WOMEN'S AFFECTIVE EXPERIENCES IN EVERYDAY USE OF URBAN PUBLIC OPEN SPACES IN YOGYAKARTA, INDONESIA

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ABSTRACT

Public Open Spaces (POS) shape urban experience; however, their evaluation has largely focused on physical qualities and safety, leaving experiential and affective aspects underexplored. This study examines how multiple perceptual dimensions of POS relate to women's positive affective experiences in Yogyakarta, Indonesia, moving beyond a predominantly risk-oriented perspective. A quantitative cross-sectional survey was conducted with 131 women across four urban POS representing contrasting contexts: a formal civic square, a neighborhood-scale park, a multifunctional recreational space, and a campus-attached park. The survey measured five perceptual dimensions of POS, which are: safety, comfort, accessibility, freedom, and surveillance, as potential predictors of affective experience. Affective experience was measured separately through respondents' reported feelings of relaxation, ease, enjoyment, and mood enhancement. Composite indicators were created after conducting reliability analysis, followed by the analysis of inter-variable relations via Spearman correlation and OLS regression models. The analysis showed that positive effects are positively and significantly correlated with perceptions of freedom, access, and comfort while weakly related to safety and surveillance dimensions of POS. Although safety-related aspects contribute to the establishment of favorable baseline conditions for a positive experience, they have not been proven to predict affect when considering other variables. Moreover, women's perceptions of freedom, accessibility, and ease of use were shown to be stronger predictors of positive affective experience than safety and surveillance. Thus, the perception of POS by women does not rely on mitigating risks as much as on the ability to use it comfortably and freely.

Keywords: *Affective Experience, Public Open Space, Gendered Spatial Experience*

INTRODUCTION

As places for movement and interactions, public open space (referred further as POS in this study) are also places where one perceives and feels in urban settings. The very

same street, park, or pathway can be experienced in entirely different ways by diverse actors in specific settings. Experiences are not just observed phenomena, but also the result of processes that emerge during everyday engagements with, and occupation of, POS (Morales-Flores and Marmolejo-Duarte, 2025). Although much literature in urban design has been devoted to physical aspects of space such as accessibility, land use, and environmental performance (Loo and Zhang, 2024; Milias *et al.*, 2024), the perceptual and affective aspects of POS are relatively less explored, especially in relation to gendered experience.

A large body of literature shows that women perceive POS in unique ways due to increased awareness of risks and vulnerabilities. Women's fear of violence has long been associated with heightened vigilance, avoidance tactics, and restrictions on freedom of movement in public space (Condon, Lieber and Maillochon, 2007; Dubey, Bailey and Lee, 2025). Research into fear of crime confirms women's higher levels of anxiety in relation to personal safety, especially in terms of sexual violence, affecting their movements and perceptions of urban areas (Tandogan and Ilhan, 2016; Chaney, Baer and Tovar, 2024; Chen *et al.*, 2024). Such affective experiences are not limited to mere awareness and concerns about danger but affect the way women move, occupy, and experience public areas. In this study, affective experience refers specifically to positive emotional states associated with POS use, including relaxation, ease, enjoyment, and mood enhancement. These are treated as outcomes that may be shaped by perceived safety, but also by other spatial perceptions such as comfort, accessibility, freedom, and surveillance. Notably, perceived safety does not necessarily correspond to actual risk, but may be shaped by environmental attributes such as lighting, visibility, and accessibility, which influence users' ability to anticipate risk and navigate public space safely (Krisdianto and Gultom, 2024).

Although safety is vital in terms of POS and women's spatial experiences, focusing exclusively on security and surveillance might lead to an overly simplistic view of the phenomenon. Even within recent urban-design research, women's experiences continue to be examined predominantly through visual and safety-related dimensions, while broader sensory and experiential aspects remain underexplored (Henty and Peimani, 2025). Modern views in urban studies and feminist geography suggest taking a more comprehensive approach to POS that would include such aspects as comfort, autonomy, accessibility, and mobility as crucial aspects shaping spatial experience (Pujiyanti, 2025; Ramezani *et al.*, 2026; Saputra, Dharmadiatmika and Fitriana, 2026). While safety-related attributes may reduce threats and support a basic sense of security, other perceptual qualities such as comfort, accessibility, and autonomy may contribute more directly to positive affective states. This distinction suggests that feeling safe in POS is not necessarily equivalent to enjoying, feeling at ease in, or positively engaging with the space.

The problem with the current perspective on POS and affective experiences, however, is that very little research explores the complex interplay of various perceptual dimensions influencing experiences. Current research tends to focus on specific variables without measuring their relative importance and assessing how they compare with other variables. Therefore, it remains unknown whether safety and security-related factors are the most important factors influencing positive experiences in POS. The purpose of this study is to fill the knowledge gap by

considering various perceptual dimensions of POS in relation to women's affective experiences and assessing the extent to which specific dimensions have more impact than others. Specifically, the following research questions need to be addressed:

1. How do different perceptual dimensions of POS relate to women's affective experiences?
2. Which perceptual factors have the strongest influence on positive affective responses in POS?
3. How do such commonly emphasized factors as safety and surveillance compare to other factors?

THEORY / RESEARCH METHODS

Theory

It is now widely recognized that POS is not just a physical container of urban life, but rather a place of experiences. The experience is produced during the interactions between the user and his or her environment. While POS may have certain characteristics in terms of its physical configuration, it is a fundamental tool in ensuring the well-being of humans, providing the grounds for everyday interactions and psychological relaxation (Qi, Mazumdar and Vasconcelos, 2024; Shishido, Terada and Kashihara, 2025). It is important to emphasize that these places provide the opportunity for people to interact with space and produce various experiences.

Theoretical Framework: Affective and Perceptual Experiences in POS

The most recent theoretical developments point out that POS should not be evaluated in terms of its accessibility or physical availability only. Although these aspects remain crucial, they do not guarantee the user's engagement with the POS or ensure some benefits. On the contrary, the concept of the "capability of experiences" implies that it should be assessed in terms of the diversity of experiences it can provide to the user (Shishido, Terada and Kashihara, 2025). In other words, the analysis of the quality of POS goes beyond evaluating the physical aspects of it. Instead, it focuses on its role in creating various forms of experiences in a particular socio-cultural context. Besides, POS is always socially and perceptually constructed. Apart from design solutions and physical parameters, it relies heavily on the responsiveness of POS to the everyday demands of users and its ability to address the subjectively perceived needs. The perceptions of the spatial quality determine whether the individual is able to engage with the environment and live in it (Félix and Organista, 2024). Therefore, POS can be viewed in terms of a multi-dimensional model incorporating different aspects, including physicality, sociality, and perception (Mandeli, 2019).

Significantly, empirical research shows that the connection between POS and social outcomes is highly mediated through perceptual influences. Rather than being a direct function of space, social interaction and cohesion are shaped by user perceptions of the environment (Peters, Elands and Buijs, 2010). Perceived safety, aesthetics, and place attachment have been found to play critical roles in determining

patterns of use and social interaction (Qi, Mazumdar and Vasconcelos, 2024). In this regard, affective and perceptual considerations become essential to understanding the role of POS as social infrastructure. Based on the above insights, this paper uses an experiential approach that regards POS as an affective and perceptual environment. Specifically, the hypothesis here is that the subjective experience of the environment rather than the objective aspects of space are the primary determinants of POS's utilization and value. In this study, perceptual and affective experience are treated as related but analytically distinct. Perceptual dimensions refer to respondents' evaluations of spatial conditions such as safety, comfort, accessibility, freedom, and surveillance. Whereas affective experience refers to the emotional states associated with being in the space, operationalized through relaxation, ease, enjoyment, and mood enhancement. The analysis therefore examines how perceptions of spatial conditions relate to, and potentially explain, positive affective responses.

Gendered Public Space Experience and Women's Everyday Spatial Negotiation

POS does not provide a neutral container of social life but creates an environment as a result of mutual influence on spatiality, social organization, and individual perception of the environment. Modern research on cities emphasizes the active role of POS in affecting human cognition, behavior, and affective responses (Gruosso, Del Signore and Di Cinzio, 2025). Within this context, gender becomes a vital element of perception, access, and usage of POS, as inclusive urban environments depend not only on physical provision but also on whether different user groups can access, participate in, and benefit from spatial resources equitably (Amalia *et al.*, 2025). As the differences in gender experiences are both behavioral and perceptual, men and women perceive safety, comfort, and belonging differently (Şenol, 2022). Moreover, while women's experience of POS is particularly affected by environmental factors, such as illumination, visibility, maintenance, and social threats, like harassment or criticism, their perception is strongly influenced by the historic legacy of planning, which was based on the predominance of mobility patterns of male citizens and separation of public and private realms (Martin and Dragojlovic, 2019).

The above-mentioned structural differences are also apparent from the perspective of everyday practices associated with spatiality. Women's use of public space is often shaped by caregiving responsibilities and everyday obligations, which may constrain opportunities for discretionary or leisure-oriented use (Day, 2000). On the contrary, the usage of POS by men is free-range and unbound by purpose-related constraints, which allows them to dominate public streets, markets, and other informal gathering places. In turn, the gender gap in experiences of POS cannot be reduced to socially conditioned differences but can also be explained from the perspective of spatial production. In particular, the notion of "gendered space" emphasizes that specific spatial qualities may create an atmosphere of danger, discomfort, or isolation and consequently lead to a situation where one gender dominates another (Pereira and Rebelo, 2024).

As a result, women's interaction with POS involves a constant process of spatial negotiation that enables women to cope with the restrictions associated with POS. This adaptation involves modification of movement patterns, change of timing of activities in POS, preference of specific spaces, and regulation of visibility of women

in public environments (Ranade, 2007). Temporal context is therefore an important component of gendered spatial experience. Modern data-driven approaches emphasize the relevance of these interactions in understanding gender dynamics of POS in the contemporary city. Specifically, the analysis of interactions, emotional responses, and spatial patterns of usage among the user categories reveals the extent to which the experience of POS translates into specific behaviors (Li *et al.*, 2024). Gendered experience of POS should be perceived as intersectional, since it intersects with multiple aspects, such as age, class, and cultural background. Accessing and negotiating POS is significantly different under these multiple conditions (Elfira *et al.*, 2021; Dubey, Bailey and Lee, 2025).

Identification of Gaps in Literature

While there has been substantial scholarly attention devoted to the gender-specific dynamics of POS experience, previous scholarships have predominantly considered safety, risk, and vulnerability as central to defining the nature of the women's spatial practices, emphasizing harassment, surveillance, and restricted mobility. These aspects are crucial for understanding the process of negotiation and production of POS experience; however, the dominant way of looking at them fails to account for how the positive experiential aspects of POS practice can be performed, experienced, and negotiated by individuals. Simultaneously, while the POS experience becomes increasingly recognized as an affective and perceptual sphere, it has not been empirically defined as a perceptual environment in terms of the specific interaction between the different elements that make up POS experience; moreover, while POS is conceptualized as an affective space, there are no empirical models that incorporate affective experience directly into the analysis.

Research Methods

The current paper uses quantitative research design which aims at studying women's perceptual and affective experience in POS. A questionnaire survey was carried out in order to collect subjective evaluations related to various perceptions of space and emotions associated with POS. As the goal of this research design lies in uncovering relationships between different perceptual dimensions (such as safety, comfort, access, freedom, and surveillance) and affecting outcomes, this research can be considered as exploratory-explanatory. By selecting women as a research group, the study highlights women's perceptual and affective experiences within POS. Even though the study applies survey-based methodology, it attempts to approximate spatial experience of the studied population.

To explain the analytical framework of the study, it is possible to refer to the flowchart shown in Figure 1. It can be observed that four POS of Yogyakarta, differing in terms of context (civic, ecological, institutional, recreational), were selected for the purpose of data collection and analysis. Information was collected via the survey conducted in the field among 131 female participants. The study used a set of questions based on Likert scales aimed at collecting information about perceptions and feelings related to POS. After data collection, a number of preparatory steps (construction of variables, data screening, construction of indicator composites and

reliability test) had been completed. Then, there were three phases of analysis, each aimed at different tasks: descriptive analysis aimed at defining overall response patterns, Spearman correlation analysis focused on the relationships between variables, and finally OLS regression models.

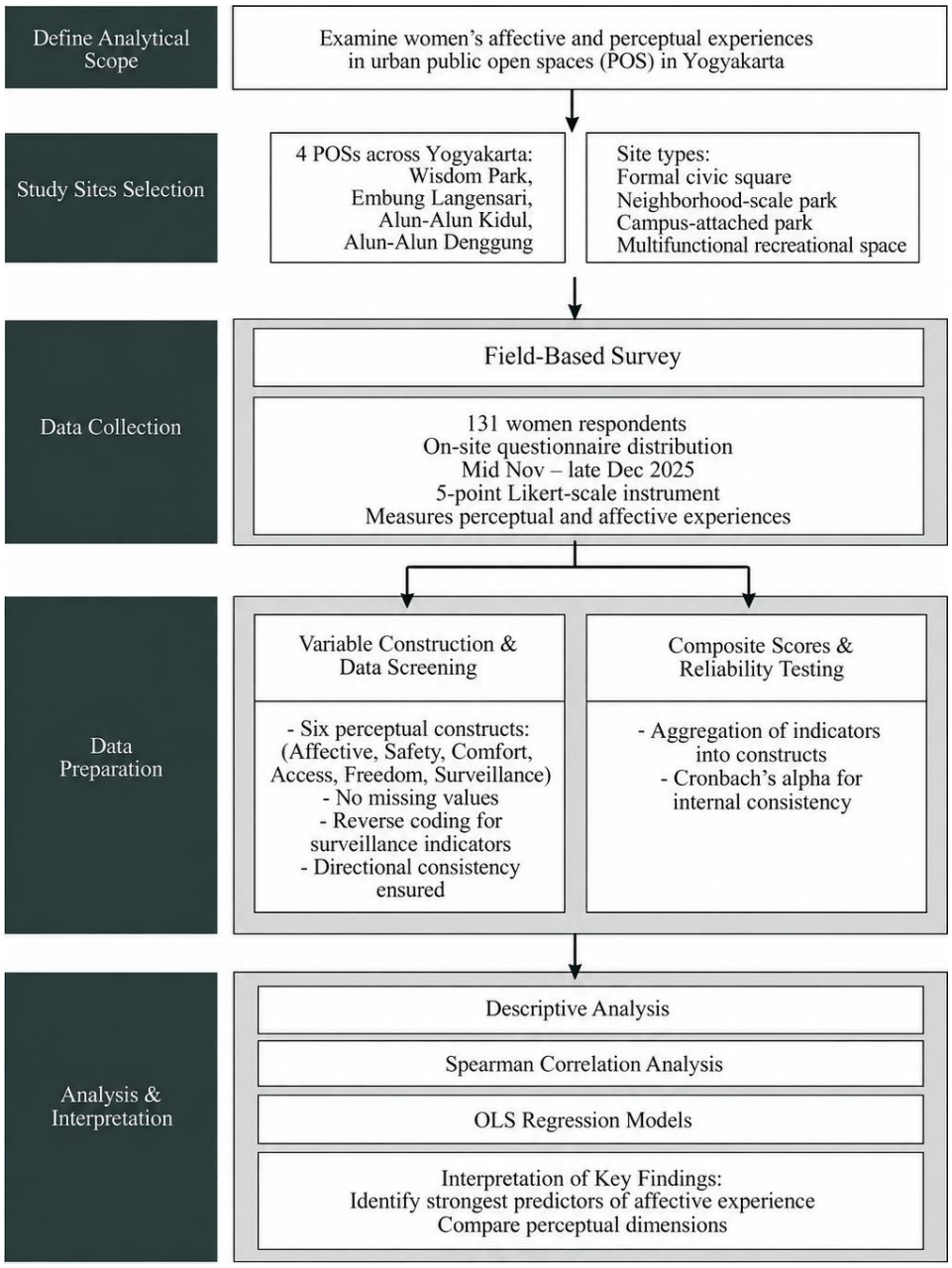


Figure 1. The Methodological Framework of this Study

Study Area and Participants

The study was conducted in the city of Yogyakarta, Indonesia, a medium-sized urban center characterized by a high concentration of POS that serve diverse social, cultural, and recreational functions. Four POS as shown in Figure 2 were selected as study sites: Alun-Alun Denggung, Wisdom Park, Embung Langensari, and Alun-Alun Kidul. These sites were chosen to represent contrasting spatial typologies and usage contexts, including formal civic squares, neighborhood-scale parks, and multifunctional open spaces embedded within dense urban fabric. These sites were selected to represent contrasting POS types and usage contexts, comprising a formal civic square, a neighborhood-scale park, a campus-attached park, and a multifunctional recreational space. The purpose of this variation was to broaden the contextual coverage of women's everyday POS experiences rather than to test differences in affective experience between POS types. Accordingly, site typology was not treated as an independent explanatory variable in the statistical analysis.



Figure 2. Four POS Used in this Study

Participants consisted of women users of the selected POS, recruited through on-site survey distribution. Data collection was conducted in mid-November - late December 2025 through voluntary participation, with respondents completing a structured questionnaire during or immediately after their direct use and occupation of the space. The survey captured demographic information, patterns of POS use, and perceptual evaluations using Likert-scale items across multiple constructs. A total of 131 valid responses were collected and included in the analysis. The 131 respondents were distributed across the four study sites, with each respondent completing the questionnaire for the POS they were using at the time of recruitment. All participants provided informed consent, and no personal identifiable information was recorded, ensuring anonymity and ethical compliance. For a multiple regression with five predictors, an a priori power calculation assuming a medium effect size ($f^2 = 0.15$), $\alpha = 0.05$, and statistical power of 0.80 indicates a minimum required sample of approximately 92 respondents (Nicholson *et al.*, 2021). The obtained sample therefore exceeded this threshold.

Survey Instrument and Variables

The survey questionnaire was developed based on existing scientific literature and theory concerning environmental perception and affective urbanism, as well as public spaces. Unlike the questionnaires which concentrate on measuring objective features of the environment, the current survey focuses on subjective assessments of the way urban environments are experienced. This corresponds with the trend to consider emotions and affective responses as essential elements that define the nature of POS use (Kaklauskas *et al.*, 2021; Li *et al.*, 2024). Each item was assessed on the 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Affective experience was selected as the outcome variable, which combines respondents' feelings of relaxation, ease, enjoyment, and mood enhancement. The choice of the affective variable is based on scientific evidence that urban environments exhibit multiple emotional reactions due to comfort, safety, and quality of the environment in contrast to its pure functionality (Ho *et al.*, 2026).

Independent variables were developed based on essential perceptual constructs of POS use. The comfort variable was developed with an emphasis on indicators such as cleanliness, seats, shadings, and crowding because evidence suggests that micro-environmental elements greatly impact the psychological well-being of individuals within the urban environment (Ho *et al.*, 2026). Access was defined based on how easy respondents thought it would be to enter, move around, and make use of POS space. This definition is consistent with findings linking walkability and accessibility to positive emotional experiences in urban public spaces (Li *et al.*, 2024). The safety and surveillance constructs involved respondents' views about being observed, receiving unwanted attention, and avoiding certain behaviors due to a feeling of being surveilled. This construct is important because previous studies have demonstrated that both surveillance and enclosed spaces can create ambivalent emotions, producing feelings of both security and fear (Kaklauskas *et al.*, 2021; Ho *et al.*, 2026). Freedom was defined by using indicators of freedom of staying in, moving around, and utilizing POS space as respondents see fit.

Data Analysis

Data analysis proceeded in several stages to progressively examine women's perceptual and affective experiences in POS. First, descriptive analysis was conducted to summarize respondent characteristics and overall response tendencies across all perceptual and affective indicators. Frequency distributions and percentage-based summaries were used to examine how respondents evaluated individual items, allowing initial inspection of central tendencies, dispersion, and potential floor or ceiling effects. This step provided contextual grounding for subsequent analyses and ensured that the data exhibited sufficient variability for relational modeling. These descriptive patterns provide an initial reading of how everyday experiences are distributed across respondents.

Following descriptive exploration, reliability analysis was performed for each multi-item construct using Cronbach's alpha to assess internal consistency. All constructs demonstrated acceptable reliability, supporting the aggregation of indicator-level responses into composite scores. To examine associations between perceptual dimensions and affective outcomes without imposing assumptions of

normality or interval-level measurement, Spearman's rank-order correlation was employed. Correlation analysis was conducted at the indicator level to preserve the ordinal nature of Likert-scale responses and to identify fine-grained relationships between specific spatial perceptions and affective indicators.

Finally, multiple regression analysis was conducted to assess the relative contribution of perceptual constructs to overall affective experience. Ordinary Least Squares (OLS) regression models were estimated using composite scores for affective experience as the dependent variable. A series of models was specified to examine the robustness of relationships across different combinations of predictors, allowing comparison between comprehensive specifications. Model fit statistics, unstandardized coefficients (β), and significance levels were used to interpret the direction, magnitude, and explanatory power of each perceptual dimension. For both correlation and regression analyses, statistical significance was evaluated using a p-value threshold of 0.05. Regression coefficients with p-values between 0.05 and 0.10 were described as trend-level associations for descriptive purposes but were not considered statistically significant.

RESULTS AND DISCUSSION

Results

Prior to analysis, the dataset was screened to ensure data quality and consistency. All questionnaire items were complete, and no missing values were identified across the dataset. Likert-scale items were coded to ensure directional consistency across constructs, such that higher values uniformly indicated more favorable conditions or perceptions. Indicators related to surveillance, which were negatively framed, were reverse coded prior to analysis. All variables were then retained for subsequent analyses.

Respondent Profile and Descriptive Overview of Perceptual Variables

The results of the descriptive analysis presented in Table 1 offer insight into the demographics of the respondents and their general tendency to respond to questions regarding the perception of different aspects of the environment. The demographics indicate that there was diversity in terms of age, work status, and the frequency of visits to public spaces. Therefore, it can be concluded that the study results were influenced by the diversity of POS experiences of the female population. Overall, the responses received to most of the questionnaires showed a high tendency to provide a higher level of evaluation on the Likert scale from 3 to 4 out of 5. Moreover, the number of responses that had a score of 1 was relatively low in comparison to other categories, which implies that the respondents did not have floor effects when responding to the questions. Because time of visit was recorded during data collection, affective responses were also examined descriptively across morning, afternoon, and evening periods to explore whether temporal context corresponded with different response patterns.

Table 1. Respondent Profile

Variable	Category	n	%
Age (mean)	Mean (Age_Code)	1,24	—
Age (distribution)	18–24	99	75,6
	25–34	32	24,4
Employment status	Student	82	62,6
	Private employee	24	18,3
	Self-employed	9	6,9
	Civil servant	7	5,3
	Unemployed	6	4,6
	Others	3	2,3
Place of residence	Yogyakarta City	78	59,5
	Sleman	41	31,3
	Bantul	8	6,1
	Outside Yogyakarta	4	3,1
Time of visit	Morning (06:00–10:00)	6	4,6
	Afternoon (14:00–17:00)	76	58
	Evening (17:00–22:00)	49	37,4
Length of stay	< 1 hour	42	32,1
	1–2 hours	63	48,1
	> 2 hours	26	19,8
Frequency of visit	Several times a week	46	35,1
	Once a week	34	26
	Several times a month	31	23,7
	Rarely	20	15,3

Distribution analysis on response values by indicator shows divergent distribution patterns within perceptual dimensions as illustrated in Figure 3. It presents the response distributions at the indicator level within each broader construct. For example, the Affective construct is represented by relaxation, feeling at ease, enjoyment, and mood enhancement, while Comfort is represented by cleanliness, seating quality, shade/wind comfort, and crowding. Indicators of comfort perceptions of cleanliness, seating quality, and shading comfort were skewed positively as well, while those of crowding perceptions were widely distributed, indicating the heterogeneity of comfort perceptions based on varying spatial conditions. In contrast, indicators of surveillance perceptions like feeling observed, feeling stared at, and feeling uncomfortable places were negatively skewed, signaling caution about the experience of surveillance contexts. Indicators of safety perceptions like visibility and lighting were skewed positively, while those of shelter perception and fear of harassment were distributed widely, indicating generally positive affective perceptions of POS experiences.

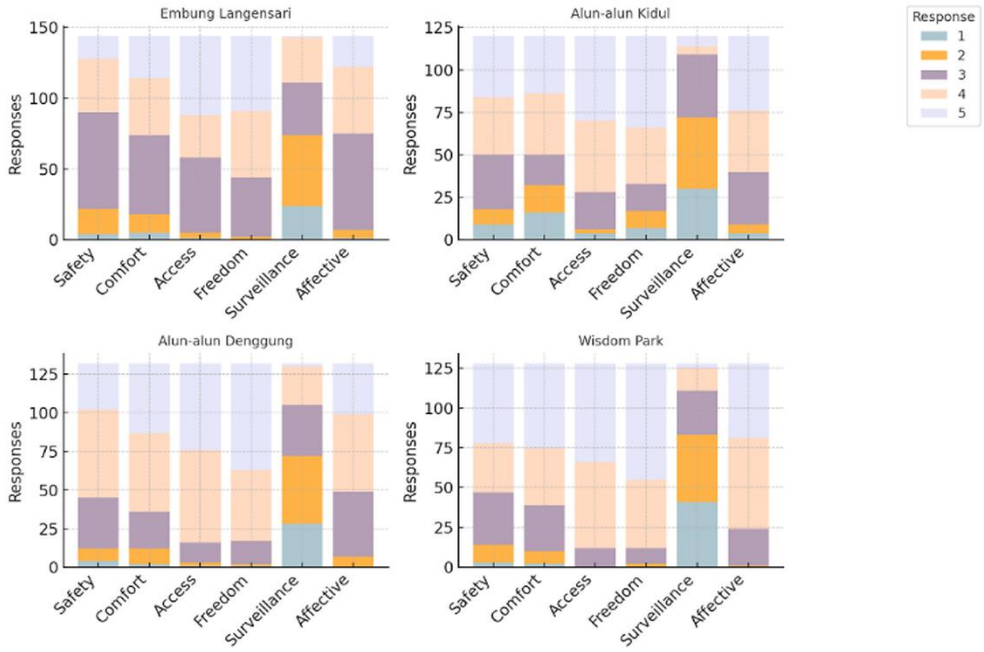


Figure 3. Distribution of Likert-scale Responses across Indicators within each Perceptual and Affective Construct

Temporal Pattern of Affective Responses

To explore whether affective experience varied descriptively across different times of POS use, the distributions of the four affective indicators: relaxation, feeling at ease, enjoyment, and mood improvement, were examined across morning, afternoon, and evening respondents. As illustrated in Figure 4, the distribution of responses shows some temporal variation across the affective indicators. However, these patterns are interpreted descriptively rather than as evidence of a temporal effect because the number of respondents was uneven across time periods (morning, n = 19; afternoon, n = 29; evening, n = 83), and the distribution of observation times also differed across study sites. From the bubble plot visualization, we can see that affective responses remain predominantly positive across morning, afternoon, and evening visits, although some indicators, particularly feeling at ease, show greater temporal variation than others. This suggests that time of visit may shape the distribution of affective experience but does not appear to override the overall positive affective pattern.

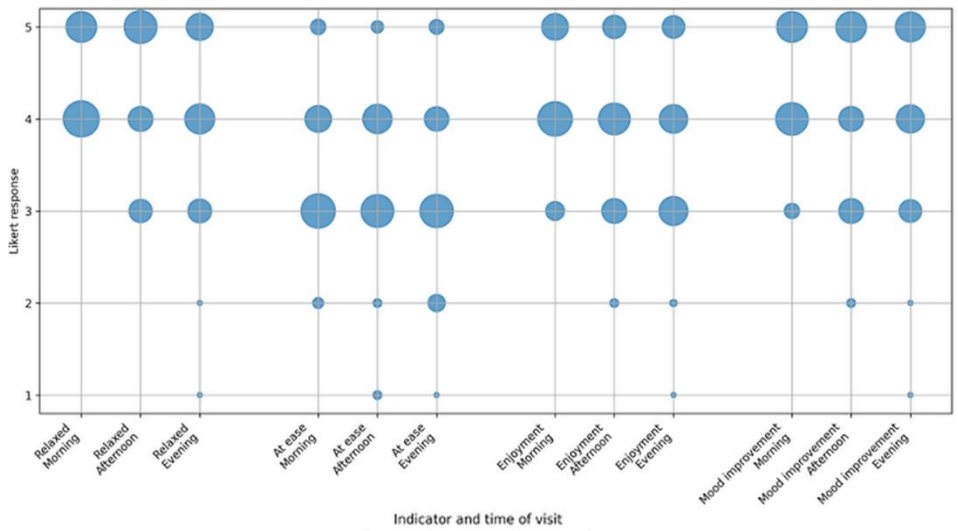


Figure 4. Affective Indicators by Time of Visit

Reliability Analysis

The internal consistency of the measurement constructs was assessed using Cronbach's alpha and the results were represented in Table 2. All six constructs: safety, comfort, access, freedom, surveillance, and affective response, demonstrated acceptable to good reliability, indicating that the indicators within each construct were consistently measuring the same underlying perceptual dimension. The alpha values suggest that the items were sufficiently coherent to justify their use in subsequent analyses, including the construction of composite scores for inferential modeling. Overall, the reliability results support the use of these scales for examining relationships between perceptual factors and women's affective responses in POS.

Table 2. Reliability Test Results

Construct	# Items (k)	N	Cronbach's α
SAFETY	4	131	0,734
COMFORT	4	131	0,662
ACCESS	4	131	0,811
FREEDOM	4	131	0,767
SURVEILLANCE	4	131	0,765
AFFECTIVE	4	131	0,866

Correlation Analysis

Spearman's rank-order correlation analysis shown in Figure 5 revealed consistent positive associations between most perceptual indicators and affective responses, with notable differences in strength across perceptual domains. Indicators related to comfort, access, and freedom exhibited the strongest and most stable correlations with affective outcomes. In particular, shade and wind comfort, walkability, and freedom-related indicators (freedom of place, freedom of time, and control over activities) showed moderate correlations across all affective dimensions ($\rho \approx 0.34–0.56$, $p <$

0.05). These associations were especially pronounced for affective enjoyment and mood improvement, suggesting that environmental conditions supporting physical ease, autonomy, and effortless movement are closely linked to positive emotional engagement in POS. By contrast, comfort-related crowding consistently displayed weak and non-significant associations with affect, indicating that crowd density alone does not uniformly shape women's affective experiences.

Safety-related indicators demonstrated more selective but still meaningful relationships with affective responses. Features such as lighting, visual clarity, and shelter availability were positively correlated with relaxation and enjoyment, though their associations with feeling "at ease" were comparatively weaker. Harassment concern, even after directional correction, remained moderately associated with affective enjoyment and mood improvement, underscoring its relevance as an experiential rather than purely functional safety issue. In contrast, surveillance-related indicators, once reverse-coded, exhibited weak or inconsistent correlations with affective outcomes. Indicators such as being watched or receiving unwanted attention showed minimal associations with affective states, while uncomfortable corners and avoided areas were only modestly linked to relaxation and mood improvement. This pattern suggests that reduced surveillance-related discomfort may function as a baseline condition within everyday spatial experience, rather than as a direct driver of positive emotional experiences in POS.



Figure 5. Spearman's ρ: Perceptual Indicators Vs Affective Indicators (*p < 0.05)

Regression Analysis

A multiple linear regression model was estimated to examine the relative contribution of perceptual variables to women's affective experiences in public spaces. The model was statistically significant ($F(5,125) = 21.55$, $p < 0.001$) and explained 46.3% of the variance in the composite affective score (adjusted $R^2 = 0.441$). Among the predictors, perceived freedom emerged as the strongest and most significant predictor of affective

experience (β = 0.326, p = 0.001), followed by access-related perceptions (β = 0.224, p = 0.046). Comfort showed a positive but non-significant trend with affective responses (β = 0.160, p = 0.089), while safety and surveillance did not exhibit statistically significant effects after controlling for other perceptual factors. These results suggest that women's positive affective engagement with POS is driven more by perceptions of autonomy and accessibility than by safety or surveillance alone.

To assess the robustness of the regression results, additional models were estimated by sequentially simplifying the predictor set as shown in Table 3. In Model 2, surveillance was excluded from the model, resulting in virtually unchanged explanatory power (adjusted R^2 = 0.445), indicating that surveillance-related perceptions did not contribute meaningfully to explaining affective experience once other perceptual factors were considered. In this specification, perceived freedom (β = 0.323, p = 0.001) and access (β = 0.227, p = 0.042) remained statistically significant predictors, while comfort continued to show a positive but non-significant trend and safety remained non-significant. Model 3 further reduced the predictors to comfort and freedom only, yielding a minimalist model that retained substantial explanatory power (adjusted R^2 = 0.413). In this final model, both comfort (β = 0.304, p < 0.001) and freedom (β = 0.443, p < 0.001) emerged as strong and statistically significant predictors of affective experience, with freedom exhibiting the larger effect size. Together, these results reinforce the central role of perceived autonomy and everyday physical comfort in shaping women's affective engagement with POS.

Table 3. Regression Results of the Three Models Tested in this Study

Predictor	R^2	Adjusted R^2	Unstandardized β	p-value	Significance
			Model 1		
SAFETY	0,463	0,441	0,103	0,18	Not significant
COMFORT			0,16	0,089	Not significant
ACCESS			0,224	0,046	Significant
FREEDOM			0,326	0,001	Strongly significant
SURVEILLANCE			0,027	0,646	Not significant
			Model 2		
SAFETY	0,462	0,445	0,11	0,146	Not significant
COMFORT			0,157	0,092	Non significant (trend-level)
ACCESS			0,227	0,042	Significant
FREEDOM			0,323	0,001	Strongly Significant
			Model 3		
COMFORT	0,462	0,413	0,304	< 0.001	Strongly Significant
FREEDOM			0,443	< 0.001	Strongly Significant

Discussion

This research makes a contribution to gendered POS studies by illustrating that affective experiences of women are influenced not by traditionally considered aspects like security and control but rather by experiential elements associated with independence, access, and comfort. Through empirical comparisons of various perceptual concepts, the results indicate that risk-based approaches commonly discussed in current literature should be replaced by the concept of everyday usability and independence in facilitating affectively positive spatial experiences. Therefore, the research contributes to the development of an affective-perceptual approach to POS, which is focused on creating empowering spatial experiences for women rather than protecting them.

Reframing What Shapes Women's Positive Experiences in POS

One of the key insights gained from the current research is that women's positive affective experiences in POS were influenced significantly by freedom, access, and comfort rather than safety and surveillance. Indeed, the descriptive findings indicated overall favorable ratings for all measures, yet the results of the statistical analysis provided more nuanced evidence. Correlation analysis found that all the indicators representing comfort, access, and freedom were significantly associated with enjoyment, mood, and general affect. Meanwhile, surveillance-related items yielded lower and unreliable correlation coefficients. Similar tendencies were observed in the regression analysis, which demonstrated that freedom was a key predictor of positive experiences, whereas safety lost its predictive power after the addition of other predictors (comfort and access). Overall, it can be said that positive female experience in POS cannot be solely explained by the elimination of fear but depends on space providing women with enough autonomy, comfort, and convenience. As a result, users are able not only to stay in public space but also use it to a maximum capacity.

The current findings support and enrich the theoretical framework used in this study. First and foremost, it was proposed that safety concerns, fear, and surveillance should not be the primary factors considered in the evaluation of women's experience in POS. Instead, comfort, autonomy, accessibility, and mobility could play crucial roles in the generation of positive experiences. The findings presented above confirm that assumption. On the one hand, the present results can be seen as contradicting the existing studies focusing on gendered experiences in POS. However, it should be stressed that they do not necessarily refute these findings since the perception of space as unsafe is a normal experience that allows people to assess whether their security needs can be met or not. For example, women perceive space predominantly via the lenses of risk assessment and visibility because they are constantly exposed to safety threats (Elfira *et al.*, 2021; Dubey, Bailey and Lee, 2025) . At the same time, it does not mean that space perception involves only these aspects. Women were more attentive to dark and isolated areas, especially in conditions of high entrapment and night hours (Chaney, Baer and Tovar, 2024) . The descriptive temporal patterns observed in this study similarly suggest that affective responses may vary somewhat across different times of use, although positive responses remained dominant across morning, afternoon, and evening periods. The introduction of the concept of the

"capability of experiences" via Shishido et al. (2025) is essential in this regard: POS is valuable not due to provision or protection but thanks to the wide variety of experiences that can be generated within. From this perspective, freedom and access become key factors enabling women to have positive experiences in POS.

From Avoidance to Engagement: Reinterpreting Gendered Spatial Experience

While there was an observable differentiation in the relationship between perceptual factors and affective outcomes experienced by women in POS in terms of their strength and reliability, safety-related and surveillance-related indicators emerged as relatively selective predictors while comfort and access-related indicators showed stronger relationships with affective outcomes, and freedom became one of the strongest predictors. These findings allow one to assume that different perceptual factors play different roles when affecting women's experience: whereas some perceptual factors contribute to mitigating potential risks and negative experiences, others directly influence positive affective states in a more proactive way. Thus, the fact that safety and surveillance-related variables did not prove their significance as predictors in regression models despite being emphasized extensively in literature on gender and POS can be explained by the nature of their role in shaping the gendered POS experience: instead of driving positive emotions per se, these variables serve the purpose of ensuring that nothing threatens the positive state of affairs, allowing one to remain safe and relaxed in POS.

This distinction reframes how gendered POS experience can be understood. Much of the existing literature has approached women's interaction with POS primarily through the lens of avoidance and risk management, focusing on how women navigate risk, harassment, and vulnerability (Şenol, 2022; Dubey, Bailey and Lee, 2025). While these perspectives remain valid, the present findings suggest that they capture only part of the experience. Building on the experiential framework discussed earlier, POS should also be understood in terms of its capacity to support autonomy, ease, and meaningful engagement (Qi, Mazumdar and Vasconcelos, 2024; Shishido, Terada and Kashihara, 2025). In this sense, women's spatial practices are not solely reactive but also aspirational. It is shaped not only by what they seek to avoid, but by what enables them to feel relaxed, comfortable, and free. This shift from avoidance to engagement offers a more comprehensive understanding of gendered POS experience, aligning with the study's broader aim to move beyond risk-centered narratives toward a more balanced, affective perspective.

CONCLUSIONS

This study demonstrates that women's affective experiences in urban POS are shaped more strongly by experiential dimensions such as freedom, access, and comfort than by traditionally emphasized factors like safety and surveillance. By integrating multiple perceptual variables within a comparative analytical framework, the findings reveal that positive emotional engagement is not primarily driven by the reduction of risk, but by the extent to which space enables autonomy, ease, and everyday usability. In this sense, safety functions as a baseline condition rather than a central determinant

of affective quality. This shifts the understanding of POS performance from a risk-avoidance paradigm toward an experience-oriented perspective, where the capacity to support meaningful, comfortable, and self-directed use becomes the key indicator of spatial success. These findings highlight that the quality of POS is experienced through everyday use, rather than determined solely by its capacity to reduce risk.

The study contributes to urban design and gendered space discourse by empirically validating an affective–perceptual framework that positions emotional experience as a measurable and lived outcome of POS evaluation. Findings of this study suggest that inclusive and gender-sensitive POS design should move beyond safety-focused strategies and support women's autonomy in everyday use. In practical terms, this includes providing clear and convenient access and circulation, flexible spaces that allow users to stay and undertake activities without unnecessary restrictions, and comfortable environmental conditions through adequate seating, shade, cleanliness, and manageable crowding. The limitation of this study is since the study was designed to examine relationships between perceptual dimensions and affective experience across POS contexts, the sample was not powered or balanced for formal comparisons between site types. Future research with larger site-specific samples could examine whether these relationships differ systematically across POS typologies. The study also has limitations related to sample composition. Because only women were included, the findings characterize women's affective experiences in POS but do not establish whether the observed patterns are unique to women or differ significantly from those of men. Future research incorporating male or mixed-gender comparison groups could examine the extent to which these affective relationships are gender-specific.

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