awareness and explored associated emotional responses.
3	Cognitive restructuring	Participants practiced replacing negative or dysfunctional thoughts with healthier and more adaptive cognitions related to sexual awareness.
4	Assertiveness training	Focused on strengthening participants' ability to express needs and maintain personal boundaries through scenario-based practice and role-play.
5	Coping and maintenance strategies	Participants identified barriers to maintaining positive sexual awareness and developed practical strategies to address challenges.
6	Evaluation and relapse prevention	Review of key learning points, evaluation of personal change, and development of plans to maintain positive cognitive and behavioral strategies.

Data Analysis

Data analysis was conducted to evaluate group differences in sexual awareness following the intervention. All analyses were performed after examining statistical assumptions. Distributional assumptions were assessed using the Shapiro–Wilk test. Results indicated that scores in both groups were normally distributed ($p > .05$). Equality of variances between groups was evaluated using Levene's test, which indicated homogeneous variance ($p > .05$). Following confirmation of assumptions, an Independent Samples t-test was conducted to compare posttest sexual awareness scores between the intervention and control groups. This analysis was used to examine whether participants receiving CBT-based group counseling demonstrated higher levels of sexual awareness compared with those in the control condition.

Table 2. Participants' characteristics

Characteristic	Total (N = 22)	CBT Intervention (n = 11)	Control (n = 11)
Age, mean (SD)	13.91 (0.88)	13.82 (0.98)	13.91 (0.70)
Age range	12–15	12–15	12–15
Grade level, n (%)			
Grade 7	3 (13.6%)	3 (27.3%)	0 (0.0%)
Grade 8	8 (36.4%)	2 (18.2%)	6 (54.5%)
Grade 9	9 (40.9%)	5 (45.5%)	4 (36.4%)
Grade 10	2 (9.1%)	1 (9.1%)	1 (9.1%)

RESULTS

Prior to the main analysis, assumptions of normality and homogeneity of variance were examined using Shapiro–Wilk and Levene's tests. All assumptions for parametric analysis were met (all $p > .05$). An independent samples t-test was conducted to compare posttest sexual awareness scores between the CBT intervention group and the control group. Results showed, presented in Table 3) a statistically significant difference between groups, $t(20) = 3.158$, $p = .005$, indicating that participants in the CBT intervention group reported higher sexual awareness scores compared with the control group. The mean difference between groups was 9.82 points (95% CI [3.33, 16.30]).

Table 3. Descriptive Statistics and Group Comparison of Posttest Sexual Awareness Scores

Group	N	M	SD	SE	t	df	p	M Diff	95% CI
CBT Intervention	11	86.09	6.88	2.07	3.158	20	.005	9.82	[3.33, 16.30]
Control	11	76.27	7.68	2.32					

DISCUSSION

The present study examined the preliminary effectiveness of a CBT-based group counseling intervention in improving sexual awareness among female adolescents in an Islamic boarding school setting. The findings demonstrated that participants who received the CBT-based intervention reported significantly higher post-intervention sexual awareness scores compared with participants in the control group. These results suggest that structured group counseling grounded in cognitive-behavioral principles may support improvements in adolescents' understanding of sexual boundaries, self-awareness, and adaptive cognitive appraisal within culturally structured educational environments (Corey, 2015; Hosseini et al., 2020).

The observed improvement in sexual awareness may be understood in relation to the cognitive and behavioral mechanisms targeted throughout the intervention. Across six structured sessions, participants were guided through activities focused on self-recognition, identification of maladaptive beliefs, cognitive restructuring, assertiveness training, and relapse prevention strategies. These components are consistent with core CBT principles, which emphasize the relationship between cognition, emotional responses, and behavioral choices (Corey, 2015; Hosseini et al., 2020). By encouraging participants to recognize and replace negative or dysfunctional beliefs related to sexuality, the intervention likely supported more adaptive interpretations of interpersonal situations and strengthened participants' confidence in maintaining personal boundaries (Bokaie et al., 2018).

In particular, the inclusion of assertiveness training and scenario-based practice may have contributed to increased awareness of personal agency and boundary-setting. Adolescents in group settings often benefit from peer discussion and social modeling, which can normalize sensitive topics and reduce discomfort when discussing sexuality-related issues (Corey, 2015; Syahnar et al., 2019). The group format may therefore have amplified cognitive learning through shared reflection and collective problem-solving.

The present findings are consistent with previous studies suggesting that CBT-based interventions can improve sexuality-related knowledge, attitudes, and psychological outcomes in various populations. Prior research has shown that cognitive-behavioral approaches are effective in helping individuals challenge maladaptive beliefs and develop healthier cognitive frameworks related to sexual experiences and interpersonal relationships (Hosseini et al., 2020; Bokaie et al., 2018). The current study extends this body of evidence by demonstrating that CBT-based group counseling may also be feasible and beneficial within a religious educational context, where discussions about sexuality are often constrained by sociocultural norms (Khasanah & Nabila, 2020).

Importantly, this study contributes preliminary empirical evidence from an Islamic boarding school setting, a context that has received limited attention in intervention research. The findings suggest that cognitively oriented counseling approaches can be adapted to culturally sensitive environments while maintaining a focus on preventive education and personal wellbeing (UNICEF, 2022; Nugraha & Subaidi, 2022).

Implications

From a practical perspective, the results indicate that structured group counseling programs incorporating CBT principles may provide a feasible strategy for strengthening sexual awareness

among female adolescents in boarding school environments. The intervention's emphasis on self-recognition, cognitive reframing, and assertive communication aligns with preventive education goals by equipping adolescents with cognitive and interpersonal tools to recognize potentially risky situations and respond more effectively. Given the collective nature of boarding school life, group-based approaches may be particularly appropriate because they allow participants to learn within a supportive peer environment while respecting shared institutional values.

Limitations and Future Directions

Several limitations should be considered when interpreting these findings. First, the study involved a relatively small sample size, which may limit the generalizability of results and increase uncertainty regarding the magnitude of the observed effect. Second, sexual awareness was assessed using self-report measures, which may be influenced by social desirability or response expectations following participation in counseling sessions. Third, the analysis focused on short-term outcomes immediately following the intervention; therefore, the durability of changes over time remains unknown. Additionally, although participants were allocated into groups, the quasi-experimental design and small sample size limit causal certainty, and future studies using larger randomized designs are needed to confirm these findings.

Future research should examine the long-term sustainability of intervention effects and explore whether improvements in sexual awareness translate into observable behavioral outcomes. Studies involving larger and more diverse samples across different boarding school settings would help clarify the generalizability of findings. Further investigation into culturally sensitive adaptations of CBT-based counseling may also strengthen the development of preventive educational programs that are both contextually appropriate and psychologically effective.

CONCLUSION

This study provides preliminary evidence that CBT-based group counseling may improve sexual awareness among female adolescents in an Islamic boarding school context. By targeting cognitive beliefs, assertiveness, and self-reflection within a structured group environment, the intervention appears to support adolescents' understanding of personal boundaries and sexual safety. While further research with larger samples is needed, the findings suggest that cognitively oriented group counseling represents a promising direction for culturally sensitive preventive education in religious educational settings.

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