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Effect of Hope-Focused Psychotherapy on Psychological Distress among Pregnant Teenagers in the Ibadan Metropolis: The Moderating Role of Health Self-Efficacy

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Abstract

This study examined the effectiveness of Hope-Focused Psychotherapy on psychological distress among pregnant teenagers in the Ibadan metropolis and the moderating role of health self-efficacy. Psychological distress, comprising depression, anxiety, stress, and hopelessness, is highly prevalent among pregnant adolescents due to developmental, social, and economic challenges. A quasi-experimental pretest–posttest control group design was adopted. A total of 59 pregnant teenagers aged 13–19 years were selected through multistage sampling. Participants were assigned to treatment and control groups, while health self-efficacy was classified as high and low. The Kessler Psychological Distress Scale (K10) and Health Self-Efficacy Scale were used for data collection. Data were analysed using ANCOVA at 0.05 level of significance. Results revealed that Hope-Focused Psychotherapy significantly reduced psychological distress among participants, $F_{(2,38)} = 50.422$, $p < .05$, $\eta^2 = .726$, indicating a large effect size. Health self-efficacy had no significant main effect on psychological distress, $F_{(1,38)} = 0.025$, $p = .874$, $\eta^2 = .001$. Similarly, no significant interaction effect was found between treatment and health self-efficacy, $F_{(2,38)} = 0.586$, $p = .562$, $\eta^2 = .030$. The findings suggest that Hope-Focused Psychotherapy is highly effective in reducing psychological distress among pregnant teenagers irrespective of their level of health self-efficacy. The study concludes that structured hope-based interventions can substantially improve emotional well-being in this population. It is recommended that Hope-Focused Psychotherapy be integrated into antenatal care services for adolescents and that healthcare providers be trained in its application.

Keywords: Psychological distress, Hope-Focused Psychotherapy, health self-efficacy, pregnant teenagers

Introduction

Psychological distress during pregnancy has emerged as a major public health concern globally, particularly among adolescents who experience pregnancy during a developmental period characterised by substantial biological, psychological, and social transitions. Psychological distress refers to a range of emotional and mental health difficulties, including depression, anxiety, stress, low self-esteem, hopelessness, and suicidal ideation. Recent evidence indicates that pregnant teenagers are disproportionately affected by these conditions compared to adult pregnant women. Studies conducted across diverse settings have shown that between one-fifth and two-fifths of pregnant adolescents experience significant depressive symptoms, while considerable proportions also report anxiety, high perceived stress, and diminished self-worth (Lesinskienė *et al.*, 2025; Mwita *et al.*, 2025; Muthelo *et al.*, 2024). The heightened vulnerability of pregnant adolescents stems from the simultaneous demands of navigating adolescence and preparing for motherhood, both of which require considerable emotional adjustment. Consequently, psychological distress among pregnant teenagers has become an issue of increasing concern for researchers, healthcare professionals, and policymakers seeking to improve maternal and child health outcomes.

The burden of psychological distress among pregnant adolescents is particularly pronounced in low- and middle-income countries where socioeconomic disadvantage, limited access to mental healthcare, and societal stigma frequently exacerbate mental health challenges. Research consistently identifies social rejection, family disappointment, partner abandonment, educational disruption, poverty, and exposure to violence as major predictors of emotional distress among pregnant adolescents (Hernández-Chávez *et al.*, 2026; Mabila *et al.*, 2023; Mutahi *et al.*, 2022; Roberts *et al.*, 2021). These experiences often result in feelings of shame, isolation, uncertainty, and helplessness, thereby increasing the likelihood of depression and anxiety. Beyond the immediate psychological consequences, distress during adolescent pregnancy has been associated with impaired emotional regulation, parenting difficulties, increased vulnerability to future psychiatric disorders, and adverse developmental outcomes among offspring (Lima *et al.*,

2025; Tung *et al.*, 2023). Within the Nigerian context, particularly in the Ibadan metropolis where adolescent pregnancy remains a significant reproductive health challenge, many pregnant teenagers encounter educational discontinuity, financial hardship, social stigma, and inadequate psychosocial support. Such circumstances may heighten their susceptibility to psychological distress, underscoring the need for effective psychological interventions tailored to their unique developmental and reproductive health needs.

Hope-Focused Psychotherapy has gained increasing attention as a strengths-based therapeutic approach designed to enhance individuals' capacity to set meaningful goals, identify pathways towards achieving those goals, and develop the motivation required to overcome obstacles. Rooted in Snyder's Hope Theory, the intervention seeks to foster positive future orientation, resilience, agency, and adaptive coping. Although empirical investigations involving pregnant teenagers remain scarce, emerging evidence from related populations demonstrates its effectiveness in improving psychological well-being and reducing stress. For instance, hope-based counselling significantly enhanced psychological well-being and quality of life among women facing reproductive challenges, while group-based hope interventions have been shown to increase hopefulness, coping skills, self-acceptance, and reduce depressive symptoms among adolescents (Lin *et al.*, 2024; Piri *et al.*, 2025). Given that pregnant teenagers frequently struggle with uncertainty regarding their future, disrupted educational aspirations, and social rejection, Hope-Focused Psychotherapy may provide a valuable framework for helping them develop optimism, emotional resilience, and healthier coping mechanisms capable of reducing psychological distress.

An important factor that may influence the effectiveness of psychological interventions among pregnant adolescents is health self-efficacy. Health self-efficacy refers to an individual's confidence in their ability to successfully manage health-related challenges, engage in health-promoting behaviours, and cope effectively with illness or stressful health conditions. Existing literature suggests that higher levels of self-efficacy are associated with better coping abilities, improved psychological well-being, and lower levels of anxiety and depression during pregnancy (Afrashteh, 2021; Mo *et al.*, 2021; Kułak-Bejda *et al.*, 2024). Of particular relevance is the study conducted among pregnant teenage girls in Ibadan, which found that self-efficacy significantly contributed to better coping abilities among participants (Balogun *et al.*, 2018). This suggests

that pregnant adolescents who possess stronger beliefs in their ability to manage pregnancy-related demands may be better positioned to benefit from psychological interventions and experience lower levels of distress. Consequently, health self-efficacy may function as an important moderating variable in understanding variations in therapeutic outcomes among pregnant teenagers.

Despite growing evidence documenting the prevalence and consequences of psychological distress among pregnant adolescents, substantial gaps remain in the literature. Most existing studies have concentrated on identifying risk factors, prevalence rates, and support needs, with relatively limited attention devoted to developing and evaluating culturally appropriate psychological interventions specifically targeted at pregnant teenagers (Mutahi *et al.*, 2022; Lesinskienė *et al.*, 2025). Furthermore, although psychosocial interventions such as interpersonal psychotherapy and cognitive-behavioural approaches have demonstrated some effectiveness, empirical investigations examining the application of Hope-Focused Psychotherapy among pregnant adolescents remain largely absent. Similarly, limited research has explored how individual protective factors such as health self-efficacy may influence intervention outcomes, particularly within Nigerian settings. Given the psychosocial realities confronting pregnant teenagers in the Ibadan metropolis, there is a need to investigate innovative intervention strategies capable of reducing psychological distress while also examining the role of health self-efficacy in shaping treatment effectiveness. Therefore, this study seeks to examine the effectiveness of Hope-Focused Psychotherapy in reducing psychological distress among pregnant teenagers in the Ibadan metropolis, while determining the moderating influence of health self-efficacy on treatment outcomes.

Purpose of the Study

The study examined the effectiveness of Hope-Focused Psychotherapy in reducing psychological distress among pregnant teenagers in the Ibadan metropolis. Specifically, the study:

1. Investigated the main effect of Hope-Focused Psychotherapy on the psychological distress of pregnant teenagers in the Ibadan metropolis.
2. Evaluated the influence of health self-efficacy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

3. Assessed the interaction effect of Hope-Focused Psychotherapy and health self-efficacy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

H_{01}: There is no significant main effect of Hope-Focused Psychotherapy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

H_{02}: There is no significant main effect of health self-efficacy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

H_{03}: There is no significant interaction effect of Hope-Focused Psychotherapy and health self-efficacy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

Literature Review

Prevalence and Nature of Psychological Distress among Pregnant Teenagers

Psychological distress is a multidimensional construct encompassing emotional suffering characterised by symptoms of depression, anxiety, stress, hopelessness, low self-esteem, and other negative psychological states that impair an individual's functioning and well-being. Among pregnant teenagers, psychological distress has become a growing public health concern because adolescence itself is a developmental stage marked by significant emotional and social transitions. When pregnancy occurs during this period, young women are often confronted with additional stressors that increase their vulnerability to psychological difficulties. Recent studies have consistently reported high rates of mental health problems among pregnant adolescents across different regions of the world. Lesinskienė *et al.* (2025) observed that adolescent pregnancy is frequently associated with depression, anxiety, emotional instability, and psychosocial challenges that require specialised mental health support. Similarly, Mwita *et al.* (2025) found that substantial proportions of pregnant adolescents attending antenatal clinics reported depressive and anxiety symptoms, while Hernández-Chávez *et al.* (2026) identified high

levels of perceived stress, low self-esteem, and emotional distress among pregnant adolescents. These findings suggest that psychological distress is a common experience among pregnant teenagers and represents a significant threat to their mental health and overall quality of life.

Determinants and Consequences of Psychological Distress among Pregnant Teenagers

The occurrence of psychological distress among pregnant teenagers has been linked to numerous psychosocial and environmental factors. Research indicates that stigma, family rejection, social isolation, partner abandonment, educational disruption, financial hardship, and exposure to violence contribute significantly to emotional distress during adolescent pregnancy (Mabila *et al.*, 2023; Mutahi *et al.*, 2022; Roberts *et al.*, 2021). Muthelo *et al.* (2024) reported that many pregnant adolescents experience feelings of loneliness, shame, hopelessness, and uncertainty regarding their future, which often exacerbate symptoms of depression and anxiety. Furthermore, Lima *et al.* (2025) noted that psychological distress during adolescent pregnancy may have long-term consequences, including impaired emotional regulation, increased risk of mental disorders, and difficulties in maternal adjustment. Beyond the mothers themselves, prenatal psychological distress has also been associated with adverse developmental outcomes among children, including emotional and behavioural difficulties later in life (Tung *et al.*, 2023). Despite the growing evidence regarding the prevalence and consequences of psychological distress among pregnant teenagers, studies continue to report substantial gaps in mental health service provision, with many affected adolescents unable to access appropriate psychological care and support (Lesinskienė *et al.*, 2025; Wittenberg *et al.*, 2025). These findings underscore the necessity for effective psychological interventions aimed at reducing distress and promoting psychological well-being among pregnant teenagers.

Theoretical Framework: Perceptual Control Theory

This study is anchored on Perceptual Control Theory (PCT), developed by William T. Powers (1973). The theory posits that human behaviour is driven by the continuous effort to maintain congruence between desired internal standards (reference values) and perceived realities. According to PCT, psychological distress occurs when individuals perceive a discrepancy between their goals, expectations, or desired life circumstances and their actual experiences,

particularly when they feel unable to reduce this discrepancy. In the context of pregnant teenagers, unexpected pregnancy often disrupts personal aspirations, educational goals, social relationships, and future expectations, creating a conflict between desired and perceived realities that may result in anxiety, depression, stress, and other forms of psychological distress. Hope-Focused Psychotherapy is relevant to this framework because it assists individuals in redefining realistic goals, identifying pathways towards achieving them, and strengthening their sense of agency, thereby reducing the gap between desired outcomes and current circumstances. Furthermore, health self-efficacy may influence how effectively pregnant teenagers perceive themselves as capable of managing pregnancy-related challenges and regaining control over their lives. Therefore, Perceptual Control Theory provides a useful explanation for how Hope-Focused Psychotherapy may reduce psychological distress among pregnant teenagers in the Ibadan metropolis and how health self-efficacy may moderate this therapeutic process.

Methods

The study adopted a quasi-experimental pretest-posttest control group design. The treatment variable consisted of Hope-Focused Psychotherapy and a control condition, while health self-efficacy served as the moderating variable at two levels (high and low). The population comprised pregnant teenagers experiencing psychological distress within the Ibadan metropolis, Oyo State, Nigeria. A multistage sampling procedure was employed to select participants from primary healthcare centres across selected local government areas in Ibadan. The Kessler Psychological Distress Scale (K10) was used to measure psychological distress, while the Health Self-Efficacy Scale (HSES) assessed participants' levels of health self-efficacy. Pregnant teenagers aged 13–19 years who exhibited significant psychological distress and met the inclusion criteria were selected to participate in the study.

Data collection was conducted in four phases: screening, pre-test, treatment, and post-test. Eligible participants were screened using the Kessler Psychological Distress Scale and assigned to either the Hope-Focused Psychotherapy group or the control group. Participants in the treatment group received eight sessions of Hope-Focused Psychotherapy, each lasting approximately sixty minutes, while those in the control group participated in non-therapeutic activities. At the completion of the intervention, post-test measures were administered to assess changes in psychological distress. Data obtained were analysed using descriptive statistics and

Analysis of Covariance (ANCOVA) at the 0.05 level of significance to determine the main effect of treatment, the moderating effect of health self-efficacy, and the interaction effect of treatment and health self-efficacy on psychological distress among pregnant teenagers in the Ibadan metropolis.

Results

Hypothesis One

H_{01}: There is no significant main effect of Hope-Focused Psychotherapy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

Table 1: Summary of ANCOVA Showing the Main Effect of Treatment on Psychological Distress among Pregnant Teenagers

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Treatment	109276	2	547.138	50.422	.000*	.726
Error	412.347	38	10.851			

Significant at $p \leq .05$

Table 1 shows the main effect of treatment on the psychological distress of pregnant teenagers. The result revealed a significant main effect of treatment on psychological distress, $F_{(2,38)} = 50.422$, $p < .05$, $\eta^2 = .726$. Since the probability value of .000 is less than the stipulated alpha level of .05, the null hypothesis was rejected. This finding indicates that the treatment conditions significantly influenced the psychological distress scores of the participants. The partial eta squared value of .726 further suggests a large effect size, implying that approximately 72.6% of the variance in post-test psychological distress scores was accounted for by treatment.

Hypothesis Two

H_{02}: There is no significant main effect of health self-efficacy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

Table 2: Summary of ANCOVA Showing the Main Effect of Health Self-Efficacy on Psychological Distress among Pregnant Teenagers

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Health Self-	.276	1	.276	.025	.874	.001

efficacy						
Error	412.347	38	10.851			

Significant at p ≤ .05

Table 2 presents the main effect of health self-efficacy on the psychological distress of pregnant teenagers. The result showed that health self-efficacy did not significantly influence psychological distress, $F_{(1,38)} = 0.025$, $p > .05$, $\eta^2 = .001$. The obtained significance value of .874 exceeded the .05 level of significance; therefore, the null hypothesis was retained. This result implies that participants with varying levels of health self-efficacy did not differ significantly in their psychological distress scores. The effect size was negligible, as health self-efficacy explained only 0.1% of the variance in psychological distress.

Hypothesis Three

H_{03}: There is no significant interaction effect of Hope-Focused Psychotherapy and health self-efficacy on the psychological distress of pregnant teenagers in the Ibadan metropolis.

Table 3: Summary of ANCOVA Showing the Interaction Effect of Treatment and Health Self-Efficacy on Psychological Distress among Pregnant Teenagers

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Treatment × Health Self-efficacy	12.708	2	6.354	.586	.562	.030
Error	412.347	38	10.851			

Significant at p ≤ .05

Table 3 shows the interaction effect of treatment and health self-efficacy on the psychological distress of pregnant teenagers. The result indicated that there was no significant interaction effect between treatment and health self-efficacy on psychological distress, $F_{(2,38)} = 0.586$, $p > .05$, $\eta^2 = .030$. Since the probability value of .562 is greater than the .05 level of significance, the null hypothesis was retained. This finding suggests that the effectiveness of the treatment in reducing psychological distress did not significantly differ according to participants' levels of health self-efficacy. The interaction effect accounted for only 3.0% of the variance in psychological distress scores, indicating a relatively small influence.

Discussion

The finding that Hope-Focused Psychotherapy significantly reduced psychological distress among pregnant teenagers suggests that structured psychological intervention can effectively alleviate emotional burden in this population. This outcome can be explained by the fact that hope-based therapeutic processes enhance goal orientation, cognitive reframing, and perceived agency, which are critical in counteracting the uncertainty, stigma, and fear commonly associated with adolescent pregnancy. Given the high prevalence of depression, anxiety, and stress among pregnant adolescents (often affecting up to one-third or more of cases), interventions that restore optimism and future orientation are likely to produce substantial emotional relief. Within the framework of Perceptual Control Theory (Powers, 1973), psychological distress arises when there is a persistent discrepancy between an individual's desired reference conditions (such as educational success, social acceptance, or future aspirations) and their perceived current reality. Hope-Focused Psychotherapy reduces this discrepancy by helping individuals redefine attainable goals, strengthen pathways thinking, and restore a sense of control over life outcomes, thereby reducing internal conflict and emotional distress. This finding aligns with evidence showing that psychosocial interventions significantly improve mental health outcomes among pregnant adolescents and parenting adolescents (Laurenzi *et al.*, 2020; Huo *et al.*, 2026), as well as studies demonstrating that hope-based counselling improves psychological well-being, reduces stress, and enhances coping in reproductive and adolescent populations (Piri *et al.*, 2025; Ermiati *et al.*, 2026).

The result showing that health self-efficacy did not significantly influence psychological distress indicates that personal belief in one's ability to manage health behaviours alone may not be sufficient to reduce emotional suffering among pregnant teenagers. This may be due to the overwhelming impact of contextual stressors such as stigma, family rejection, financial hardship, and social isolation, which are widely documented as dominant predictors of distress in adolescent pregnancy. From a Perceptual Control Theory perspective, these persistent environmental stressors maintain a chronic mismatch between desired states (e.g., acceptance, stability, continued education) and actual lived conditions, thereby sustaining psychological distress regardless of individual self-efficacy beliefs. With high baseline levels of depression, anxiety, and stress reported in pregnant adolescents globally, internal control beliefs may be insufficient to resolve externally driven goal discrepancies. This finding is supported by studies showing that psychological distress in pregnant adolescents is more strongly linked to stigma,

socioeconomic hardship, and lack of support than to individual coping beliefs (Lesinskienė *et al.*, 2025; Mwita *et al.*, 2025), as well as research indicating that self-efficacy alone has limited predictive power in adolescent pregnancy contexts compared to broader psychosocial stressors (Muthelo *et al.*, 2024; Kułak-Bejda *et al.*, 2024).

The finding that there was no significant interaction effect between Hope-Focused Psychotherapy and health self-efficacy suggests that the effectiveness of the intervention was uniform across different levels of self-efficacy. This implies that Hope-Focused Psychotherapy operated as a strong independent therapeutic mechanism that directly reduced psychological distress regardless of participants' perceived ability to manage their health. From the perspective of Perceptual Control Theory, the intervention likely reduced distress by directly altering reference values and improving perceived pathways toward goal attainment, thereby reducing the discrepancy between desired and perceived states across participants. Because this mechanism targets core cognitive-emotional control systems (such as goal restructuring and meaning reconstruction), it may operate effectively regardless of baseline self-efficacy levels. Considering the consistently high prevalence of psychological distress in this population, the therapeutic effect may have been sufficiently strong to override moderating influences. This is consistent with evidence that psychosocial interventions in pregnant adolescents produce generally stable effects across individual differences in psychological traits (Laurenzi *et al.*, 2020; Mehta *et al.*, 2026), and with studies showing that hope-based and cognitive-behavioural interventions improve mental health outcomes in reproductive populations regardless of baseline coping capacity or self-efficacy levels (Huo *et al.*, 2026; Lin *et al.*, 2024).

Conclusion

The study concluded that Hope-Focused Psychotherapy is highly effective in reducing psychological distress among pregnant teenagers in the Ibadan metropolis, while health self-efficacy alone does not significantly influence distress levels. The intervention demonstrated a strong therapeutic impact, suggesting that structured psychological support that enhances hope, goal orientation, and positive future expectations can meaningfully improve emotional well-being in this vulnerable population. However, the absence of both a significant effect of health self-efficacy and a significant interaction effect indicates that individual beliefs about health management may be insufficient to buffer distress in the presence of overwhelming social,

economic, and developmental stressors associated with adolescent pregnancy. Overall, the findings underscore the central role of structured psychosocial interventions in addressing mental health challenges among pregnant adolescents, rather than relying solely on individual cognitive resources.

Recommendations

The following recommendations were made based on the outcome of the study:

1. **Integration of Hope-Focused Psychotherapy into Antenatal Care Services**: Healthcare providers and policymakers should incorporate Hope-Focused Psychotherapy into routine antenatal care for pregnant teenagers, particularly in public health facilities within the Ibadan metropolis. This will ensure early psychological intervention to reduce distress and improve emotional adjustment during pregnancy.
2. **Training of Health Workers in Adolescent-Friendly Psychosocial Interventions**: Midwives, nurses, and community health workers should be trained in delivering structured hope-based and other brief psychosocial interventions. This will strengthen the capacity of healthcare systems to respond to the psychological needs of pregnant adolescents beyond physical health care.
3. **Strengthening Social Support Systems for Pregnant Teenagers**: Families, schools, and community structures should be engaged to provide emotional, informational, and social support to pregnant adolescents. Given the limited effect of self-efficacy observed, strengthening external support systems is essential to reducing stigma, isolation, and emotional distress.
4. **Development of Comprehensive School and Community Mental Health Programs**: Government and educational authorities should establish targeted mental health programs within schools and communities that focus on early identification, counselling, and continuous psychosocial support for pregnant adolescents. Such programs should combine hope-building strategies with broader social welfare support to address the multifaceted nature of distress.

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