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Individual, Relational, and Institutional Correlates of Character Development in Indonesian Juvenile Correctional Institutions: A Mixed-Methods Study

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ABSTRACT

Purpose: This study examines the extent to which individual, relational, and institutional factors are associated with character development among juveniles in Indonesian juvenile correctional institutions (LPKA), and how stakeholders explain these associations. **Methods:** An explanatory sequential mixed-methods design was employed. In the quantitative phase, all 458 juveniles in LPKA Bandung, Medan, and Payakumbuh were surveyed through total sampling. Character development was measured using a nine-item, five-point Likert scale covering discipline, responsibility and honesty, cooperation, self-confidence, and daily application of character values (α = .882). Data were analysed using multiple linear regression with assumption diagnostics and robust standard errors. In the qualitative phase, 46 purposively selected informants (34 juveniles, seven educators, and three institutional heads) participated in semi-structured interviews analysed thematically. **Findings:** Child involvement, staff competence and role modelling, quality of character education methods, and environmental and resource support were positively and significantly associated with character development (β = .189–.291; R^2 = .857), and their standardized coefficients did not differ significantly. However, all measures were self-reported and loaded on a single common factor, indicating substantial shared method variance; the high explained variance should be interpreted cautiously. Interviews indicated that habituation, direct practice, and staff guidance created opportunities to enact values, whereas engagement and institutional support varied across juveniles and institutions. **Research Implications**: LPKA should prioritise participatory methods, constructive staff–youth relationships, and resources supporting consistent value practice. **Originality:** The study combines individual, relational, and institutional correlates with qualitative explanation; findings are associational, not causal.

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INTRODUCTION

Character development is a central goal of rehabilitation in juvenile correctional institutions, which are expected not only to maintain security but also to support young people's moral, social, and behavioral development. Evidence indicates that structured character education can improve developmental outcomes, although its effectiveness varies across program types and implementation conditions. A meta-analysis of 214 studies involving 307,512 participants reported a small but significant positive effect of character education (Brown et al., 2023). This variation highlights the importance of implementation quality, meaningful participation, social interaction, and opportunities to practice moral values rather than relying solely on knowledge transmission (Berkowitz & Bier, 2007; Walden & Allen, 2019). Character development should therefore be understood as a process shaped by both educational practices and the environments in which young people participate.

This perspective is particularly relevant to juvenile correctional institutions, where restricted autonomy, institutional routines, and separation from family and community create tensions between custodial security and developmental needs. Contemporary juvenile justice scholarship emphasizes that rehabilitation requires attention to interconnected social, relational, and institutional influences (April et al., 2023). Within secure settings, relational security built through constructive staff–youth relationships, understanding, and a therapeutic environment is essential alongside physical and procedural security (Souverein, 2023). Institutional transformation can also strengthen staff–youth relationships by improving staffing consistency and opportunities for meaningful

interaction (Brubaker & Cleary, 2023). These findings suggest that character development cannot be explained solely by the presence of institutional programs but must be examined through the conditions under which rehabilitation occurs.

At the individual level, young people's involvement is important because rehabilitation is more likely to become meaningful when they can express their perspectives, participate in decisions, and assume responsibility for their behavior. A meta-synthesis of youth justice research found that young people valued being treated with respect, feeling understood, and having supportive relationships with professionals who demonstrated genuine care (Moore et al., 2025). Similarly, participation in case planning, reflection, and decision-making can strengthen self-insight and motivation to change (Souverein, 2023). At the relational level, staff competence and role modelling may further shape character development through everyday communication, responses to misconduct, and demonstrations of fairness and respect. Research identifies trust, reciprocal respect, understanding, and constructive communication as important characteristics of effective child–staff relationships (Jacob et al., 2024). Everyday staff practices that promote emotional safety, explain institutional expectations, and encourage success can also support rehabilitation (Sichel et al., 2019). Staff attitudes, constructive alliances, and positive role modelling are likewise central to relational security, while consistent staffing and opportunities to build rapport can strengthen perceptions of care and connection (Brubaker & Cleary, 2023; Souverein, 2023).

Institutional conditions and educational methods constitute another important dimension. Facility design, communal spaces, privacy, staffing levels, and opportunities for face-to-face interaction can facilitate or constrain relational security and therapeutic processes (Oostermeijer et al., 2022). Staffing arrangements and program structures may also influence interpersonal dynamics and opportunities for rehabilitation (Brubaker & Cleary, 2023). However, adequate resources alone do not guarantee meaningful character development; educational methods must provide coherent opportunities to understand, practice, and reflect on desired values. Although character education programs demonstrate positive overall effects, their outcomes vary according to intervention characteristics. In Indonesia, LPKA institutions have implemented character education through religious activities, sports, music, Qur'an reading, and productive activities, yet the absence of an integrated curriculum has been identified as an implementation challenge (Fatmasari et al., 2019). More recent research also documents habituation-based religious character education in juvenile correctional settings (Sulistijaningsih et al., 2025). Together, these findings highlight the importance of examining educational methods alongside environmental and resource support.

Bronfenbrenner's bioecological model offers a theoretical foundation for integrating these dimensions. The model conceptualizes development through the interaction of process, person, context, and time (PPCT), with proximal processes, the regular and progressively more complex interactions between a developing person and their immediate environment, as the primary mechanisms of development (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2007). Applied to juvenile correctional institutions, the four factors examined in this study map onto distinct components of this model. Child involvement reflects the person component, capturing the active dispositions and engagement that young people bring to developmental activities. Staff competence and role modelling represent the relational conditions under which proximal processes occur, because staff are the adults with whom juveniles interact most frequently in custody. Quality of character education methods and environmental and resource support represent the institutional context that structures the form, frequency, and continuity of these interactions. This mapping is consistent with social-ecological perspectives on juvenile justice and with research linking relational security to interactions among young people, staff, and institutional environments (April et al., 2023; Souverein, 2023). However, the present study does not operationalize the complete PPCT model. Proximal processes are not measured directly, and the time dimension is not examined because data were collected at a single point. The bioecological framework is therefore used as an organizing lens for selecting and interpreting predictors rather than as a model tested in its entirety.

Despite these advances, existing research leaves three specific gaps. First, the evidence base has examined the relevant factors largely in isolation. Brown et al. (2023) synthesized program-level effects of character education without examining the relational and institutional conditions of delivery; Moore et al. (2025) and Jacob et al. (2024) documented the importance of staff–youth relationships from young people's perspectives but did not examine how these relationships operate alongside educational methods or institutional resources; and Oostermeijer et al. (2022) focused on how facility design shapes staff practice without assessing youth outcomes. Consequently, it remains unclear whether these factors retain distinct associations with character development when considered simultaneously. Second, Indonesian studies of LPKA have relied predominantly on single-site qualitative or descriptive designs. Fatmasari et al. (2019), Shofiyuddin et al. (2022), and Sulistijaningsihm et.al,. (2025) described program implementation, religious habituation, and institutional constraints within individual institutions, yet did not quantify how these conditions relate to developmental outcomes or compare patterns across institutions. Third, quantitative and qualitative evidence have rarely been integrated in this setting. Statistical associations alone cannot explain how young people experience educational methods or staff relationships, while

qualitative accounts alone cannot indicate the relative strength of these factors. Addressing these gaps is important for Indonesian LPKA, which must balance custodial responsibilities with meaningful educational and rehabilitative opportunities but have limited empirical guidance on where institutional effort is most likely to matter.

Accordingly, this study examines character development in Indonesian juvenile correctional institutions through four factors representing three analytical levels: child involvement at the individual level; staff competence and role modelling at the relational level; and quality of character education methods and environmental and resource support at the institutional level. Using an explanatory sequential mixed-methods design, the study addresses three questions: (1) To what extent are individual, relational, and institutional factors associated with character development among juveniles in Indonesian correctional institutions? (2) What are the relative contributions of these factors when considered simultaneously? and (3) How do juveniles and institutional stakeholders explain the ways these factors shape character development? The study contributes to the literature in three ways: empirically, by estimating the concurrent associations of the four factors across three institutions rather than within a single site; methodologically, by using qualitative evidence to explain and qualify the statistical associations; and contextually, by extending social-ecological research on juvenile rehabilitation, which has been conducted mainly in Western settings, to Indonesian LPKA.

METHOD

This study employed an explanatory sequential mixed-methods design, in which quantitative analysis was followed by qualitative inquiry to explain and qualify the statistical findings (Clark & Ivankova, 2015; Cresswell, 2013). It forms part of a larger doctoral project examining seven factors related to character education in Indonesian juvenile correctional institutions (LPKA). Four factors were selected a priori because they correspond to the person, relational, and contextual components of Bronfenbrenner's bioecological model: child involvement (individual level), staff competence and role modelling (relational level), and quality of character education methods and environmental and resource support (institutional level). The remaining factors (program planning, implementation consistency, and evaluation) concern program management and are beyond the scope of this article.

The quantitative phase used total sampling of all juveniles residing in LPKA Bandung, Medan, and Payakumbuh during data collection, yielding 458 respondents (Bandung = 228; Medan = 183; Payakumbuh = 47), with site differences reflecting institutional population size. Respondents were aged 14–17 years and had sentences ranging from 1 to 10 years. The qualitative phase involved 44 purposively selected informants: 34 juveniles (Bandung = 12; Medan = 12; Payakumbuh = 12), seven educators (3; 2; 2), and three institutional heads. Juveniles were selected with the facilitation of institutional heads based on active participation in character education and the ability to communicate their experiences; educators were selected based on direct involvement in program delivery. The number of informants was proportional to each site's population and constrained by the interview time permitted. Because institutional heads facilitated selection, less engaged juveniles may have been underrepresented.

Data were collected using a researcher-developed questionnaire with a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Table 1 presents the operationalization of the variables. Content validity was established through review by a linguist and a child psychologist specializing in child protection. The instrument was piloted with 30 juveniles at one of the participating institutions who were released before the main data collection and were not included in the final sample; all items showed significant item–total correlations ($t = 2.34$–$22.44 > t\text{-table} = 1.701$, $df = 28$). Because two child-involvement items (application of values in daily life) overlapped conceptually with one dimension of the outcome, a sensitivity analysis excluding these items was conducted. Questionnaires were administered in groups, with staff present in accordance with institutional security regulations, a condition that may have encouraged socially desirable responding.

Table 1. Operationalization of Variables (N = 458)

Variable	Dimensions	Items	A
Child Involvement (X_1)	Active participation; motivation and enthusiasm; application of values in daily life	6	.829
Staff Competence and Role Modelling (X_2)	Guidance competence; role modelling; readiness to deliver character education	5	.816
Quality of Character Education Methods (X_3)	Alignment of methods with objectives; comprehensibility of materials and activities; learning activities (practice, habituation, discussion)	6	.825
Environmental and Resource Support (X_4)	Supportive institutional environment; facilities and infrastructure; availability of staff and resources	7	.858

Variable	Dimensions	Items	A
Character Development (Y)	Discipline; responsibility and honesty; cooperation; positive attitude and self-confidence; application of character values in daily life	9	.882

Quantitative data were analysed using descriptive statistics, Pearson correlations, and multiple linear regression ($Y = \beta_0 + \beta_{1X_1} + \beta_{2X_2} + \beta_{3X_3} + \beta_{4X_4} + \varepsilon$). Assumptions were examined through residual normality (Kolmogorov–Smirnov and Shapiro–Wilk), linearity (test for linearity), multicollinearity (tolerance and VIF), and homoscedasticity (Glejser and Breusch–Pagan tests), with HC3 robust standard errors as a robustness check (Long & Ervin, 2000). Differences between standardized coefficients were tested using pairwise Wald tests and an omnibus F-test, and institutional differences were examined by adding institution dummy variables. Because all measures were self-reported at a single time point, common method variance was assessed using Harman's single-factor test (Podsakoff et al., 2003) and discriminant validity using the heterotrait–monotrait ratio (Henseler et al., 2015) where (Y) represents character development; (X_1) child involvement; (X_2) staff competence and role modelling; (X_3) quality of character education methods; and (X_4) environmental and resource support.

Semi-structured interviews, developed from the quantitative findings, explored how participants experienced educational methods, staff guidance, participation, and institutional support, with particular attention to why juveniles differed in their engagement and how institutional conditions shaped program delivery. Interviews lasted approximately 30 minutes with juveniles and 60–120 minutes with educators and institutional heads, were audio-recorded, and were analysed using reflexive thematic analysis (Braun & Clarke, 2021), combining deductive codes derived from the four factors with inductive codes. Credibility was strengthened through source triangulation across juveniles, educators, and institutional heads and through member checking, in which preliminary interpretations were confirmed with selected informants. Integration occurred at two points: quantitative results informed the interview protocol, and both strands were compared in a joint display to identify where qualitative evidence confirmed, explained, or qualified the statistical associations. The study received ethical approval from the Research Ethics Committee of Universitas Pendidikan Indonesia and research permits from the Directorate General of Corrections and the relevant Regional Offices. Each juvenile provided audio-recorded verbal assent after being informed that participation was voluntary, could be withdrawn without consequences, and would remain confidential. Participants are identified by role-and-site codes (e.g., J-BDG-03, E-MDN-01, H-PYK); no names or initials are reported.

RESULTS

The results are presented according to the three research questions. The first two questions are addressed through the quantitative analysis of questionnaire data from 458 juveniles, beginning with descriptive statistics, assumption testing, and measurement checks, followed by the regression analysis and comparisons of the relative contributions of the predictors. The third question is addressed through the thematic analysis of interviews with 44 informants, and the two strands are integrated in a joint display.

RQ1: To What Extent Are Individual, Relational, and Institutional Factors Associated with Character Development among Juveniles in Indonesian Correctional Institutions?

To address the first research question, descriptive statistics, regression assumptions, and common method variance were examined before estimating the regression model. Table 2 presents descriptive statistics and correlations among the study variables. Mean item scores ranged from 3.49 (staff competence and role modelling) to 3.73 (child involvement), indicating moderately positive perceptions across all variables. All variables were strongly and positively correlated (r = .80–.87, p < .001).

Table 2. Descriptive Statistics and Correlations (N = 458)

Variable	M	SD	Range	1	2	3	4
Child Involvement	22.37	4.08	10–30	—			
Staff Competence And Role Modelling	17.44	3.44	8–25	.81	—		
Quality Of Character Education Methods	21.63	4.05	12–30	.82	.80	—	
Environmental And Resource Support	25.92	4.65	13–35	.83	.81	.83	—
Character Development	33.38	5.83	16–45	.86	.84	.87	.87

Note. All correlations p < .001.

Residuals were normally distributed (Kolmogorov–Smirnov D = .032, p > .200; Shapiro–Wilk W = .997, p = .613). All predictors showed linear relationships with character development (deviation from linearity p = .377–.918). Tolerance (.22–.26) and VIF values (3.88–4.49) indicated no problematic multicollinearity. The Glejser test indicated possible heteroskedasticity for quality of character education methods (p = .031), although the Breusch–Pagan test was not significant (p = .270); HC3 robust standard errors were therefore computed as a robustness check. Because all variables were self-reported by the same respondents, common method variance was assessed. Harman's single-factor test yielded only one factor with an eigenvalue greater than 1, accounting for 46.92% of the variance. Although this proportion is below 50%, the emergence of a single factor indicates substantial common method variance (Podsakoff et al., 2003). HTMT values for all construct pairs ranged from .97 to 1.02, exceeding the .90 threshold (Henseler et al., 2015), indicating that respondents did not clearly distinguish among the constructs.

The regression model was statistically significant, $F(4, 453) = 677.93$, $p < .001$, $R^2 = .857$, adjusted $R^2 = .856$ (Table 3). All four predictors were positively and significantly associated with character development after accounting for the others: child involvement (β = .253), staff competence and role modelling (β = .189), quality of character education methods (β = .291), and environmental and resource support (β = .262). All coefficients remained significant with HC3 robust standard errors (p < .001). In a sensitivity analysis excluding the two child-involvement items that overlapped with the outcome (α = .762), results were substantively unchanged ($R^2 = .855$; β = .199–.316; all p < .001). Given the common method variance identified above, the high R^2 is likely inflated by shared measurement and should be interpreted as associations among closely related perceptions rather than as the proportion of character development explained by four distinct factors.

Table 3. Multiple Regression Results for Character Development (N = 458)

Predictor	B	SE	95% CI	β	t	p	VIF
(Constant)	2.148	0.612	[0.944, 3.352]		3.51	< .001	
Child Involvement	0.361	0.052	[0.258, 0.464]	.253	6.88	< .001	4.28
Staff Competence And Role Modelling	0.321	0.059	[0.204, 0.437]	.189	5.41	< .001	3.88
Quality Of Character Education Methods	0.419	0.053	[0.315, 0.522]	.291	7.96	< .001	4.23
Environmental And Resource Support	0.328	0.047	[0.236, 0.421]	.262	6.95	< .001	4.49

Note. $R^2 = .857$; adjusted $R^2 = .856$; $F(4, 453) = 677.93$, $p < .001$. Results were unchanged using HC3 robust standard errors.

RQ2: What Are the Relative Contributions of These Factors When Considered Simultaneously?

To determine whether the factors differed in their relative contributions, the standardized coefficients were compared statistically, and the model was examined across institutions. Although standardized coefficients ranged from .189 to .291, pairwise Wald tests showed that none of the differences between coefficients was statistically significant (p = .072–.880), and an omnibus test did not reject the equality of all four coefficients, $F(3, 453) = 1.18$, p = .317. The data therefore do not support ranking the factors by strength; the four factors showed comparable associations with character development.

Adding institution dummy variables did not improve the model, $F(2, 451) = 0.01$, p = .989. However, separate models revealed different patterns across institutions (Table 4). In Bandung and Medan, all four predictors were significant with similar magnitudes. In Payakumbuh, child involvement showed the largest coefficient (β = .485), whereas staff competence and role modelling was not significant (β = −.091, p = .406), and staff scores varied less than at the other sites. Given the small sample (n = 47), these estimates should be interpreted cautiously.

Table 4. Standardized Coefficients by Institution

Predictor	Bandung (n = 228)	Medan (n = 183)	Payakumbuh (n = 47)
Child Involvement	.248***	.210***	.485***
Staff Competence and Role Modelling	.199***	.250***	−.091
Quality of Character Education Methods	.306***	.272***	.280*
Environmental And Resource Support	.237***	.270***	.281*
R^2	.855	.856	.808
Sd of Staff Scores	3.32	3.54	2.88

Note. *p < .05; ***p < .001.

Taken together, these results indicate that the four factors contributed comparably to character development in the pooled sample, but that their relative importance was not uniform across institutions. The divergent pattern in Payakumbuh, where staff competence and role modelling showed little variation and no significant association while child involvement showed the strongest association, suggests that the contribution of each factor may depend on institutional conditions.

RQ3: How Do Juveniles and Institutional Stakeholders Explain the Ways These Factors Shape Character Development?

The qualitative phase explored how participants experienced the four factors and offered explanations for the statistical patterns, including the divergent result in Payakumbuh. Thematic analysis generated four themes aligned with the four factors. Uneven and partly obligatory engagement. Educators and institutional heads described juveniles as generally enthusiastic but acknowledged that participation was compulsory and that responses varied. As one institutional head explained, "Some truly learn from their time here, but others take part simply because it is part of the programme they have to go through" (H-MDN). Juveniles' accounts revealed a more nuanced picture than staff reports. Although educators described all juveniles as actively participating (E-BDG-01), 15 of the 36 juveniles (five at each site) reported feeling bored, tired, unmotivated, or shy, while emphasizing that they continued to attend: "Sometimes it's boring, but I just go along. I usually keep doing it because it's already part of the activities" (J-MDN-08).

Staff as guides and models. Juveniles consistently described staff as patient, friendly, and firm, and as examples of courteous conduct. They valued staff who explained the reasons behind reprimands: "The staff are friendly. When they reprimand us, they explain why, so we understand the reasons for following the rules" (J-BDG-04). Institutional heads similarly described staff as moral guides, emotional companions, and role models (H-BDG; H-PYK). In Payakumbuh, the small population enabled closer and more individualized accompaniment: "Because there are not too many children, we can be closer and get to know them better. If we know the child, it is easier to understand their problems and give guidance" (H-PYK). Juveniles there described staff in uniformly positive terms: "The staff guide us patiently, so I feel more comfortable following their directions" (J-PYK-03).

Habituation and direct practice. Across sources, character education was described as being instilled through repeated routines and direct activities, such as religious practice, cleaning duties, scouting, and skills training, rather than through instruction alone. As one institutional head noted, "If it is only delivered as theory, the children will not necessarily put it into practice" (H-MDN). Educators described combining habituation with discussion and personal approaches (E-BDG-01; E-PYK-01), while juveniles described learning discipline through daily routines: "I learned discipline. Waking up early, cleaning, and having to join the activities. So I learned not to be lazy and to follow the rules" (J-BDG-01).

Institutional conditions enabling or constraining practice. Institutional heads described facilities as generally adequate but limited in some areas, and identified population size as a key condition. In Medan, the number of juveniles constrained individualized mentoring: "Because there are many children, and each needs different attention, group mentoring is easier to carry out" (H-MDN). All sites described family support and community acceptance as uneven and critical for sustaining change after release (H-MDN; H-PYK; E-BDG-01). Table 4 integrates the quantitative and qualitative findings.

Table 4. Joint Display of Quantitative and Qualitative Findings

Factor	Quantitative	Qualitative	Integration
Child Involvement	$\beta = .253$, $p < .001$	Participation compulsory; some juveniles bored but continued attending; staff described participation as uniformly active	**Diverges:** staff and juvenile accounts differ; involvement scores may partly reflect compliance rather than meaningful engagement
Staff Competence And Role Modelling	$\beta = .189$, $p < .001$; near zero in Payakumbuh, where staff scores varied least	Staff patient, firm, and explaining reprimands; small population in Payakumbuh enabled uniformly close accompaniment	**Explains and qualifies:** staff influence operates through daily interaction; where accompaniment is uniformly close, perceptions of staff vary little and the factor no longer differentiates juveniles
Quality Of Character Education Methods	$\beta = .291$, $p < .001$	Habituation, direct practice, discussion, and personal approaches; values applied rather than taught as theory	**Explains:** methods matter when they provide repeated opportunities to enact values
Environmental And Resource Support	$\beta = .262$, $p < .001$	Facilities adequate but limited; population size shaped individualized mentoring; family and community support uneven	**Contextualizes:** institutional conditions enable or constrain educational and relational processes, including continuity after release

DISCUSSION

Comparable Contributions within a Shared Evaluative Perception

Regarding the first and second research questions, this study found that child involvement, staff competence and role modelling, quality of character education methods, and environmental and resource support were all positively associated with character development, and that their contributions did not differ significantly. Rather than identifying a dominant factor, the findings suggest that juveniles evaluated their rehabilitation environment holistically.

Two explanations should be considered. First, the measurement checks indicated substantial common method variance and poor discriminant validity among constructs. Because questionnaires were completed in the presence of staff, juveniles may have responded in a socially desirable manner, rating all aspects of institutional life favourably (Podsakoff et al., 2003). The uniformly positive descriptions of staff in interviews across all three institutions support this interpretation. Second, the constructs may overlap conceptually: a juvenile who perceives educational activities as meaningful is also likely to perceive staff as supportive and to report personal change. The sensitivity analysis showed that removing overlapping items did not alter the results, but it cannot rule out broader conceptual overlap. The high explained variance should therefore be understood as reflecting a strongly integrated general perception rather than the independent effects of four distinct factors.

This interpretation is consistent with research showing that young people experience institutional climate as a whole rather than as separate components (Leipoldt et al., 2022; van Miert et al., 2022). It also qualifies the meta-analytic evidence that character education produces modest positive effects (Brown et al., 2023). Whereas intervention studies isolate program effects, the present findings indicate that, from juveniles' perspective, educational methods are inseparable from the relational and institutional conditions in which they are delivered. Evidence from correctional education and restorative justice programs similarly shows that the existence of an intervention does not guarantee uniform outcomes; effects vary with program quality and are often smaller in more rigorous designs (Bozick et al., 2018; Kimbrell et al., 2023). The present study cannot isolate the effect of any single program component, but it suggests that program quality in custody is experienced through the conditions surrounding it.

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What the Qualitative Evidence Adds

Addressing the third research question, the qualitative findings extend the quantitative results in three ways. First, they distinguish participation from engagement. Although staff described juveniles as uniformly active, many juveniles reported boredom or fatigue while continuing to attend because participation was compulsory, and an institutional head acknowledged that some juveniles take part merely because it is required. This divergence suggests that high involvement scores may partly reflect compliance, and that habituation should not be equated with internalization. This finding is particularly relevant in the Indonesian context, where character education in LPKA relies heavily on religious and routine-based habituation (Fatmasari et al., 2019; Sulistijaningsih et al., 2025). Routines can produce regular behaviour within the institution without necessarily producing commitment to the underlying values, consistent with longitudinal evidence that improvements in institutional climate do not uniformly translate into developmental gains (Heynen et al., 2024).

Second, the qualitative findings clarify how staff influence operates. Juveniles valued staff who were patient and who explained the reasons behind rules and reprimands. This aligns with evidence that rehabilitation occurs through everyday staff practices that clarify expectations and foster emotional safety (Sichel et al., 2019; Walden & Allen, 2019), and with research showing that staff's relational practices in youth custody are shaped by institutional conditions such as unit size and spatial design (Oostermeijer et al., 2022). Young people in youth justice settings consistently value being respected and understood by professionals (Moore et al., 2025), and relationships with staff can partly offset the isolation and separation from family that incarcerated youth experience (Erdem et al., 2024; Juliana et al., 2025). The present findings add that juveniles distinguish between staff who merely enforce rules and staff who make rules understandable.

Third, the qualitative evidence offers an explanation for the divergent pattern in Payakumbuh. The institutional head described the small population as enabling close, individualized accompaniment, and juveniles described staff in uniformly positive terms. When staff support is consistently high for all juveniles, perceptions of staff vary little and therefore cannot differentiate juveniles' outcomes, which is consistent with the smaller variance in staff scores and the non-significant coefficient. This pattern resonates with the concept of relational security, which depends on small-scale settings that allow constructive staff–youth relationships (Souverein, 2023). In this context, juveniles' own involvement emerged as the strongest correlate, echoing institutional heads'

view that outcomes depend on juveniles' own awareness. By contrast, in the larger institutions, where population size limited individualized mentoring, differences in staff support were more pronounced and remained significantly associated with character development. This interpretation is tentative given the small Payakumbuh sample, but it illustrates how mixed-methods integration can explain, rather than merely confirm, statistical patterns.

Theoretical Implications

The findings offer qualified support for applying Bronfenbrenner's bioecological model to juvenile correctional settings (Bronfenbrenner & Morris, 2007). Factors at the individual, relational, and institutional levels were all associated with character development, and the qualitative evidence showed that these levels interact: educational methods depend on the staff who deliver them, and staff influence depends on institutional conditions such as population size. This supports calls to integrate social-ecological perspectives into juvenile justice reform rather than relying on single-level interventions (April et al., 2023). However, because proximal processes were not measured directly and change over time was not examined, the study cannot test the full Process–Person–Context–Time model. The Payakumbuh case suggests a proposition for future testing: the contribution of relational factors may depend on contextual conditions, such that when relational support becomes uniformly available, individual engagement becomes the primary source of variation in developmental outcomes. This proposition aligns with ecological measurement frameworks that call for examining interactions across levels in juvenile justice research (Sheerin et al., 2023).

Practical Implications for LPKA

The findings suggest several operational recommendations. First, because participation alone does not ensure engagement, LPKA should complement compulsory routines with activities that give juveniles choice and responsibility, such as rotating leadership roles in group activities, and should hold brief reflection sessions after routine activities so that juveniles can discuss the purpose of the values being practised. Reviews of sport-based interventions in juvenile justice similarly identify participatory methods, relationship quality, and program continuity as conditions for positive outcomes (Irujo-Compains et al., 2026). Second, staff training should emphasize explaining the reasons behind rules and reprimands, a practice that juveniles identified as making guidance acceptable; training and coaching programs have been used to improve social climate in youth detention (Trotter et al., 2024). Third, larger institutions should consider structured small-group mentoring, assigning each staff member a consistent group of juveniles, to approximate the individualized accompaniment possible in smaller institutions. Fourth, program evaluation should move beyond attendance records and staff observation by incorporating juveniles' anonymous feedback and behavioural indicators, in line with calls for systematic evaluation of LPKA programs (Maulida et al., 2023). Finally, because all institutions identified post-release support as a weakness, LPKA should strengthen coordination with families and community supervision officers before juveniles are released (Purnamasari & Nurwidya, 2025; Shofiyuddin et al., 2022).

Limitations and Future Research

Several limitations should be acknowledged. First, all quantitative measures were self-reported, completed in the presence of staff, and collected at a single time point; the resulting common method variance and poor discriminant validity limit the extent to which the four factors can be interpreted as distinct, and the R^2 is likely inflated. Second, the outcome reflects juveniles' perceived character development rather than observed behaviour. Third, the cross-sectional design precludes causal inference and cannot capture change over time. Fourth, interview participants were selected with the facilitation of institutional heads, and interviews took place in a supervised setting, which may have favoured more engaged juveniles and socially desirable responses. Fifth, the small Payakumbuh sample limits the precision of site-specific estimates. Sixth, the environmental support measure included an indicator of staff availability, which partly overlaps with the staff competence construct. Future research should use multiple informants, such as staff ratings of behaviour, institutional records of rule violations, or observational measures, to reduce shared method variance. Longitudinal designs measuring character development at entry, during custody, and after release would allow examination of change and post-release continuity. Administering questionnaires without staff present would reduce socially desirable responding. Finally, multilevel studies across more institutions could formally test whether institutional characteristics, such as population size and staff–juvenile ratios, moderate the association between staff support and character development.

CONCLUSION

This study examined how individual, relational, and institutional factors are associated with character development among juveniles in three Indonesian juvenile correctional institutions. Empirically, child involvement, staff competence and role modelling, quality of character education methods, and environmental and resource support were all positively associated with character development, with comparable contributions in the pooled sample.

However, these associations were not uniform across institutions: in the smallest institution, where staff accompaniment was consistently close, staff competence was not significantly associated with character development, whereas child involvement showed the strongest association. The qualitative findings further showed that participation did not always reflect genuine engagement, as many juveniles continued to attend activities out of obligation despite boredom or fatigue.

Theoretically, the study contributes a context-specific application of the bioecological perspective to Indonesian juvenile corrections. It shows that the contribution of relational factors may depend on institutional conditions such as population size, and that habituation-based character education should be distinguished from the internalization of values. These propositions extend existing research, which has examined educational, relational, and institutional factors largely in isolation.

Practically, LPKA should complement compulsory routines with participatory activities and structured reflection, train staff to explain the reasons behind rules and reprimands, introduce consistent small-group mentoring in larger institutions, include juveniles' perspectives in program evaluation, and strengthen coordination with families before release.

These conclusions should be interpreted in light of the study's limitations. All quantitative measures were self-reported, completed in the presence of staff, and collected at a single time point, resulting in substantial common method variance; the findings therefore reflect associations among juveniles' perceptions rather than independent or causal effects. Interview participants were selected with the facilitation of institutional heads, and the smallest institution provided a limited sample. Future research should combine self-reports with staff ratings, institutional records, or observation, collect data without staff present, follow juveniles longitudinally through release, and test whether institutional characteristics moderate the role of staff support across a larger number of institutions.

REFERENCE

April, K., Schrader, S. W., Walker, T. E., Francis, R. M., Glynn, H., & Gordon, D. M. (2023). Conceptualizing juvenile justice reform: Integrating the public health, social ecological, and restorative justice models. *Children and Youth Services Review*, *148*, 106887. https://doi.org/10.1016/j.childyouth.2023.106887

Berkowitz, M. W., & Bier, M. C. (2007). What works in character education. *Journal of Research in Character Education*, *5*(1), 29–48. https://doi.org/10.1108/CE-02-2007-0002

Bozick, R., Steele, J., Davis, L. M., & Turner, S. (2018). Does providing inmates with education improve postrelease outcomes? A meta-analysis of correctional education programs in the United States. *Journal of Experimental Criminology*, *14*, 389–428. https://doi.org/10.1007/s11292-018-9334-6

Braun, V., & Clarke, V. (2021). Thematic Analysis: A Practical Guide. In *SAGE Publications*. https://uk.sagepub.com/en-gb/eur/thematic-analysis/book248481

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press. https://www.hup.harvard.edu/books/9780674224575

Bronfenbrenner, U., & Morris, P. A. (2007). The bioecological model of human development. In *Handbook of Child Psychology*. https://doi.org/10.1002/9780470147658.chpsy0114

Brown, M., McGrath, R. E., Bier, M. C., Johnson, K., & Berkowitz, M. W. (2023). A comprehensive meta-analysis of character education programs. *Journal of Moral Education*, *52*(2), 119–138. https://doi.org/10.1080/03057240.2022.2060196

Brubaker, S. J., & Cleary, H. M. D. (2023). Connection and caring through a therapeutic juvenile corrections model: Staff and youth resident perceptions of structural and interpersonal dimensions. *International Journal of Offender Therapy and Comparative Criminology*. https://doi.org/10.1177/0306624X211065586

Clark, V. L. P., & Ivankova, N. V. (2015). *Mixed methods research: A guide to the field* (Vol. 3). Sage publications.

Cresswell, J. (2013). *Qualitative inquiry & research design: Choosing among five approaches.*

Erdem, G., Yücesoy, Z. B., & Ersayan, A. E. (2024). Daily experiences and close relationships incarcerated youth: Perspectives of inmates and prison staff. *Children and Youth Services Review*, 107286. https://doi.org/10.1016/j.childyouth.2023.107286

Fatmasari, R., Susanti, V., Budi, U. L., & Mardiana, A. (2019). Implementation of character education model in Lembaga Pembinaan Khusus Anak Indonesia. In *Proceedings of the 33rd Annual Conference of the Asian Association of Open Universities: Open distance learning: 2020 and beyond* (pp. 649–653). Virtual University of Pakistan. http://aaou2019.vu.edu.pk

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Heynen, E., Pat-El, R., Gobbi, P., Junte, M., & van Helm, P. (2024). Most of them care about us, but not everyone does! Creating a positive living group climate in German youth prison—a longitudinal study. *Children and*

Youth Services Review, *164*, 107826. https://doi.org/10.1016/j.childyouth.2024.107826

Irujo-Compains, E., Encina-Morentin, J., & Gutiérrez-de-Rozas, B. (2026). From judicial compliance to social inclusion: A systematic review of the effects of sport in juvenile justice. *Children and Youth Services Review*, *187*, 109056. https://doi.org/10.1016/j.childyouth.2026.109056

Jacob, J., D'Souza, S., Lane, R., Cracknell, L., Singleton, R., & Edbrooke-Childs, J. (2024). I'm not just some criminal, I'm actually a person to them now: The importance of child-staff therapeutic relationships in the children and young people secure estate. *International Journal Of Forensic Mental Health* 2024, VOL. 23, NO. 1, 24–3 https://doi.org/10.1080/14999013.2023.2167893

Juliana, J., Hutagalung, F. D., & Mohamad Nor, A. (2025). How detainment reshapes the interpersonal relationships of Indonesian incarcerated youth: A qualitative study. *The Prison Journal*, *105*(6), 807–829. https://doi.org/10.1177/00328855251388964

Kimbrell, C. S., Wilson, D. B., & Olaghere, A. (2023). Restorative justice programs and practices in juvenile justice: An updated systematic review and meta-analysis for effectiveness. *Criminology & Public Policy*, *22*(1), 161–195. https://doi.org/10.1111/1745-9133.12613

Leipoldt, J. D., Harder, A. T., Kayed, N. S., Knorth, E. J., & Rimehaug, T. (2022). The mediating role of social climate in the association of youth and residential service characteristics and quality of life. *American Journal of Orthopsychiatry*, *92*(2), 203–216. https://doi.org/10.1037/ort0000598

Long, J. S., & Ervin, L. H. (2000). The Importance Of Children Correctional Institution Program Evaluation: An Effort To Fulfill Children's Rights. *EMPATI: Jurnal Ilmu Kesejahteraan Sosial*, *12*(2), 13-20.

Moore, K., Ahern, E., O'Meara Daly, E., Houghton, S., McAuliffe, H., & Rogers, E. (2025). Youth justice services: Relationships, rehabilitation and the reality of the young people involved—a meta-synthesis of the qualitative literature. *Clinical Child and Family Psychology Review*, *28*, 631–649. https://doi.org/10.1007/s10567-025-00534-6

Oostermeijer, S., Dwyer, M., & Tongun, P. (2022). Relational security: The impact of facility design on youth custodial staffs' practices and approaches. *Criminal Behaviour and Mental Health*, *32*(3), 227–237. https://doi.org/10.1002/cbm.2241

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Purnamasari, C. D., & Nurwidya, R. (2025). Optimalisasi pemenuhan hak pendidikan dan pembinaan karakter anak berkonflik dengan hukum: Studi kasus LPKA Kelas II Bandar Lampung. *Journal of Social Humanities and Education: Scripta Humanika*, *1*(1), 30–38. https://garuda.kemdiktisaintek.go.id/documents/detail/5816873

Sheerin, K. M., Brodell, R., Huey, S. J., & Kemp, K. A. (2023). Applying ecological systems theory to juvenile legal system interventions outcomes research: A measurement framework. *Frontiers in Psychology*, *14*, 1177568. https://doi.org/10.3389/fpsyg.2023.1177568

Shofiyuddin, M., Yuliatin, Y., Alqadri, B., & Rispawati, R. (2022). Implementasi program pembinaan kepribadian untuk anak didik pemasyarakatan: Studi di Lembaga Pembinaan Khusus Anak Kelas II Lombok Tengah. *MANAZHIM*, *4*(2), 397–410. https://doi.org/10.36088/manazhim.v4i2.1878

Sichel, C. E., Burson, E., Javdani, S., & Godfrey, E. B. (2019). Theorizing safety informed settings: Supporting staff at youth residential facilities. *American Journal of Community Psychology*, *63*(3–4), 405–417.

Souverein, F. (2023). Relational security: Conceptualization and operationalization in small-scale, strengths-based, community-embedded youth justice facilities. *Child and Adolescent Psychiatry and Mental Health*, *17*, 99. https://doi.org/10.1186/s13034-023-00638-3

Sulistijaningsih, S., Nurdin, E. S., Nurihsan, J., & Sabri, M. (2025). Habituation-based religious character education grounded in Pancasila: Evidence from a juvenile correctional setting in Indonesia. *Pancasila: Jurnal Keindonesiaan*, *5*(2), 276–287. https://doi.org/10.52738/pjk.v5i2.795

Trotter, C., Evans, P., & Powers, T. (2024). Improving social climate in youth detention. *International Journal of Offender Therapy and Comparative Criminology*, *68*(4), 353–369. https://doi.org/10.1177/0306624X221102852

van Miert, V. S. L., Dekker, A. L., van der Helm, P., & Robinson, M. (2022). Young people's perception of group climate in juvenile justice centers in an Australian state, a pilot study. *International Journal of Offender Therapy and Comparative Criminology*, *66*(8), 856–875. https://doi.org/10.1177/0306624X211022664

Walden, A. L., & Allen, N. E. (2019). Examining correctional staff members' engagement in rehabilitation as part of their everyday practices in short-term juvenile detention. *American Journal of Community Psychology*, *64*(3–4), 310–320. https://doi.org/10.1002/ajcp.12369

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AUTHOR CONTRIBUTION STATEMENT

RN contributed to conceptualization, investigation, data collection, formal analysis, and manuscript drafting. PB contributed to supervision, methodological guidance, interpretation of findings, and critical revision of the manuscript. DS contributed to theoretical development, methodological review, and manuscript revision. IS contributed to the review of the research design, interpretation of findings, and critical feedback on the manuscript. KK contributed to the theoretical framework, academic review, and revision of the manuscript. S contributed to supervision, validation of the research approach, and critical revision of the manuscript. All authors reviewed and approved the final version of the manuscript.

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The authors used ChatGPT (OpenAI) during the preparation of this manuscript to assist with academic language refinement, manuscript organization, and revision of the text. The authors reviewed and edited the generated content, verified the relevant references and interpretations, and take full responsibility for the accuracy and integrity of the published work.

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