



The Implementation of the School Zoning Policy on Equitable Access to Education in Urban Areas

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Abstract

Purpose – This study examined how the school zoning policy shaped equitable access to urban public education, with attention to geographical proximity, school capacity, administrative procedures, educational quality, stakeholder responses, and perceived fairness.

Methodology – An interpretive qualitative approach and embedded single-case study design were used. Data were generated from 27 informants in three public junior high schools in Surabaya between February and July 2026 through semi-structured interviews, non-participant observations, and document analysis. Reflexive thematic analysis was supported by triangulation, member reflection, peer debriefing, and an audit trail.

Findings – Five themes emerged: proximity provided practical but incomplete access; school capacity did not match demand; digital admission increased transparency but created administrative barriers; family strategies reflected unequal resources and trust; and student diversity increased faster than institutional readiness.

Implications – Local governments should combine zoning with demographic mapping, capacity planning, teacher redistribution, infrastructure improvement, digital assistance, and support for heterogeneous classrooms.

Originality – The study connects policy implementation with distributive and spatial justice by defining equitable access through geographical, administrative, institutional, and educational dimensions.

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Introduction

Rapid urban growth has increased the complexity of providing equitable access to quality education. Residential development often progresses faster than the construction of public schools, transportation networks, and supporting educational infrastructure. Consequently, the availability of schools does not always correspond with the spatial distribution of school-age populations. A geographical-accessibility study in Qatar found that school distribution, road connectivity, and population concentration created different levels of access across urban districts (Abulibdeh et al., 2024). High-resolution evidence from African cities also shows that children in peripheral settlements face longer travel distances and fewer educational facilities than children in central areas (Jaramillo-Araujo & Hall, 2026). Research in Sokoto Metropolis identified comparable differences in the accessibility of public secondary schools across urban neighbourhoods (Lawal & Abdullahi, 2025). These findings show that equitable education requires a spatial distribution of educational services that corresponds with demographic needs and urban development.

Educational inequality in cities also reflects differences in school capacity, infrastructure, learning conditions, and teacher availability. A spatial analysis of urban schools found that overcrowding and double-shift systems emerged when the distribution of facilities did not correspond with student populations (Zangana et al., 2024). Geographic-accessibility research in

Türkiye similarly demonstrated that road structure and settlement patterns shaped students' practical access to public schools (Deniz, 2024). School-location evaluation must therefore integrate spatial planning, population projections, transportation, and institutional capacity instead of relying only on administrative boundaries (Xu et al., 2024). These structural conditions determine whether students can reach a school safely, enrol without excessive competition, and receive adequate educational services.

The Indonesian government introduced the school zoning policy to address persistent inequalities between preferred and non-preferred public schools. The policy prioritised the distance between a student's registered residence and the school rather than relying primarily on academic examination results. Its objectives included reducing excessive competition for particular schools, shortening travel distances, and distributing students more evenly. Evidence from junior high schools indicates that zoning may expand access for students who live near public schools but have limited academic or economic advantages (Susanto et al., 2024). Public controversy nevertheless developed because parents often perceived geographical restrictions as a reduction in their freedom to select schools (Ariska et al., 2024). A local implementation study further showed that uneven facilities and persistent school reputations continued to shape parental acceptance of the policy (Sidik, 2024).

The implementation of zoning has produced mixed outcomes. Recent evidence suggests that the policy opened access for some students from economically disadvantaged families, particularly those living near public schools with strong reputations (Adinda, 2025). However, the policy did not eliminate differences in teacher quality, digital facilities, laboratories, extracurricular programmes, and school leadership. Research on urban zoning found that unequal institutional resources continued to generate dissatisfaction even after admission opportunities became more geographically distributed (Ningtyas et al., 2025). A recent policy evaluation concluded that zoning improved geographical accessibility without ensuring comparable learning quality among schools (Ningsih et al., 2026). These findings distinguish access to enrolment from access to quality education.

International research confirms that school-attendance boundaries can either reduce or reproduce segregation. A systematic review of school rezoning found that boundary changes involved political negotiation, community interests, institutional capacity, and local demographic conditions (Castro et al., 2024). Computational research demonstrated that policymakers could redesign school boundaries to reduce socioeconomic segregation while controlling travel time and enrolment capacity (Guan et al., 2025). A spatial-optimisation study also found that attendance boundaries could improve diversity when planners balanced community integrity, school capacity, and distance (Wei et al., 2025). These studies demonstrate that zoning boundaries influence which social groups meet within schools, how resources are distributed, and which families gain access to desirable educational institutions.

School-choice behaviour further complicates zoning implementation. Families do not possess equal financial, informational, and social resources when responding to admission policies. Market-oriented school systems tend to advantage families that can relocate, access private transportation, interpret admission procedures, or mobilise influential social networks (Yoon, 2024). Comparative evidence from Australia and Canada shows that marketisation can intensify institutional differentiation when schools compete for students and families compete for preferred schools (Perry et al., 2026). Admission reform in China further demonstrates that school preferences interact with residential choices and perceived differences in educational outcomes (Xue et al., 2025). In Indonesia, these mechanisms may appear through address changes, domicile manipulation, appeals, and strategic school selection.

Previous studies have documented spatial inequality, administrative problems, school-capacity disparities, and public controversy. However, many have relied on policy reviews, statistical indicators, or geographical mapping. These approaches provide limited explanations of how education officials, school administrators, teachers, parents, and students interpret zoning

during implementation. The principle of justice as fairness requires an assessment of whether public policy provides meaningful benefits to groups facing the greatest educational disadvantages (Latifah et al., 2024). The distinction between education as a social right and education as a competitive commodity also shapes public responses to zoning (Suyata, 2024). This study therefore aimed to analyse how the school zoning policy was implemented and experienced in an urban educational setting. It focused on geographical access, admission procedures, institutional capacity, school quality, stakeholder interaction, and perceptions of fairness.

Literature Review

School Zoning as an Educational Policy

School zoning links admission priority to the geographical relationship between a student's residence and a public school. The government divides an area into catchment zones and allocates places according to domicile, distance, and the capacity of available schools. In Indonesia, this arrangement was designed to weaken the distinction between preferred and non-preferred schools and reduce the concentration of high-achieving students in a small number of institutions. The policy therefore changed admission from a predominantly academic selection process into a territorially organised public service.

The policy reflects an attempt to redistribute educational opportunities, but it also changes established expectations about merit and parental choice. Putri et al. (2024) found that controversy developed because parents questioned whether distance should outweigh academic performance and individual preference. The debate shows that zoning changes not only administrative procedures but also public beliefs concerning deservingness, achievement, and educational success.

Implementation has also produced administrative deviations. Sutanto (2024) identified address falsification, document manipulation, weak supervision, and inadequate policy communication as recurring problems. A recent review concluded that effective zoning requires transparent digital systems, reliable residence verification, periodic evaluation, and simultaneous improvement in school quality (Lakoro et al., 2025). These findings suggest that non-compliance must be interpreted within the wider context of competition for unequal schools.

Educational Equity, Distributive Justice, and Spatial Justice

Educational equality and educational equity represent different policy goals. Equality applies the same rules or services to all students, whereas equity recognises that students encounter different geographical, economic, social, and institutional barriers. A uniform distance requirement may appear equal but produce inequitable outcomes when school quality varies substantially across zones. Students who live near well-resourced schools receive greater benefits than those whose closest schools lack teachers, facilities, or learning programmes.

Distributive justice focuses on how governments allocate educational resources and opportunities. Under this perspective, redistribution of students must occur alongside redistribution of qualified teachers, infrastructure, funding, and academic programmes. A policy that moves students without strengthening schools may transfer inequality from the admission stage to the learning stage. The evidence presented by Adinda (2025) supports this distinction because expanded admission opportunities coexisted with structural differences between schools.

Spatial justice examines where public resources are located and how residential patterns shape access. Urban development often concentrates high-quality facilities in established or affluent neighbourhoods. A school-mapping study in Cianjur found that junior high school

distribution did not fully correspond with population needs ([Ruhimat et al., 2024](#)). Research in Subang similarly showed that decisions concerning new schools should use demographic projections, service-area analysis, and travel accessibility ([Lesnawati et al., 2025](#)).

School Boundaries, Residential Segregation, and Student Diversity

School boundaries influence the demographic and socioeconomic composition of educational institutions. When neighbourhoods are socially segregated, a proximity-based policy can reproduce that segregation inside schools. Affluent areas may contain schools with stronger facilities and higher levels of parental support, while lower-income areas may contain schools with fewer resources and more complex learning needs. The boundary therefore links residential inequality with educational inequality.

Research on school vouchers indicates that student sorting and institutional selection can preserve segregation even when families formally receive greater choice ([Gazmuri, 2024](#)). This evidence suggests that neither unrestricted choice nor rigid zoning automatically guarantees integration. Policymakers must consider how admission rules interact with housing, transportation, institutional reputation, and school behaviour.

Zoning may also change the form of diversity. [Hendrik et al. \(2024\)](#) found that the Indonesian policy reduced the dominance of academic selection but did not eliminate religious and local demographic patterns in school composition. A related review warned that students in disadvantaged neighbourhoods might remain tied to institutions with limited capacity, thereby creating a new form of spatially organised inequality ([Setianingsih et al., 2025](#)).

Urban Accessibility and School Capacity

Urban educational access includes physical distance, travel safety, transportation availability, institutional capacity, administrative information, and the ability to navigate registration systems. A densely populated zone may produce more applicants than a school can accommodate, while a neighbouring zone may contain unused capacity. This mismatch can generate rejected applicants, overcrowding, and public dissatisfaction even when the zoning map appears administratively coherent.

[Hardiansyah et al. \(2025\)](#) found that differences between school capacity and the number of potential applicants complicated student distribution in Mataram. The evidence indicates that zoning boundaries cannot remain separate from institutional capacity and demographic change. Governments require updated enrolment data, school-age population projections, road-network information, and repeated boundary evaluation.

Policy Implementation and Administrative Capacity

Policy implementation converts formal rules into local boundaries, quotas, verification practices, digital procedures, and complaint mechanisms. Local education authorities must interpret national provisions according to population density, school distribution, and administrative capacity. Schools then apply these provisions under time pressure while parents and students attempt to understand multiple admission routes.

The transition to the 2025 New Student Admission System required local adaptation. [Rusmini and Ristanto \(2025\)](#) identified domicile manipulation, unequal school capacity, limited public knowledge, and persistent quality differences as central challenges. Their recommendations included population-based boundary adjustment, geotagging, and stronger affirmative

mechanisms. Technology can improve verification, but it cannot substitute for institutional equality or clear communication.

Family Strategies, Experiential Knowledge, and Policy Legitimacy

Parents interpret schools through academic reputation, facilities, safety, discipline, peer composition, religious orientation, extracurricular activities, and graduate outcomes. They also gather information from relatives, neighbours, teachers, alumni, and social media. Families with stronger economic and social resources can prepare more alternatives and respond more quickly to changes in the admission process.

School choice develops through accumulated interactions and previous institutional experiences rather than through a single calculation. Szabo and Rhodes (2025) showed that experiential knowledge shaped how families interpreted available schools over time. This perspective supports a qualitative examination of zoning because registration statistics cannot explain why parents accept, resist, or circumvent particular rules.

Policy legitimacy depends on whether stakeholders regard procedures and outcomes as fair. Families may accept an undesired result when rules are transparent and consistently applied. Distrust increases when boundaries change without explanation, complaint mechanisms appear unresponsive, or school-quality differences remain substantial.

Research Methods

This study used an interpretive qualitative approach with an embedded single-case study design. The case was the implementation of the school zoning and domicile-based admission policy in public junior high schools in Surabaya, Indonesia. Case study research was appropriate because the study examined a contemporary policy process within its institutional, social, and spatial setting. Mtisi (2022) explains that qualitative case study enables a detailed examination of how actors interpret and respond to context-dependent problems. The embedded units consisted of three public junior high schools located in central, eastern, and northern Surabaya. They were coded as School A, School B, and School C to maintain institutional confidentiality. The schools represented differences in population density, public reputation, admission demand, capacity, and neighbourhood socioeconomic characteristics. Fieldwork took place from February to July 2026 and covered policy preparation, public communication, registration, residence verification, selection, complaint handling, and initial student placement.

The study involved 27 informants selected through maximum-variation purposive sampling. They consisted of three local education officials, three principals, three admission committee members or digital-system operators, six teachers, six parents or guardians, and six students. Purposive sampling enabled the selection of participants with direct experience of policy design, implementation, or receipt (Ahmad & Wilkins, 2025). Officials and school personnel had participated directly in the 2025/2026 or 2026/2027 admission process and had at least one year of experience in their roles. Parents and students had used the zoning or domicile route, lived near a zone boundary, encountered capacity restrictions, submitted an objection, or selected a school that differed from their original preference. Limited snowball sampling identified people with specialised knowledge of complaint resolution and residence verification. Recruitment ended when the interviews provided sufficient information power and no materially different categories emerged. This decision was consistent with the empirical synthesis of saturation reported by

[Hennink and Kaiser \(2022\)](#). The sampling logic also followed recent guidance that links qualitative participant selection to relevance, diversity, and depth of information ([Andriani et al., 2025](#)).

Data were generated through semi-structured interviews, non-participant observation, and document analysis. Adult interviews lasted approximately 45 to 75 minutes, while student interviews lasted approximately 30 to 45 minutes. The interview guide addressed policy understanding, zoning boundaries, admission procedures, school capacity, educational quality, access barriers, digital registration, administrative verification, stakeholder coordination, and perceived fairness. [Rana et al. \(2023\)](#) emphasise that qualitative interviewing is suitable for examining interpretations and contextual experiences that administrative records cannot capture. With consent, interviews were audio-recorded and transcribed verbatim. The researcher also completed 12 non-participant observation sessions at admission service desks, document-verification activities, parent consultation services, and coordination meetings. Documentary materials included local guidelines, zoning maps, school quotas, capacity records, public announcements, meeting minutes, anonymised complaint records, and aggregated admission reports. The combination of interviews, observations, and documents followed the complementary data-generation logic described by [Chand \(2025\)](#).

Trustworthiness was developed through source triangulation, method triangulation, member reflection, peer debriefing, reflexive documentation, and an audit trail. Source triangulation compared the accounts of officials, principals, admission personnel, teachers, parents, and students. Method triangulation examined whether interview statements corresponded with observation notes and documentary evidence. [Ahmed \(2024\)](#) identifies credibility, transferability, dependability, and confirmability as the central dimensions of trustworthy qualitative inquiry. Preliminary summaries were returned to 10 key informants representing all participant groups so that they could correct factual inaccuracies and clarify ambiguous interpretations. Member reflection was treated as a dialogic process rather than a simple test of objective truth, following the caution provided by [Lloyd et al. \(2024\)](#). The audit trail contained recruitment records, interview guides, field notes, document logs, coding decisions, theme revisions, and reflexive memos. This documentation supported procedural transparency in accordance with [Adler \(2022\)](#). All participants provided informed consent. Parents or guardians authorised student participation, and students provided assent. Names, addresses, school identifiers, and personally identifiable admission records were removed from the dataset.

The data were analysed through reflexive thematic analysis using combined deductive and inductive coding. Deductive codes reflected policy communication, school capacity, resources, administrative discretion, spatial access, stakeholder responses, educational quality, and perceived fairness. Inductive codes captured unanticipated meanings and strategies emerging from the data. Reflexive thematic analysis was selected because it supports theoretically coherent interpretation of patterned meaning across qualitative materials ([Braun & Clarke, 2021](#)). The analysis followed six recursive phases: familiarisation, initial coding, candidate-theme development, theme review, theme definition, and analytical writing. Conceptual consistency was maintained by distinguishing topics, codes, patterns, and fully developed themes, as recommended by [Braun and Clarke \(2022\)](#). The transition from descriptive codes to interpretive themes was informed by the worked process presented by [Byrne \(2022\)](#). Each school was examined separately before cross-case comparison identified similarities, differences, negative cases, and contextual explanations. Qualitative software supported data organisation and retrieval, while the researcher retained responsibility for interpretation.

Results and Discussion

The analysis generated five interrelated themes: geographical proximity as partial access, mismatch between school capacity and population demand, digitalisation and administrative inequality, family strategies and policy legitimacy, and student diversity without equal institutional readiness. Together, the themes show that zoning improved several procedural dimensions of admission but did not automatically provide equal access to comparable educational quality. Differences in institutional capacity, neighbourhood characteristics, family resources, and digital ability continued to shape policy outcomes.

Geographical Proximity Provided Practical but Incomplete Access

Parents and students generally regarded shorter travel distance as a major advantage. Students who attended schools near their homes required less travel time and lower daily transportation expenditure. Parents also felt more secure because their children did not need to cross congested urban routes or change public transportation several times.

“Before the admission result was announced, I worried that my child would have to travel far every morning. After being accepted here, the journey takes only about ten minutes by motorcycle. We spend less on transport, and I can reach the school quickly when there is a meeting.”

(Composite parent account, School A)

Students associated proximity with reduced fatigue and greater participation in school activities. One composite student account indicated that shorter journeys created more time for group assignments and extracurricular involvement.

“My first plan was to apply to a school farther from home because people considered it better. Now I study near my house. I do not feel tired from travelling, and I can stay after school for group assignments without worrying about returning home too late.”

(Composite student account, School A)

However, parents distinguished between the nearest school and the school they considered most educationally appropriate. They compared institutions according to teacher quality, facilities, discipline, safety, extracurricular programmes, and graduate outcomes. This pattern supports the distinction between procedural and substantive access. Zoning expanded the opportunity to enrol near the home, but it did not ensure equal institutional quality. The result is consistent with [Adinda \(2025\)](#), who found that wider access coexisted with persistent structural disparities.

School Capacity Did Not Match Population Distribution

Schools located in densely populated neighbourhoods received more applications than their available quotas, while several less preferred schools had unused places. This imbalance created uncertainty because residence within a zone did not guarantee admission when many eligible applicants lived even closer to the school.

“Many parents assume that living close to the school guarantees acceptance. In reality, the number of children within the zone is larger than the number of seats. We have to follow the ranking and distance calculation, even when a rejected applicant lives relatively near the school.”

(Composite admission committee account, School B)

“Our house is close to the school, but many other applicants are even closer. We entered the zone, but that did not mean we were safe. Every day we monitored the ranking because a difference of a few hundred metres could change the result.”

(Composite parent account, School B)

The mismatch reflected housing expansion and population mobility that developed more rapidly than school construction and capacity adjustment. [Hardiansyah et al. \(2025\)](#) reported a similar imbalance between local demand and institutional capacity. The finding also reinforces the argument that school mapping must combine current population data, travel routes, and projected enrolment demand.

Digital Admission Improved Transparency but Created Administrative Barriers

Education officials and school personnel regarded the online admission system as an important transparency mechanism. The platform recorded applicant data, calculated distance, displayed ranking changes, and reduced opportunities for direct intervention. However, families did not experience the system equally because digital literacy, device availability, internet access, and administrative knowledge varied.

“The online system makes every stage more visible. Parents can check the ranking, and the system records the documents that have been submitted. It reduces informal requests because the selection process follows data and predetermined criteria.”

(Composite education official account)

“I could open the registration page, but I did not understand how to confirm the location and upload the correct document. I was afraid that one mistake would cancel the application. I finally came to the school and asked the operator to help me.”

(Composite parent account, School C)

Admission-service observations showed that parents frequently requested assistance with account creation, file formats, domicile data, map coordinates, quota categories, and objections. Digitalisation therefore improved standardisation but also created administrative inequality. The finding supports the recommendation by [Rusmini and Ristanto \(2025\)](#) that technical verification must be accompanied by accessible assistance and transparent complaint procedures.

Family Strategies Reflected Unequal Resources and Institutional Trust

Parents actively collected information, compared schools, monitored rankings, visited service centres, and prepared alternative routes. Families with greater financial resources could consider private schools, transportation to distant schools, tutoring, or changes of residence. Families with stronger social networks obtained earlier information and understood complaint procedures more effectively.

“We prepared three options. The first was the nearby public school through the domicile route. The second was an achievement route at another school. The third was a private school. We could not depend on one option because the ranking changed every day.”

(Composite parent account, School B)

“Some parents already knew which documents to prepare and when to monitor the ranking. I only understood the process after asking the school. Families who have more information can make decisions earlier.”

(Composite parent account, School C)

The unequal ability to respond demonstrates that identical rules do not produce identical capabilities. This result supports Yoon’s (2024) argument that school choice is shaped by unequal economic and informational resources. Domicile manipulation also appeared as a symptom of limited trust in the quality of assigned schools rather than as a purely technical problem.

“Parents will continue looking for ways to enter certain schools as long as they believe that the quality gap is large. Verification must be strict, but the government must also address why families are willing to take that risk.”

(Composite principal account, School B)

Student Diversity Increased Faster Than Institutional Readiness

Teachers observed wider differences in academic preparation, learning pace, behaviour, and family support after domicile-based admission. They generally accepted diversity as part of the public-school mandate, but heterogeneous classrooms required additional instructional preparation, diagnostic assessment, remedial learning, counselling, and communication with families.

“The students now come with very different levels of readiness. Some understand the material quickly, while others need repeated explanations and basic reinforcement. The challenge is ensuring that advanced students continue to develop without leaving other students behind.”

(Composite teacher account, School A)

“A public school should not only receive students who are already strong. Our responsibility is to help every admitted student progress. However, this requires teacher development, counselling, remedial programmes, and sufficient staff.”

(Composite principal account, School C)

The result supports [Hendrik et al. \(2024\)](#), who found that zoning reduced the dominance of academic selection and changed student diversity. It also explains why accessibility does not immediately produce quality equity. Schools received more heterogeneous learners, while staffing, professional development, and learning-support systems did not always change at the same pace.

“My classmates live in the same general area, but our previous schools and learning experiences are different. Group work helps us know each other, although sometimes the teacher needs more time because not everyone understands the lesson at the same speed.”

(Composite student account, School B)

Integrated Interpretation and Implications

The five themes formed an interconnected policy system. Unequal school quality influenced parental preferences, which increased pressure on high-demand schools. Capacity shortages weakened the promise of proximity, while digital registration favoured families with stronger administrative resources. Greater student diversity increased instructional demands, but school resources remained unequal. Zoning therefore interacted with pre-existing urban inequalities rather than operating on a neutral social landscape.

The findings strengthen the spatial-justice perspective because educational opportunity depended on where students lived and which resources were located near them. They also support distributive justice because fair implementation required targeted allocation of teachers, facilities, counselling, remedial support, and administrative assistance. Equal funding for schools with unequal needs would preserve rather than reduce disadvantage.

The study extends policy-implementation theory by showing that officials, school personnel, parents, and students actively translated and negotiated zoning. Local governments should review boundaries using updated demographic and transport data, reduce quality disparities through targeted investment, retain direct digital-assistance services, and prepare schools for heterogeneous classrooms. Future research should compare several cities, follow students longitudinally, and combine qualitative evidence with geographic, capacity, and outcome data.

Conclusion

This study concludes that the school zoning policy improved several procedural dimensions of educational access in Surabaya. It shortened travel distances, reduced transportation burdens, expanded opportunities for nearby residents, and increased transparency through digital admission.

However, geographical proximity did not automatically produce equitable access to quality education because students entered schools with unequal institutional capacity, teacher availability, facilities, academic programmes, and public reputations. The policy therefore achieved stronger progress in procedural equity than in substantive educational equity.

Five connected conditions shaped implementation: mismatch between school capacity and population demand, unequal digital and administrative capabilities, differences in household information and financial resources, persistent competition for preferred schools, and limited institutional readiness for more diverse student populations. Zoning cannot function effectively as an isolated admission mechanism. Its outcomes depend on urban planning, school distribution, demographic change, administrative transparency, and equalisation of educational quality.

Local governments should review boundaries regularly using updated population, housing, transport, and capacity data. They should direct additional funding, qualified teachers, counselling services, remedial programmes, and infrastructure to schools serving densely populated or disadvantaged communities. Digital admission should remain transparent while providing direct support for families with limited digital literacy. Future research should compare multiple cities and follow students over time to examine academic progress, social integration, parental trust, and institutional change.

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Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

“During the preparation of this manuscript, the authors used Claude AI to support language refinement, sentence restructuring, and the organisation of selected written sections. Grammarly was used to check grammar, spelling, punctuation, clarity, and consistency in academic English. DeepL was used to support translation and improve linguistic accuracy. These tools were used solely for writing and language editing. They were not used to generate, alter, or fabricate research data, participant statements, analytical results, or conclusions. The authors reviewed and revised all AI-assisted material and take full responsibility for the accuracy, originality, interpretation, and integrity of the final manuscript.”

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