

PESANTREN CLIMATE MEDIATES SELF-CONCEPT AND SOCIAL SUPPORT IN THE WELL-BEING OF SANTRI

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Abstract

This study aimed to analyze the mediating role of pesantren climate in the relationship between self-concept and social support and the subjective well-being (SWB) of Qur'an-memorizing santri. A quantitative approach with a correlational survey design was employed at Bina Madani Islamic Boarding School in Magelang, Indonesia. The accessible population consisted of 198 female students in Grades 10–12, of whom 143 were selected as the main sample using purposive sampling based on predetermined inclusion criteria. Data were collected using five-point Likert scales measuring social support, self-concept, pesantren climate, and SWB. The instruments were tested in a pilot study involving 30 santri and demonstrated adequate to very high reliability (Cronbach's $\alpha = 0.769\text{--}0.935$). Data were analyzed using Pearson correlation and mediation analysis with PROCESS Macro Model 4 and 5,000 bias-corrected bootstrap samples. The findings showed that pesantren climate was strongly correlated with SWB ($r = 0.811, p < 0.001$) and had a positive effect on SWB ($B = 0.808, p < 0.001$). Social support had a significant indirect effect on SWB through pesantren climate (effect = 0.155, 95% CI [0.072, 0.251]), whereas its direct effect was not significant. Self-concept demonstrated significant direct and indirect effects through pesantren climate (effect = 0.197, 95% CI [0.064, 0.345]), indicating partial mediation. These findings highlight the importance of strengthening pesantren climate as a contextual mechanism for promoting the subjective well-being of Qur'an-memorizing santri.

Keywords: self-concept, social support, pesantren climate, subjective well-being, Qur'an-memorizing santri, mediation.

Abstrak

Penelitian ini bertujuan menganalisis peran mediasi iklim pesantren dalam hubungan antara konsep diri dan dukungan sosial terhadap subjective well-being (SWB) santri penghafal Al-Qur'an. Penelitian menggunakan pendekatan kuantitatif dengan desain survei korelasional yang dilaksanakan di Pesantren Bina Madani Magelang. Populasi terjangkau terdiri atas 198 santri perempuan kelas X–XII, dengan 143 santri dipilih sebagai sampel berdasarkan kriteria purposive sampling. Data dikumpulkan menggunakan skala Likert lima poin yang mengukur dukungan sosial, konsep diri, iklim pesantren, dan SWB. Instrumen telah melalui pilot study terhadap 30 santri dan menunjukkan reliabilitas yang memadai hingga sangat tinggi (Cronbach's $\alpha = 0,769\text{--}0,935$). Data dianalisis menggunakan korelasi Pearson dan mediation analysis melalui PROCESS Macro Model 4 dengan 5.000 sampel bias-corrected bootstrapping. Hasil penelitian menunjukkan bahwa iklim pesantren berkorelasi sangat kuat dengan SWB (r

= 0,811; $p < 0,001$) dan berpengaruh positif terhadap SWB ($B = 0,808$; $p < 0,001$). Dukungan sosial memiliki efek tidak langsung signifikan terhadap SWB melalui iklim pesantren (effect = 0,155; 95% CI [0,072, 0,251]), tetapi efek langsungnya tidak signifikan. Konsep diri memiliki efek langsung dan tidak langsung yang signifikan melalui iklim pesantren (effect = 0,197; 95% CI [0,064, 0,345]), menunjukkan mediasi parsial. Temuan menegaskan pentingnya penguatan iklim pesantren sebagai mekanisme kontekstual dalam meningkatkan kesejahteraan subjektif santri.

Kata kunci: konsep diri, dukungan sosial, iklim pesantren, subjective well-being, santri penghafal Al-Qur'an, mediasi.

INTRODUCTION

Adolescence is a developmental period characterized by substantial biological, cognitive, emotional, and social reorganization. During this transition, young people are required to negotiate multiple developmental demands, including academic achievement, identity formation, peer relationships, family expectations, and increasing autonomy. These demands make adolescent well-being particularly sensitive to the interaction between individual resources and the social environments in which development occurs. Contemporary research consequently treats *subjective well-being* (SWB) not merely as the absence of psychological problems but as a multidimensional indicator of how young people evaluate and experience their lives. Longitudinal and population-based studies have shown that adolescent SWB is associated with both individual characteristics and contextual conditions, including health, social relationships, school experiences, and perceived support (Matić & Musil, 2023; Wu & Becker, 2023).

Within positive psychology, SWB generally encompasses cognitive evaluations of life satisfaction and affective experiences characterized by the relative presence of positive and negative emotions. This conceptualization is particularly relevant during adolescence because subjective evaluations of life may fluctuate as young people negotiate changing identities and increasingly complex social environments. Recent evidence suggests that SWB is shaped by multiple interacting resources rather than by a single psychological determinant. For example, a systematic review and meta-analysis demonstrated a robust association between emotional intelligence and adolescent SWB, while longitudinal research has shown that adolescents' subjective well-being develops in relation to school and interpersonal contexts (Llamas-Díaz et al., 2022; Wu & Becker, 2023). Thus, understanding adolescent SWB requires an integrated framework that considers personal characteristics, social resources, and the environments in which adolescents spend substantial amounts of their daily lives.

One particularly important personal resource is self-concept. Self-concept refers to the way individuals organize, interpret, and evaluate information about themselves. In adolescence, the development of a coherent self-concept is particularly consequential because this period involves intensified processes of identity exploration and social comparison. Recent longitudinal evidence provides stronger support for the relationship between self-concept and SWB than is possible from cross-sectional associations alone. Xiang et al. (2023), for example, examined adolescents across three measurement waves and found evidence of a dynamic relationship between self-concept clarity and subjective

well-being. Their findings suggest that adolescents with clearer representations of themselves tend to experience more adaptive cognitive and emotional evaluations of their lives, although the relationship is not necessarily unidirectional.

This relationship has received further support from more recent longitudinal research. Xiang et al. (2024) examined 2,001 Chinese adolescents and found that self-concept clarity was longitudinally associated with subjective well-being, with hope functioning as an important psychological mechanism. The study is particularly relevant because it moves beyond simple cross-sectional correlations and demonstrates that the relationship between self-concept clarity and well-being needs to be understood as a developmental process. Similarly, Li et al. (2025), using longitudinal data from early adolescents, found that self-concept was associated with subjective well-being through mechanisms involving gratitude and prosocial behavior. These findings suggest that a positive and coherent self-concept may influence SWB not only directly but also by shaping how adolescents interpret experiences and engage with others.

The significance of self-concept becomes even more apparent when adolescents face demanding educational environments. A positive self-concept can provide a psychological framework through which academic difficulties, interpersonal challenges, and performance expectations are interpreted as manageable experiences rather than threats to personal worth. Recent evidence on school maladjustment indicates that self-concept, social support, and resilience jointly function as protective resources during adolescence. Azpiazu et al. (2025) demonstrated that these resources are associated with reduced school maladjustment, which is important because maladjustment is closely connected to emotional and academic distress. Accordingly, self-concept should not be regarded simply as an individual perception but as a psychological resource that may shape adolescents' capacity to engage constructively with their educational environments.

Alongside personal resources, social support represents a second major determinant of adolescent well-being. Social support encompasses perceived availability of emotional, instrumental, informational, and relational assistance from significant others. Adolescents commonly obtain support from parents, peers, teachers, and other adults within their social environments. Large-scale evidence indicates that parental and peer support are among the most salient predictors of adolescent subjective well-being, demonstrating that adolescents' perceptions of interpersonal connectedness are central to their quality of life (Zhang et al., 2022). Similarly, a systematic review of friendship quality found that companionship, trust, intimacy, and supportive peer relationships are consistently associated with adolescent subjective well-being (Alsarrani et al., 2022).

The influence of social support on SWB also appears to operate through multiple psychological pathways. Xu et al. (2022), for example, demonstrated that perceived social support was an important mediator in the relationship between positive personality characteristics and subjective well-being, alongside meaning in life. Likewise, structural equation modeling evidence has shown that social support can be connected to subjective well-being through health-promoting behaviors and quality-of-life processes (Mo et al., 2022). More recent evidence continues to support the importance of social support. A

2024 meta-analysis synthesized 40 independent samples involving 27,740 participants and confirmed a positive association between social support and subjective well-being, indicating that the relationship is sufficiently consistent to warrant consideration as a central psychosocial resource (Cheng, 2024).

Importantly, social support may be especially consequential when adolescents experience intense educational and interpersonal demands. Recent research among adolescents has shown that social support, self-concept, and resilience jointly protect against school maladjustment, suggesting that personal and relational resources operate in combination rather than isolation (Azpiazu et al., 2025). A 2025 mixed-methods investigation similarly emphasizes the contribution of support from family, friends, teachers, and other significant adults to adolescent mental well-being (Budler, 2025). These findings reinforce the proposition that adolescent well-being is partly constructed through the quality of social relationships embedded in everyday educational settings.

The importance of the educational environment introduces a third dimension into the proposed model: educational climate. School climate encompasses students' perceptions of interpersonal relationships, safety, norms, teaching and learning processes, participation, and organizational conditions. Contemporary research increasingly conceptualizes school climate as a contextual determinant of students' social and emotional development rather than merely an institutional characteristic. Bosacki et al. (2023), in their critical review of secondary school climate, emphasized that the social and emotional quality of the school environment is closely connected to adolescents' emotional well-being. Similarly, Klik et al. (2023) demonstrated longitudinal relationships between school climate, school identification, and student well-being, suggesting that the psychological meaning students attach to their educational environment constitutes an important pathway through which contextual conditions influence individual functioning.

Longitudinal evidence further demonstrates that the relationship between educational context and adolescent well-being is developmental rather than static. Wu and Becker (2023) found that school contexts were associated with the development of both life satisfaction and school satisfaction across adolescence, highlighting the importance of contextual experiences during educational transitions. Recent bibliometric evidence also indicates growing scholarly interest in the intersection between school climate and student well-being, confirming that the two constructs have become an increasingly important research domain in contemporary educational psychology (Obeidat & Haimed, 2024).

The present study extends this school-climate perspective to the context of Islamic boarding education or pesantren. Unlike conventional day schools, pesantren constitute a comprehensive educational environment in which students learn, worship, socialize, rest, and participate in institutional routines within a relatively integrated residential system. Consequently, the educational environment is not confined to classroom interactions. For santri, particularly those engaged in Qur'anic memorization, everyday life may involve academic learning, religious instruction, *setoran* of memorization, *murojaah*, communal

worship, peer interaction, and structured disciplinary routines. This distinctive arrangement means that the quality of the pesantren environment may have a more pervasive relationship with students' psychological experiences than would normally be expected in conventional school settings.

For this reason, the construct of pesantren climate is proposed in this study as an adaptation of the school-climate concept to an Islamic residential educational context. Pesantren climate refers to santri's perceptions of the relational, educational, religious, disciplinary, and psychosocial characteristics of the environment in which they live and learn. It includes perceived relationships with *ustaz*, *ustazah*, *musyrif*, *kyai* or pesantren leaders, and peers; the quality of instructional interactions; religious atmosphere; fairness and consistency of disciplinary practices; psychological safety; and the overall sense of belonging within the pesantren community. This conceptual adaptation is important because simply transferring conventional school-climate measures to pesantren may overlook the distinctive residential and religious dimensions of santri life.

The potential mediating role of pesantren climate follows from the assumption that personal and social resources do not necessarily influence SWB independently of environmental interpretation. A student with a positive self-concept may be more capable of interpreting institutional demands constructively, while a student who receives strong social support may perceive teachers, peers, and institutional routines as more supportive and psychologically safe. These perceptions may subsequently influence the student's overall evaluation of life. In other words, self-concept and social support may shape how santri experience their environment, while perceptions of that environment may subsequently contribute to subjective well-being. This proposition is compatible with contemporary evidence showing that school climate is linked to well-being through processes of identification and contextual interpretation (Klik et al., 2023; Bosacki et al., 2023).

This mediational perspective is also consistent with recent research demonstrating that the relationship between personal characteristics, social resources, and well-being is rarely purely direct. For example, Xiang et al. (2024) demonstrated a longitudinal mediation pathway involving self-concept clarity and hope, while Xu et al. (2022) identified perceived social support and meaning in life as mechanisms connecting personal characteristics with SWB. Li et al. (2025) similarly demonstrated that gratitude and prosocial behavior help explain the relationship between self-concept and adolescent SWB. These findings provide a broader theoretical basis for investigating environmental perceptions as another possible mechanism through which individual and relational resources are translated into well-being.

Nevertheless, an important research gap remains. First, contemporary research has extensively examined self-concept, social support, school climate, and subjective well-being as separate or partially connected constructs, but considerably fewer studies have integrated all three explanatory domains into a single mediation model. Second, although mediation research has examined mechanisms such as hope, meaning in life, self-compassion, resilience, and school identification, the role of the educational climate itself

as a mechanism connecting personal and social resources to SWB remains comparatively underdeveloped. The existing evidence on school climate demonstrates its association with well-being, but does not adequately establish whether students' perceptions of their educational environment explain how personal and interpersonal resources are converted into well-being outcomes.

Third, there is a significant contextual gap concerning Islamic residential education. Much of the contemporary evidence has been generated in conventional schools, universities, or general adolescent populations. For example, the recent longitudinal studies of self-concept and SWB have largely involved Chinese adolescents, while research on social support and school climate has been conducted across conventional educational systems. The residential, religious, and highly structured nature of pesantren potentially alters the meaning of social support, self-concept, and educational climate. In particular, for Qur'anic memorization students, the interaction between academic expectations, religious obligations, peer relationships, institutional discipline, and identity development may produce a distinctive pathway toward subjective well-being.

Accordingly, this study proposes an integrated personal–social–environmental model in which self-concept represents the principal personal resource, social support represents the relational resource, pesantren climate represents the contextual mechanism, and subjective well-being represents the psychological outcome. The model assumes that adolescents who possess a more positive self-concept and perceive stronger social support are more likely to experience their pesantren environment as supportive, safe, relationally connected, and developmentally conducive. A more positive perception of pesantren climate is subsequently expected to contribute to greater subjective well-being. This model therefore moves beyond a simple direct-effects framework by asking how personal and social resources are translated into well-being within a distinctive residential Islamic educational environment.

The study makes three contributions. Theoretically, it extends the school-climate and adolescent well-being literature by conceptualizing pesantren climate as a context-specific psychosocial mechanism. Empirically, it integrates self-concept, social support, pesantren climate, and subjective well-being within a single mediation framework among Qur'anic memorization students, a population that remains comparatively underrepresented in international adolescent well-being research. Practically, the model provides a basis for pesantren administrators, counselors, teachers, and caregivers to move beyond achievement-oriented approaches by simultaneously strengthening students' self-concept, social support networks, and psychosocial environment. The emphasis is therefore not merely on improving individual coping capacity, but on creating an educational ecology in which personal strengths and supportive relationships can be translated into sustainable psychological well-being.

METHOD

Research Design

This study employed a quantitative cross-sectional survey design to examine the relationships among self-concept, social support, pesantren climate, and subjective well-

being among Qur'an-memorizing santri. More specifically, the study tested whether pesantren climate mediates the relationships between self-concept and social support as exogenous predictors and subjective well-being as the outcome variable. The mediation framework was selected because the study sought not only to determine whether self-concept and social support were associated with santri subjective well-being, but also to examine whether students' perceptions of their educational and residential environment constituted a potential psychosocial mechanism underlying these associations.

The study was conducted at Pesantren Bina Madani, Magelang, Indonesia, where santri participate simultaneously in formal secondary education and an intensive Qur'an memorization program. This setting provides a distinctive educational context because santri spend substantial amounts of time within the pesantren environment and experience academic, religious, interpersonal, and residential demands concurrently. Accordingly, pesantren climate was conceptualized as an environmental mechanism through which individual and interpersonal resources may be translated into santri subjective evaluations of their lives. The analytical model specified self-concept and social support as predictor variables, pesantren climate as the mediator, and subjective well-being as the dependent variable. The model therefore estimated both direct associations between the predictors and subjective well-being and indirect associations operating through pesantren climate. Because the data were collected at a single point in time, the findings are interpreted as associational rather than causal despite the use of mediation analysis.

Participants and Sampling

The target population comprised Qur'an-memorizing santri enrolled at the senior secondary school level (SMA/MA) at Pesantren Bina Madani, Magelang. Participants were recruited using purposive sampling based on predetermined inclusion criteria to ensure that respondents possessed sufficient experience with both the pesantren environment and the Qur'an memorization program. Participants were eligible when they met all of the following criteria: (1) they were active students at Pesantren Bina Madani; (2) they were enrolled in the pesantren's Qur'an memorization program; (3) they were santri in Grades X, XI, or XII during the 2025/2026 academic year; (4) they had participated in the tahfiz program for at least one year; and (5) they had memorized a minimum of three *juz* of the Qur'an. These criteria were established to ensure that participants had adequate exposure to the institutional, social, and religious routines relevant to the constructs examined in the study. A total of 143 students met all eligibility criteria and completed the questionnaire in full. Therefore, 143 respondents constituted the final analytical sample. The use of a criterion-based sampling strategy was considered appropriate because the study specifically targeted santri with sustained experience of the pesantren and tahfiz environment rather than the broader student population.

Measures and Instrument Adaptation

All constructs were assessed using five-point Likert-type scales, ranging from 1 (*strongly disagree/not appropriate*) to 5 (*strongly agree/very appropriate*), depending on the wording of individual items. The study employed established instruments or previously adapted versions of established measures. Instrument use and adaptation were conducted

with permission from the respective instrument developers or adaptation authors, including permission to use the Multidimensional Scale of Perceived Social Support (MSPSS) from Prof. Gregory D. Zimet and the adapted instrument developed by Dr. Anniez Rahmawati Musslifah (2025). Before the main survey, a pilot study involving 30 students was conducted to evaluate item performance and internal consistency. Items with a corrected item–total correlation below 0.30 were excluded from the final scales. Internal consistency was assessed using Cronbach's alpha, with values of ≥ 0.70 considered acceptable for research purposes. The resulting measurement structure is presented in Table 1.

Table 1. Characteristics of the Research Instruments

VARIABLE	INSTRUMENT		DIMENSIONS	FINAL ITEMS	CRONBACH'S A
SOCIAL SUPPORT	Multidimensional Scale of Perceived Social Support (MSPSS)		Family, Friends, Significant Others	14	0.769
SELF-CONCEPT	Tennessee Concept (TSCS)	Self Scale	Identity, Self-Satisfaction, Behavior	11	0.843
PESANTREN CLIMATE	Adapted Climate Measure	School Measure	Interactions, Pesantren Conditions, Learning Processes	37	0.935
SUBJECTIVE WELL-BEING	Adapted measure based on Diener's framework		Life Satisfaction, Positive Affect, Negative Affect	7	0.818

Social Support

Perceived social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS) originally developed by Zimet et al. (1988). The Indonesian version used in this study was based on previously validated adaptations reported by Laksmi et al. (2020) and Sulistiani et al. (2022). The measure represents three sources of perceived support: family, friends, and significant others. In the present pesantren context, the *significant others* dimension was operationalized to include individuals who occupy important supportive roles in students' daily lives, particularly ustaz, ustazah, musyrif, and pesantren caregivers. Following pilot testing, 14 items were retained, yielding a Cronbach's alpha of 0.769.

Self-Concept

Self-concept was assessed using an adapted version of the Tennessee Self Concept Scale (TSCS) developed by Fitts (1971). The Indonesian adaptation used in this study was based on the instrument developed by Anniez Rahmawati Musslifah (2025). Consistent with the operational framework adopted in the study, self-concept comprised three

dimensions: identity, self-satisfaction, and behavior. These dimensions capture students' perceptions of who they are, how they evaluate and accept themselves, and how their self-perceptions are reflected in their everyday behavior. Following item screening, 11 items were retained, with a Cronbach's alpha of 0.843.

Pesantren Climate

Pesantren climate was measured using an adaptation of the School Climate Measure, modified to reflect the institutional and residential characteristics of the pesantren context. Rather than treating pesantren merely as a conventional school, the adaptation considered it a multidimensional educational environment in which students learn, reside, worship, interact socially, and participate in structured routines. The adapted measure comprised three dimensions: interactions, pesantren conditions, and learning processes. The interaction dimension assessed perceived relationships and social interactions within the pesantren; pesantren conditions captured students' perceptions of the broader physical and psychosocial environment; and learning processes assessed perceptions of instructional and educational practices. After pilot testing, 37 items were retained. The scale demonstrated high internal consistency, with a Cronbach's alpha of 0.935.

Subjective Well-Being

Subjective well-being was conceptualized according to Diener's framework, emphasizing individuals' cognitive and affective evaluations of their lives. The adapted Indonesian instrument assessed three dimensions: life satisfaction, positive affect, and negative affect. Seven items were retained following preliminary item evaluation, producing a Cronbach's alpha of 0.818. Because the three dimensions represent complementary aspects of subjective well-being, the construct was interpreted as an overall evaluation encompassing both cognitive appraisal and affective experience. In the analysis, higher scores represented more favorable subjective well-being, subject to the scoring direction of the negatively worded affect items.

Instrument Validation and Quality Control

Instrument quality was evaluated in two stages. First, the conceptual and contextual suitability of the adapted measures was considered before administration to the main sample. Particular attention was given to whether items developed for general school environments adequately reflected the distinctive characteristics of pesantren-based education and residential life. Second, a pilot study involving 30 eligible students was conducted. Item-level performance was examined using corrected item–total correlations. Items yielding coefficients below 0.30 were considered insufficiently consistent with their respective scales and were removed from the final instruments. Internal consistency was subsequently assessed using Cronbach's alpha, with a threshold of 0.70 adopted as the minimum acceptable value. The resulting alpha coefficients ranged from 0.769 to 0.935, indicating acceptable to excellent internal consistency across the four constructs. These procedures were intended to reduce measurement error and ensure that the final instruments were sufficiently reliable for subsequent mediation analysis.

Data Collection Procedure

Data collection was conducted after formal research permission had been obtained from Pesantren Bina Madani, Magelang, and permission had been secured for the use and adaptation of the relevant instruments. Prior to the main survey, the pilot study was administered to 30 students using Google Forms. Results from the pilot study were used to evaluate item quality and internal consistency and to determine the final item composition. The main data collection was subsequently conducted in person in the Mahad computer laboratory. Participants completed the questionnaire electronically through Google Forms using computers provided by the institution. Researchers supervised the administration process to ensure that participants received standardized instructions and completed the questionnaire independently. Before responding to the questionnaire, participants received information concerning the purpose of the study, the voluntary nature of participation, the use of their responses for research purposes, and the confidentiality of the information provided. Participants provided informed consent before proceeding to the questionnaire. Following data collection, the dataset underwent systematic screening for completeness and consistency. Responses were checked for missing data and coding errors before the dataset was prepared for statistical analysis. Only complete responses meeting the predetermined eligibility criteria were included in the final analysis.

Data Analysis

Statistical analyses were performed using IBM SPSS Statistics with the PROCESS Macro version 5.0 developed by Hayes. The analytical procedure consisted of preliminary data screening, descriptive analysis, assumption testing, and mediation analysis.

First, descriptive statistics were calculated to characterize the distributions of the study variables. These analyses provided an overview of the central tendency and variability of self-concept, social support, pesantren climate, and subjective well-being.

Second, assumptions relevant to regression-based analysis were examined, including normality, multicollinearity, and heteroscedasticity. Multicollinearity was assessed to determine whether the predictor variables exhibited excessive linear overlap that could compromise the stability of regression estimates. Heteroscedasticity was examined to assess the consistency of residual variance across predicted values. These diagnostic procedures were conducted before interpreting the mediation model.

Third, mediation was tested using PROCESS Model 4, which estimates a simple mediation model with one mediator. In the present study, the model was specified to estimate the direct and indirect associations of self-concept and social support with subjective well-being through pesantren climate.

The conceptual mediation structure can be expressed as follows:

- a. Path a1: Self-concept → Pesantren climate
- b. Path a2: Social support → Pesantren climate
- c. Path b: Pesantren climate → Subjective well-being

- d. Path c'_1 : Self-concept $\rightarrow$ Subjective well-being, controlling for pesantren climate
- e. Path c'_2 : Social support $\rightarrow$ Subjective well-being, controlling for pesantren climate
- f. Indirect effects: Self-concept $\rightarrow$ Pesantren climate $\rightarrow$ Subjective well-being and Social support $\rightarrow$ Pesantren climate $\rightarrow$ Subjective well-being

The indirect effects were evaluated using 5,000 bootstrap resamples and 95% confidence intervals. An indirect effect was considered statistically significant when its bootstrap confidence interval did not contain zero. This approach avoids relying solely on the normality assumption for the sampling distribution of indirect effects and provides a more robust estimation of mediation.

Statistical significance for the direct and total effects was evaluated at $\alpha = 0.05$. The interpretation of mediation was based on the joint consideration of direct and indirect effects. Indirect-only mediation was considered when the indirect effect was statistically significant while the direct effect was not significant. Partial mediation was considered when both the indirect and direct effects were statistically significant. The magnitude and direction of the estimated coefficients were interpreted alongside their confidence intervals rather than relying exclusively on statistical significance. Importantly, because the study used a cross-sectional, non-experimental design, the mediation results were interpreted as evidence of an empirically supported indirect association rather than definitive evidence of temporal or causal mediation. This distinction is particularly important when interpreting the proposed role of pesantren climate as a psychosocial mechanism.

Ethical Considerations

The study followed standard ethical principles for research involving human participants. Institutional permission was obtained before data collection, and participants were informed about the purpose and procedures of the study. Participation was voluntary, and informed consent was obtained before questionnaire completion. Participants were also informed that their responses would be treated confidentially and used exclusively for research purposes. Given that the participants were students and many were adolescents, data collection was conducted under institutional supervision and within the approved educational setting. No personally identifying information was required for the statistical analysis. The dataset was handled in a manner designed to preserve participant confidentiality throughout data screening, analysis, and reporting.

Analytical Model

The analytical model tested in this study positions self-concept (X_1) and social support (X_2) as exogenous predictors, pesantren climate (M) as the mediating variable, and subjective well-being (Y) as the outcome.

The model was designed to test seven proposed relationships:

- H1: Social support is positively associated with subjective well-being.
- H2: Social support is positively associated with pesantren climate.
- H3: Self-concept is positively associated with subjective well-being.
- H4: Self-concept is positively associated with pesantren climate.

- H5: Pesantren climate is positively associated with subjective well-being.
- H6: Pesantren climate mediates the association between social support and subjective well-being.
- H7: Pesantren climate mediates the association between self-concept and subjective well-being.

RESULT AND DISCUSSION

Participant Characteristics and Data Quality

The accessible population comprised 198 female Qur’anic memorization students enrolled in the SMA/MA-level *tahfiz* program at Pesantren Bina Madani Magelang. The population consisted of 69 students in Grade X, 62 in Grade XI, and 67 in Grade XII. From this population, 143 students met the predefined inclusion criteria and completed the research instrument in full. All participants were female and aged between 15 and 18 years. To ensure that the measurement instruments were appropriate for the study population, 30 students were first involved in a pilot study and were excluded from the main analytical sample. The main sample was selected purposively based on five criteria: active enrollment in the pesantren, participation in the Qur’anic memorization program, enrollment in Grades X–XII during the 2025/2026 academic year, participation in the *tahfiz* program for at least one year, and possession of at least three *juz* of Qur’anic memorization. This sampling procedure ensured that respondents had sufficient exposure to the academic, religious, social, and residential environment investigated in the study. The final analytical sample therefore consisted of 143 students, representing approximately 72.2% of the accessible population.

Table 2. Characteristics of the Study Population and Sample

CHARACTERISTIC	CATEGORY	N
ACCESSIBLE POPULATION	Grade X	69
	Grade XI	62
	Grade XII	67
TOTAL POPULATION		198
MAIN STUDY SAMPLE	Eligible respondents	143
PILOT STUDY	Pilot respondents	30
SEX	Female	143
AGE	15–18 years	143

Measurement Reliability

Before testing the proposed mediation model, the internal consistency of the measurement instruments was assessed using Cronbach’s alpha. As reported in Table 3, all four constructs demonstrated coefficients above the commonly applied threshold of 0.70. The reliability coefficients ranged from 0.769 to 0.935, indicating acceptable to very high internal consistency across the measures. The self-concept scale demonstrated a Cronbach’s alpha of 0.843 across 11 retained items, while the social support scale yielded an alpha coefficient of 0.769 across 14 items. The pesantren climate scale produced the highest reliability coefficient ($\alpha = 0.935$) across 37 items, indicating very strong internal consistency. The subjective well-being measure, consisting of seven retained items,

demonstrated a Cronbach's alpha of 0.818. Item screening using the corrected item–total correlation criterion resulted in the retention of items meeting the minimum threshold of 0.30. Taken together, these findings indicate that the instruments provided sufficiently consistent measurement for subsequent correlational and mediation analyses.

Table 3. Reliability of the Measurement Instruments

VARIABLE	FINAL ITEMS	CRONBACH'S A	INTERPRETATION
SELF-CONCEPT	11	0.843	Reliable
SOCIAL SUPPORT	14	0.769	Reliable
PESANTREN CLIMATE	37	0.935	Highly reliable
SUBJECTIVE WELL-BEING	7	0.818	Reliable

Descriptive Statistics

Table 4 presents the descriptive characteristics of the four study variables. The mean scores for social support ($M = 3.53$, $SD = 0.57$), self-concept ($M = 3.65$, $SD = 0.41$), pesantren climate ($M = 3.15$, $SD = 0.42$), and subjective well-being ($M = 3.26$, $SD = 0.47$) were all above the midpoint of the five-point response scale. Among the four constructs, self-concept had the highest mean score ($M = 3.65$), followed by perceived social support ($M = 3.53$). Subjective well-being had a mean of 3.26, whereas perceived pesantren climate had the lowest mean ($M = 3.15$). The relatively modest standard deviations indicate that responses were not widely dispersed around their respective means, although the observed minimum and maximum scores demonstrate meaningful individual variation. The descriptive pattern is noteworthy because it indicates that the students generally reported relatively favorable personal and social conditions, while perceptions of the pesantren environment were comparatively less pronounced. This distinction becomes particularly relevant in the mediation analysis, because the subsequent findings demonstrate that pesantren climate is strongly associated with subjective well-being despite having a comparatively lower mean score.

Table 4. Descriptive Statistics

VARIABLE	N	MINIMUM	MAXIMUM	MEAN	SD
SOCIAL SUPPORT	143	2.18	5.00	3.53	0.57
SELF-CONCEPT	143	2.50	4.71	3.65	0.41
PESANTREN CLIMATE	143	2.05	4.24	3.15	0.42
SUBJECTIVE WELL-BEING	143	2.00	4.86	3.26	0.47

Bivariate Associations Among the Study Variables

Pearson product–moment correlations were calculated to examine the bivariate relationships among social support, self-concept, pesantren climate, and subjective well-being. All reported associations were positive and statistically significant, although their magnitudes differed substantially. Social support was positively correlated with self-concept ($r = 0.404$, $p < 0.001$), indicating a moderate positive association between perceived social resources and students' evaluations of themselves. Social support was also positively associated with pesantren climate ($r = 0.376$, $p < 0.001$) and subjective

well-being ($r = 0.236, p = 0.005$). These results suggest that students who perceived greater social support also tended to perceive their pesantren environment more positively and report higher subjective well-being. Self-concept demonstrated a positive association with pesantren climate ($r = 0.352, p < 0.001$) and a stronger association with subjective well-being ($r = 0.390, p < 0.001$). The strongest correlation in the dataset was observed between pesantren climate and subjective well-being ($r = 0.811, p < 0.001$). This large association indicates that students' perceptions of their educational and residential environment were closely related to their subjective evaluation of life. Importantly, however, the magnitude of this bivariate relationship does not itself establish mediation or causality; these questions were addressed through the subsequent regression-based mediation analyses.

Regression Assumption Testing

Prior to mediation analysis, the data were examined for the principal regression assumptions. The Kolmogorov–Smirnov test conducted on the unstandardized residuals produced a statistic of 1.089 with $p = 0.186$. Because the probability value exceeded 0.05, there was no statistical evidence of substantial departure from normality in the regression residuals. Multicollinearity was also assessed using tolerance and variance inflation factor (VIF) statistics. Tolerance values ranged from 0.778 to 0.824, while VIF values ranged from 1.213 to 1.285. These results indicate that the predictor variables did not exhibit problematic multicollinearity. The Glejser test produced a more nuanced result. Self-concept ($p = 0.997$) and pesantren climate ($p = 0.419$) did not show evidence of heteroscedasticity. However, social support produced a significant Glejser coefficient ($p = 0.001$), suggesting possible heteroscedasticity associated with this predictor. Because the principal inferential analysis employed PROCESS-based mediation with 5,000 bootstrap resamples, inference concerning the indirect effects was based on bootstrap confidence intervals rather than relying exclusively on conventional normal-theory assumptions. This distinction is important because the central objective of the study was to estimate indirect effects, for which bootstrapping provides a more appropriate inferential framework than assuming that the sampling distribution of an indirect effect is normal.

Mediation Analysis

Social Support, Pesantren Climate, and Subjective Well-Being

The first mediation model examined whether pesantren climate explained the association between social support and subjective well-being while statistically controlling for self-concept. The mediator model was statistically significant, $R^2 = 0.176, F(2, 140) = 14.93, p < 0.001$, indicating that social support and self-concept jointly accounted for 17.6% of the variance in perceived pesantren climate. Social support was positively associated with pesantren climate ($B = 0.1923, SE = 0.0626, t = 3.074, p = 0.003$). Self-concept also demonstrated a significant positive association with pesantren climate ($B = 0.2441, p = 0.005$). Thus, students reporting greater social support and a more positive self-concept tended to perceive the pesantren environment more favorably.

The outcome model was statistically significant and explained 59.7% of the variance in subjective well-being, $R^2 = 0.597$, $F(3, 139) = 68.51$, $p < 0.001$. Pesantren climate emerged as a strong positive predictor of subjective well-being ($B = 0.8082$, $SE = 0.0665$, $t = 12.162$, $p < 0.001$). In contrast, the direct association between social support and subjective well-being was not statistically significant after accounting for pesantren climate and self-concept ($B = -0.0525$, $p = 0.303$). Self-concept remained positively associated with subjective well-being ($B = 0.1924$, $p = 0.006$). Most importantly, the bootstrap analysis demonstrated a statistically significant indirect effect of social support on subjective well-being through pesantren climate. The estimated indirect effect was 0.1554, with a 95% bootstrap confidence interval ranging from 0.0717 to 0.2508. Because the confidence interval did not include zero, the indirect pathway was statistically significant. The combination of a significant indirect effect and a nonsignificant direct effect indicates an indirect-only mediation pattern. In substantive terms, the findings suggest that the association between perceived social support and subjective well-being operates primarily through students' perceptions of their pesantren environment. Social support appears to be consequential for well-being insofar as it is associated with a more favorable perception of the social and educational environment in which students live and study.

Table 8. Mediation of the Social Support–Subjective Well-Being Association by Pesantren Climate

PATH	B	SE	T	P
SOCIAL SUPPORT → PESANTREN CLIMATE	0.192	0.063	3.074	0.003
PESANTREN CLIMATE → SUBJECTIVE WELL-BEING	0.808	0.067	12.162	<0.001
SOCIAL SUPPORT → SUBJECTIVE WELL-BEING (DIRECT EFFECT)	−0.053	0.051	−1.033	0.303
INDIRECT EFFECT	Effect	BootSE	BootLLCI	BootULCI
SOCIAL SUPPORT → PESANTREN CLIMATE → SUBJECTIVE WELL-BEING	0.155	0.045	0.072	0.251

Self-Concept, Pesantren Climate, and Subjective Well-Being

The second mediation model examined whether pesantren climate mediated the association between self-concept and subjective well-being while controlling for social support. The mediator model again explained 17.6% of the variance in pesantren climate. Self-concept was positively associated with pesantren climate ($B = 0.2441$, $SE = 0.0856$, $t = 2.851$, $p = 0.005$), while social support, entered as a covariate, also remained positively associated with the mediator ($B = 0.1923$, $p = 0.003$). In the outcome model, both self-concept and pesantren climate were significant positive predictors of subjective well-being. Self-concept demonstrated a direct association with subjective well-being ($B = 0.1924$, $SE = 0.0693$, $t = 2.779$, $p = 0.006$), while pesantren climate exhibited a substantially stronger association ($B = 0.8082$, $SE = 0.0665$, $t = 12.162$, $p < 0.001$). The

overall model explained 59.7% of the variance in subjective well-being. Before the mediator was introduced, the total association between self-concept and subjective well-being was statistically significant ($B = 0.3897, p < 0.001$). After pesantren climate was included in the model, the direct association remained significant but was reduced in magnitude to $B = 0.1924$ ($p = 0.006$). This reduction, together with the significant indirect pathway, provides evidence that part of the association between self-concept and subjective well-being operates through perceived pesantren climate.

The bootstrap estimate of the indirect effect was 0.1973, with a 95% bootstrap confidence interval of [0.0636, 0.3452]. Because zero was not contained within this interval, the indirect effect was statistically significant. Since both the direct and indirect effects were significant, the results indicate partial mediation. Accordingly, self-concept appears to contribute to subjective well-being through two complementary pathways. First, students with more positive self-concepts tend to report higher subjective well-being directly. Second, a positive self-concept is associated with a more favorable perception of the pesantren environment, which in turn is strongly associated with subjective well-being. The mediation model therefore suggests that the environmental context does not replace the role of personal self-evaluation; rather, it constitutes an additional pathway through which self-concept is associated with students' well-being.

Table 9. Mediation of the Self-Concept–Subjective Well-Being Association by Pesantren Climate

PATH	B	SE	T	P
SELF-CONCEPT → PESANTREN CLIMATE	0.244	0.086	2.851	0.005
PESANTREN CLIMATE → SUBJECTIVE WELL-BEING	0.808	0.067	12.162	<0.001
SELF-CONCEPT → SUBJECTIVE WELL-BEING (DIRECT EFFECT)	0.192	0.069	2.779	0.006
INDIRECT EFFECT	Effect	BootSE	BootLLCI	BootULCI
SELF-CONCEPT → PESANTREN CLIMATE → SUBJECTIVE WELL-BEING	0.197	0.071	0.064	0.345

Summary of Hypothesis Testing

The hypothesis-testing results are summarized in Table 10. Five direct hypotheses concerning positive associations among the constructs received empirical support, while the direct association between social support and subjective well-being became nonsignificant once the mediator and covariate were included in the outcome model. The mediation findings provide the central contribution of the analysis. The relationship between social support and subjective well-being was characterized by indirect-only mediation, whereas the relationship between self-concept and subjective well-being demonstrated partial mediation through pesantren climate.

Table 10. Summary of Hypothesis Testing

HYPOTHESIS	PROPOSED RELATIONSHIP	DECISION	INTERPRETATION
H1	Social support → Subjective well-being	Not supported	Direct effect nonsignificant after controlling for mediator and self-concept
H2	Social support → Pesantren climate	Supported	Positive significant association
H3	Self-concept → Subjective well-being	Supported	Positive significant direct association
H4	Self-concept → Pesantren climate	Supported	Positive significant association
H5	Pesantren climate → Subjective well-being	Supported	Strong positive association
H6	Social support → Pesantren climate → Subjective well-being	Supported	Indirect-only mediation
H7	Self-concept → Pesantren climate → Subjective well-being	Supported	Partial mediation

Overall Pattern of Findings

Taken together, the results reveal a consistent but differentiated pattern in the proposed model. Both social support and self-concept were positively associated with perceptions of pesantren climate, while pesantren climate showed a particularly strong association with subjective well-being. The strength of the relationship between pesantren climate and subjective well-being was substantially greater than the bivariate relationships involving social support or self-concept. The mediation analysis further clarifies this pattern. Social support was positively related to subjective well-being at the bivariate level ($r = 0.236$, $p = 0.005$), but its direct effect became nonsignificant after pesantren climate and self-concept were taken into account. Nevertheless, the indirect effect remained significant. This indicates that the contribution of social support to subjective well-being is better understood through its association with students' perceptions of their immediate educational and residential environment.

In contrast, self-concept maintained a significant direct relationship with subjective well-being after pesantren climate was introduced into the model. At the same time, its indirect effect through pesantren climate was also significant. The resulting partial mediation indicates that self-concept operates both as an individual-level resource and as a factor associated with how students perceive their surrounding educational environment. The overall model therefore provides empirical support for conceptualizing subjective well-being among Qur'anic memorization students as a phenomenon shaped by the interplay of personal characteristics, social resources, and environmental perceptions. Within this framework, pesantren climate emerges not merely as an additional predictor but as an important psychosocial pathway through which students' social and personal experiences become associated with their evaluations of well-being. The finding is particularly

relevant in residential Islamic education because the pesantren simultaneously functions as a learning environment, religious environment, social community, and living environment.

DISCUSSION

The Role of Pesantren Climate in Shaping Santri's *Subjective Well-Being*

The main finding of this study indicates that pesantren climate is a strong predictor of santri's subjective well-being (SWB). The relationship between pesantren climate and SWB was positive and very strong ($r = 0.811$, $p < .001$), while in the mediation model, pesantren climate remained positively and significantly associated with SWB ($B = 0.8082$, $SE = 0.0665$, $t = 12.162$, $p < .001$). This finding indicates that santri's well-being cannot be understood solely as an individual psychological characteristic but is strongly associated with how they perceive the environment in which they study, worship, interact, and live their daily lives. Thus, the findings provide empirical support for an ecological perspective, which views adolescent well-being as a product of interactions between individuals and the social contexts in which they develop.

These findings are consistent with the longitudinal study by Wu and Becker (2023), which demonstrated that school contexts are associated with the development of adolescents' *subjective well-being*, including life satisfaction and school satisfaction. Similarly, Klik et al. (2023) found that school climate was associated with student well-being, with school identification serving as one mechanism that helps explain this relationship. Bosacki et al. (2023) further emphasized that school climate represents a social ecology encompassing teacher–student relationships, peer relationships, safety, connectedness, and the emotional quality of the learning environment, all of which are associated with adolescents' emotional well-being. Accordingly, the present findings extend previous evidence from the context of *school climate* to pesantren climate, an educational environment characterized by greater intensity because education, caregiving, religious development, and social life take place within a relatively integrated setting.

The magnitude of the association between pesantren climate and SWB in this study also has important conceptual implications. In conventional schools, students generally experience a relatively clear separation between the educational environment and the family environment. In contrast, santri who live in pesantren spend most of their time within the pesantren environment. Consequently, perceptions of interactions with *ustaz*, *ustazah*, *musyrif*, caregivers, and peers, as well as perceptions of the quality of learning processes, discipline, religious atmosphere, and physical conditions of the pesantren, become integral components of santri's lived experiences. This system makes pesantren climate not merely an *educational setting* but also a living environment. This perspective is consistent with Obeidat et al. (2024), who highlighted the growing scholarly attention to the relationship between school climate and student well-being. Podiya et al. (2025), through a systematic review, similarly demonstrated that supportive school environments are associated with adolescents' emotional health, development, and academic achievement.

Accordingly, the finding supporting H5—that pesantren climate is positively associated with SWB—has substantial practical relevance. Enhancing santri’s well-being cannot be achieved solely through individual-level programs, such as counseling or emotion-regulation training; it should also involve interventions at the environmental level. Pesantren administrators should establish psychologically safe environments, supportive interpersonal relationships, non-repressive communication patterns, consistent yet proportionate rules, and *tahfiz* learning processes that take santri’s psychological capacities into account. From this perspective, memorization targets should not constitute the sole indicator of success in Qur’anic memorization education. Santri’s well-being should be positioned as an educational outcome that develops alongside academic and religious achievement.

Self-Concept as a Predictor of Subjective Well-Being

The findings indicate that self-concept is positively and significantly associated with SWB. At the bivariate level, self-concept was correlated with SWB at $r = 0.390$ ($p < .001$). In the mediation model, self-concept also demonstrated a significant direct association with SWB ($B = 0.1924$, $SE = 0.0693$, $t = 2.779$, $p = .006$). These findings suggest that the way santri understand, evaluate, and accept themselves plays an important role in shaping their subjective evaluations of life. Santri with a more positive self-concept may be better able to interpret memorization demands, academic requirements, discipline, and social life as manageable challenges rather than threats to their self-worth.

This finding is strongly supported by Xiang et al. (2023), who, using a longitudinal design, identified a dynamic association between *self-concept clarity* and SWB among adolescents. Their findings indicated that greater clarity regarding one’s self-concept was associated with cognitive and emotional well-being, although the causal direction of this relationship should be interpreted cautiously. Xiang et al. (2024) similarly demonstrated an association between *self-concept clarity* and adolescent SWB and found that *hope* may function as a psychological mechanism underlying this relationship. Li et al. (2025) further strengthened this evidence by showing that self-concept is associated with SWB during early adolescence through mechanisms such as *gratitude* and prosocial behavior.

The present findings demonstrate that self-concept functions not merely as a cognitive evaluation of “who I am,” but also as an interpretive framework through which santri understand their everyday experiences. In the context of *tahfiz*, for example, failure to achieve a memorization target may be interpreted as evidence of personal inadequacy by santri with a negative self-concept. Conversely, santri with a more adaptive self-concept may perceive such failure as part of the learning process that can be improved through strategy, support, and effort. These differences in interpretation may subsequently produce differences in life satisfaction and affective experiences. Therefore, the relationship between self-concept and SWB identified in this study can be understood through a self-appraisal mechanism: the more positive and coherent an individual’s self-evaluation, the greater the likelihood that the individual will maintain a positive evaluation of life. These findings are also consistent with Azpiazu et al. (2025), who

demonstrated that self-concept, social support, and resilience function as protective factors against *school maladjustment* during adolescence. This finding is important because academic and social maladjustment may represent conditions that undermine subjective well-being. Within the pesantren context, a positive self-concept may help santri maintain a sense of identity and continuity despite being exposed to relatively intensive social and religious demands.

Social Support and Subjective Well-Being: Why Was the Direct Effect Nonsignificant?

One of the most notable findings is the discrepancy between the bivariate association and the direct effect of social support on SWB after the mediator was introduced. The correlation analysis showed that social support was positively and significantly associated with SWB ($r = 0.236, p = .005$). However, in the mediation model controlling for self-concept and incorporating pesantren climate as a mediator, the direct effect of social support on SWB became nonsignificant ($B = -0.0525, p = .303$). This finding should not be interpreted as evidence that social support is unimportant. Rather, it suggests that the association between social support and SWB among santri may operate primarily through their perceptions of the pesantren environment. This interpretation is supported by Diyana and Jatnika (2022), whose meta-analysis identified a positive association between social support and psychological well-being among Indonesian adolescents while also demonstrating substantial heterogeneity across studies. This suggests that the strength of the relationship between social support and well-being is not necessarily uniform and may depend on social context and population characteristics. Seok and Doom (2022) similarly demonstrated that different configurations of support from parents, peers, teachers, and adults have distinct consequences for adolescents' psychosocial development over time.

Within the pesantren context, social support does not exist as an experience independent of the broader environment. Support from family members, peers, *ustaz*, *ustazah*, *musyirif*, and pesantren caregivers may shape santri's perceptions that the pesantren is a safe, caring, and supportive environment. These environmental perceptions may subsequently be associated with SWB. In other words, social support can function as a social input, whereas pesantren climate represents a contextual mechanism through which that input is translated into well-being experiences. This pattern helps explain why the direct coefficient for social support became nonsignificant after the mediator was included.

This finding is also consistent with recent research showing that the effects of social factors on well-being often operate through psychological and contextual mechanisms. For example, Arslan (2024) demonstrated that the relationship between parenting-related factors and adolescent SWB can be explained through prosocial behavior and *meaning in life*. Eryılmaz et al. (2025) similarly showed that associations between psychological characteristics and adolescent SWB may operate through sequential mechanisms such as *hope* and prosociality. Thus, the present findings strengthen the argument that adolescent well-being is determined not only by how much support individuals receive, but also by how that support shapes their experiences and perceptions of their social environment. This interpretation is further supported by Pina et al. (2025), who found that social support

among adolescents was positively associated with *life satisfaction* and negatively associated with various emotional and behavioral difficulties. Their findings also support the validity of the MSPSS as a multidimensional measure of perceived social support among adolescents. Therefore, the nonsignificant direct effect identified in the present study is more appropriately interpreted as evidence of indirect-only mediation, rather than as evidence that social support is irrelevant to well-being.

Pesantren Climate as a Mediator of the Relationship Between Social Support and Subjective Well-Being

The bootstrapping analysis demonstrated that the indirect effect of social support on SWB through pesantren climate was 0.1554, with a 95% confidence interval ranging from *BootLLCI* = 0.0717 to *BootULCI* = 0.2508. Because the confidence interval did not include zero, the indirect effect was statistically significant. At the same time, the direct effect of social support on SWB was nonsignificant. This pattern indicates indirect-only mediation, suggesting that social support is associated with SWB primarily through the formation of positive perceptions of pesantren climate. Substantively, this mechanism can be explained as follows. When santri perceive support from family, peers, and significant others such as *ustaz*, *ustazah*, *musyrif*, and pesantren caregivers, they gain interpersonal resources for coping with the demands of pesantren life. Such support may increase feelings of safety, acceptance, appreciation, and belonging within the community. These experiences may subsequently shape perceptions of the pesantren as a supportive environment. When perceptions of pesantren climate become more positive, santri may be more likely to experience greater life satisfaction, more positive affect, and fewer negative affective experiences.

This explanation is consistent with Klik et al. (2023), who found that *school identification* may serve as a mechanism connecting characteristics of school climate with student well-being. It is also consistent with Bosacki et al. (2023), who conceptualized educational climate as a social ecology that influences adolescents' emotional and psychosocial experiences. Meanwhile, Gustafsson et al. (2025) demonstrated that social support and patterns of social interaction are associated with adolescents' psychosocial well-being, further highlighting the importance of relationship quality in understanding adolescent well-being. Accordingly, an important contribution of this study is the development of the understanding that social support does not operate within a psychological vacuum. In a residential educational system, social support is translated through the social and institutional structures in which santri live their daily lives. Therefore, interventions aimed at improving santri's SWB should not only strengthen interpersonal support but should also ensure that such support is embedded within the pesantren system through positive caregiving relationships, open communication, peer-support mechanisms, and accessible psychological support services.

Pesantren Climate as a Partial Mediator Between Self-Concept and Subjective Well-Being

Another important finding concerns the mediating role of pesantren climate in the relationship between self-concept and SWB. Self-concept was positively associated with

pesantren climate ($B = 0.2441$, $p = .005$), while pesantren climate was positively associated with SWB ($B = 0.8082$, $p < .001$). The indirect effect of self-concept on SWB was 0.1973, with a 95% bootstrap confidence interval of [0.0636, 0.3452]. At the same time, the direct effect of self-concept remained significant ($B = 0.1924$, $p = .006$). This pattern indicates partial mediation. These findings suggest that self-concept affects SWB through two pathways. The first is a direct pathway, whereby a positive self-concept enables santri to evaluate themselves and their lives more adaptively. The second operates through the environment: santri with a more positive self-concept may develop more adaptive social interactions and perceive the pesantren environment more positively. More positive perceptions of pesantren climate may then contribute to higher SWB. Thus, pesantren climate is not merely an environment that influences the individual; rather, perceptions of the environment may also be shaped by individual psychological characteristics.

This finding is consistent with Xiang et al. (2024), who demonstrated that the relationship between *self-concept clarity* and SWB may be explained through psychological mechanisms such as *hope*. Li et al. (2025) likewise showed that self-concept is associated with SWB through interpersonal and psychological processes, including *gratitude* and prosocial behavior. The present study extends this line of research by demonstrating that the educational environment can also function as a psychosocial mechanism. This finding is particularly relevant to santri who memorize the Qur'an. Santri develop their identities through multiple simultaneous roles: as students, Qur'an memorizers, members of the pesantren community, peers, and individuals progressing toward adulthood. When self-concept is relatively positive, these demands may be integrated into a coherent identity. Conversely, a negative self-concept may cause academic and *tahfiz* demands to be perceived as threats to personal competence. Therefore, self-concept development should become an integral component of guidance and counseling programs in pesantren.

The Magnitude of Pesantren Climate's Contribution to Subjective Well-Being

The research model demonstrated that when social support, self-concept, and pesantren climate were simultaneously entered into the outcome model, the model explained approximately 59.66% of the variance in SWB ($R^2 = 0.597$). This proportion indicates substantial explanatory power. However, it also means that approximately 40.34% of the variance in SWB remains attributable to factors not included in the present model. This finding is important because SWB is a multidimensional construct that may be influenced by personal characteristics, interpersonal relationships, academic experiences, mental health, family conditions, religiosity, resilience, hope, and other environmental factors.

Madalena et al. (2024), for example, demonstrated that adolescents' psychological well-being is associated with a combination of family factors, academic attributions, and perceptions of school performance. Meanwhile, Kleinkorres et al. (2023) found that teacher autonomy support is associated with longitudinal changes in adolescent well-being. These findings indicate that the relationship between educational environments and well-being extends beyond the concept of school climate and includes the pedagogical experiences encountered by students. In the pesantren context, religious

factors may also represent important variables. Religious routines, *tahfiz* activities, relationships with caregivers, spiritual meaning, and religious identity may interact with self-concept and social support in shaping SWB. However, because these variables were not measured in the present study, their effects cannot be empirically inferred. Future research could therefore extend the model by incorporating *religious well-being, meaning in life, resilience, hope, academic self-efficacy, or school belonging* as additional mediators or moderators.

Theoretical Implications: From School Climate to Pesantren Climate

Theoretically, this study contributes to the literature by adapting the concept of *school climate* to the pesantren context and empirically testing it as a mediating mechanism. Contemporary literature indicates that *school climate* is a multidimensional construct encompassing social relationships, safety, learning processes, belonging, and institutional environmental quality. Obeidat et al. (2024) demonstrated the growing scholarly interest in the relationship between *school climate* and student well-being in contemporary educational research. Podiya et al. (2025) similarly showed that supportive school environments are associated with adolescents' emotional health and academic outcomes.

In the present study, this construct takes on a broader meaning because the pesantren functions simultaneously as an educational and residential environment. Therefore, the concept of pesantren climate can be developed as a construct encompassing the quality of interpersonal relationships, religious atmosphere, learning processes, disciplinary structures, psychological safety, caregiving support, peer interactions, and the physical and social conditions of the pesantren. This conceptualization may represent an important theoretical contribution that distinguishes research on santri well-being from research on students' well-being in conventional school settings. Research by Cohman et al. (2024) on *school belonging* also demonstrates that students' sense of connectedness to their educational environment is associated with well-being. Similarly, Song et al. (2024) found that *school belonging* can function as a mechanism linking social identity with emotional well-being and academic outcomes. These findings provide conceptual support for the argument that students' subjective experiences of educational environments represent an important pathway through which well-being develops.

Practical Implications for Pesantren Management and Guidance and Counseling

Practically, the findings indicate that improving santri's SWB requires an ecological approach. First, pesantren administrators should strengthen the quality of interpersonal relationships between santri and *ustaz, ustazah, musyrif, caregivers, and peers*. Second, *tahfiz* programs should be designed to balance memorization targets, academic workload, rest periods, social activities, and santri's psychological needs. Third, guidance and counseling services should pay particular attention to the development of positive self-concepts, especially by helping santri cope with memorization difficulties, social comparison, academic pressure, and self-evaluation. Fourth, social-support systems should be established systematically. Support should not be provided only when santri experience difficulties but should become part of the everyday culture of the pesantren. Findings by Pina et al. (2025) support the importance of social support as a protective

resource for adolescent well-being and mental health. Fifth, pesantren administrators should establish early-detection mechanisms for santri who demonstrate declining well-being, for example through changes in social participation, learning motivation, *tahfiz* engagement, and interpersonal relationships. Accordingly, counseling in pesantren should not be limited to addressing individual problems. Counselors should also function as change agents who contribute to the development of supportive psychosocial environments. This approach is consistent with emerging literature conceptualizing adolescent well-being as an outcome of interactions among individual, relational, and environmental factors. Budler et al. (2025), for example, emphasized the importance of family, peer, teacher, and broader social environments in understanding adolescent mental well-being.

Synthesis of Findings and Contributions

Overall, this study produced three important findings. First, self-concept has a direct and positive relationship with SWB, highlighting the importance of personal factors in shaping santri's well-being. Second, social support does not have a significant direct effect on SWB after pesantren climate is controlled for, but it has a significant indirect effect through pesantren climate. This finding indicates *indirect-only mediation* and suggests that social support operates primarily through the formation of positive perceptions of the pesantren environment. Third, pesantren climate partially mediates the relationship between self-concept and SWB, indicating that self-concept operates through both personal and contextual pathways. These findings contribute to the literature because previous studies have generally examined self-concept, social support, educational climate, and SWB separately. The present study integrates these four constructs within a single model and applies the model to a contextually distinctive population: female Qur'an-memorizing santri living within a residential Islamic educational system. The findings indicate that santri's well-being is not simply a matter of how positively individuals perceive themselves or how much social support they receive, but also how personal and social factors are translated into experiences of the pesantren environment.

This finding provides a basis for developing a conceptual model termed the Personal–Social–Environmental Pathway of Santri Well-Being, which proposes that santri's SWB is shaped by interactions among personal resources in the form of self-concept, social resources in the form of social support, and an environmental mechanism represented by pesantren climate. This model may serve as a foundation for future research examining *moderated mediation*, longitudinal designs, comparisons between male and female pesantren, and comparisons between Qur'an-memorizing and non-Qur'an-memorizing santri. Thus, this study not only strengthens existing evidence regarding the determinants of adolescent SWB but also offers a conceptual extension concerning how religiously based residential educational environments can function as psychosocial mechanisms in shaping adolescent well-being.

CONCLUSION

This study concludes that pesantren climate plays a central role in shaping the subjective well-being of female Qur'an-memorizing students at Pesantren Bina Madani Magelang.

The findings demonstrate that pesantren climate has a strong positive association with subjective well-being and explains a substantial proportion of its variance when considered alongside social support and self-concept. Self-concept also demonstrates a significant positive direct relationship with subjective well-being, indicating that students who possess more positive self-perceptions tend to experience greater life satisfaction and more favorable emotional states. Social support, however, does not demonstrate a significant direct effect on subjective well-being after accounting for pesantren climate and self-concept. Instead, its effect occurs indirectly through pesantren climate, indicating an indirect-only mediation pattern. This finding suggests that interpersonal support contributes to student well-being primarily by strengthening perceptions of the pesantren as a supportive, safe, and conducive living-learning environment. Meanwhile, pesantren climate partially mediates the relationship between self-concept and subjective well-being, indicating that self-concept influences well-being through both direct psychological processes and environmental experiences. Overall, the findings support an ecological perspective of santri well-being, emphasizing the interaction of personal, social, and environmental factors. Strengthening students' subjective well-being therefore requires integrated interventions addressing self-concept, social support, and the quality of the pesantren environment simultaneously.

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