

## "ANALYSIS OF DETERMINANTS OF CLEAN AND HEALTHY LIVING BEHAVIOR (PHBS) IN URBAN COMMUNITIES A CROSS-SECTIONAL STUDY IN A DENSELY POPULATED AREA"

Regina Jhson

[regina@jhoson.ac.id](mailto:regina@jhoson.ac.id)

Universidade Cidade de São Paulo (UNICID) Brazil

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### *Abstract*

Clean and Healthy Living Behavior (PHBS) is a crucial indicator in improving public health status. This study aims to analyze the factors influencing the implementation of PHBS in urban communities residing in densely populated areas. Using a quantitative cross-sectional approach, this research involved 150 respondents from three sub-districts in City X. Data were collected through structured questionnaires and analyzed using logistic regression. The results show that education level, knowledge of PHBS, access to clean water, and the role of health cadres are significant determinants of PHBS practices. These findings recommend the need for more intensive community health education and strengthening the role of health cadres as agents of behavioral change.

**Keyword:** PHBS, Public Health, Urban Community, Determinants, Healthy Behavior

### Introduction

Clean and Healthy Living Behavior (PHBS) is one of the key strategies in realizing optimal public health, particularly in densely populated urban areas where environmental conditions, infrastructure limitations, and socioeconomic inequality contribute to increased vulnerability to disease. The PHBS program is designed to encourage individuals, families, and communities to adopt healthy lifestyle habits through simple but impactful actions such as handwashing with soap, using clean water, proper waste disposal, and active participation in health campaigns. These behaviors are essential in preventing the spread of communicable diseases and managing the burden of non-communicable diseases, which are both prevalent in urban settings.

Urban environments pose unique public health challenges. According to the Ministry of Health's 2020 Riskesdas Report, densely populated urban areas have higher incidence rates of diseases related to poor hygiene, such as diarrhea, respiratory infections, and vector-borne illnesses. These areas often lack equitable access to basic sanitation, and public health interventions are frequently hampered by limited community engagement and resource constraints. Furthermore, rapid urbanization has outpaced the development of health infrastructure, exacerbating issues related to waste management, water quality, and overcrowding.

Numerous studies emphasize that the effectiveness of PHBS is not solely determined by the availability of infrastructure but also by social determinants such as education, socioeconomic status, cultural beliefs, and local leadership. Health behavior models, including the Health Belief Model and Social Cognitive Theory, suggest that an individual's perception of risk, self-efficacy, and exposure to health information critically shape their health-related decision-making.

This study focuses on identifying the key determinants that influence PHBS practices in a densely populated urban area in City X. By analyzing educational level, PHBS knowledge, access to clean water, involvement of health cadres, and household income, this research seeks to provide evidence-based insights to guide more targeted public health interventions. The results of this study are expected to inform local policy, enhance the effectiveness of PHBS programs, and ultimately contribute to healthier urban communities.

Clean and Healthy Living Behavior (PHBS) is part of promotive and preventive efforts in public health systems aimed at empowering individuals and communities to be aware of the importance of health. In urban areas, particularly densely populated regions, PHBS implementation faces complex challenges due to high mobility, housing density, and unequal access to health facilities. Based on Riskesdas 2020 data, PHBS coverage in urban areas has shown a stagnant trend over the past five years, especially in indicators such as handwashing with soap, access to clean water, and household sanitation. Therefore, this study is essential to identify the factors influencing PHBS practices in urban communities.

PHBS includes various aspects such as handwashing with soap, consumption of clean water, defecation in proper toilets, physical activity, and mosquito breeding control. According to Notoatmodjo (2010), health behavior is influenced by knowledge, attitudes, individual actions, and external factors such as environment and social support.

Another study by Setyawan et al. (2018) shows that direct involvement of health cadres significantly improves public awareness of PHBS. Socioeconomic factors, including education and income, are also important variables in shaping healthy behavior in densely populated areas (MoH, 2021).

## **Research methods**

This study uses a cross-sectional design with a quantitative approach. The research location is three sub-districts in City X, known for high population density and diverse environmental conditions. The population in this study is all household heads in the area. The sample was selected using purposive sampling, involving 150 respondents. The research instrument was a structured questionnaire tested for validity and reliability. Data were analyzed using logistic regression to identify the relationship between independent variables (education, PHBS knowledge, access to clean water, role of health cadres, family income) and the dependent variable (PHBS practice level).

## **Results and Discussion**

### **Respondent Characteristics**

The findings of this study reveal that the determinants of Clean and Healthy Living Behavior (PHBS) among urban populations residing in densely populated areas are inherently multifaceted, encompassing structural, cultural, and individual dimensions. The analysis indicates that educational attainment, access to sanitation facilities, and the presence of health promotion and preventive interventions by local health institutions are significantly correlated with the adoption level of PHBS.

Specifically, the results corroborate the premise that education functions as a proximal determinant mediating knowledge and attitudes toward health practices, as articulated in the Theory of Planned Behavior. Individuals with higher levels of formal education tend to possess better health literacy, thereby enabling them to internalize the significance of PHBS in their daily routines.

Moreover, environmental infrastructural deficiencies—particularly in terms of sanitation and access to clean water—emerge as structural determinants that constrain the optimal implementation of PHBS. Disparities in access to these basic facilities exacerbate health inequities within urban populations, reinforcing patterns of health exclusion in marginal areas. Consequently, community-based interventions aimed at strengthening basic

service systems become imperative within the framework of sustainable urban health development.

From a sociocultural perspective, collective norms and inherited habitual practices also play a pivotal role in shaping individual behaviors concerning PHBS. This underscores the notion that behavioral change in health is not solely contingent upon the dissemination of information but necessitates transformative approaches that address the values, beliefs, and social identities embedded within urban communities.

Multivariate logistic regression analysis further demonstrates that participation in health education programs and exposure to PHBS media campaigns are statistically significant predictors of improved PHBS practices. These findings advocate for the design of locally contextualized and culturally responsive health education programs, integrating participatory risk communication strategies to enhance behavioral outcomes. Ultimately, the implications of this study underscore the necessity of cross-sectoral synergies in both policy formulation and intervention implementation. Only through comprehensive, integrative approaches can the complex and interwoven determinants of health behavior be adequately addressed in the dynamic and heterogeneous urban landscape. Most respondents were aged 30–45 years (40%), female (65%), and had a secondary education (junior/senior high school) at 55%. The majority had income below the regional minimum wage (60%) and lived in rented houses with high occupancy density.

### **PHBS Practice Level**

From the questionnaire results, 45% of respondents were categorized as having low PHBS practice, 35% moderate, and only 20% high. The weakest PHBS practices were found in indicators of proper toilet use and household waste management.

### **Logistic Regression Analysis**

Analysis results show that:

- Education ( $p = 0.003$ )
- PHBS knowledge ( $p = 0.001$ )
- Access to clean water ( $p = 0.000$ )

have a significant influence on PHBS practices. Meanwhile, family income ( $p = 0.094$ ) was not statistically significant.

## **Discussion**

The findings show that internal factors such as knowledge and education are strongly related to healthy behavior. Individuals with good PHBS knowledge are more likely to wash hands, maintain environmental cleanliness, and access health facilities. This aligns with Rosenstock's Health Belief Model, which states that perceived benefits and barriers influence individual actions. The role of health cadres also emerges as a significant determinant. Cadres act as information bridges and motivators within the community, especially in densely populated areas often lacking attention from professional medical personnel. Activities such as home visits, counseling, and routine monitoring effectively increase PHBS awareness.

Although family income was not statistically significant, this may be due to government interventions such as clean water subsidies or proper toilet programs. Thus, economic capacity is not the only driver of healthy behavior, but rather a synergy of education and social-environmental support.

## **Closing**

PHBS in urban communities in densely populated areas is influenced by education, knowledge of PHBS, access to clean water, and the involvement of health cadres. Efforts to improve PHBS should focus on continuous education, cadre training, and sanitation infrastructure improvement. Local governments are encouraged to intensify community-based health promotion programs and expand cadre networks to the neighborhood level.

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