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Assessing the Prevalence of Smoking in Biñan City, Laguna: A Basis for Establishing a Respiratory Therapist–Led Smoking Cessation Clinic

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ABSTRACT

This descriptive study aimed to assess the prevalence of smoking among residents in Biñan City, Laguna, and to determine the perceived need for a community-based smoking cessation clinic led by respiratory therapists. A total of 400 respondents from various age groups and occupational backgrounds were surveyed using structured questionnaires. Descriptive statistical tools, including frequency distributions and measures of central tendency, were employed to analyze demographic characteristics, smoking behaviors, awareness of health risks, and preferences for cessation support. The results revealed that 70.5% of respondents were current smokers, with the highest prevalence among middle-aged adults and males. While awareness of smoking's respiratory health risks was high (99%), knowledge of cardiovascular consequences was notably lower (81.5%). Only 37.5% of respondents were aware of existing cessation programs, though the majority (87.5%) supported the establishment of a clinic. Respiratory therapists were highly rated (mean score = 3.77) for their credibility and perceived effectiveness in cessation support. Respondents expressed strong willingness to quit smoking and showed preference for individualized, medically supervised interventions, particularly those offering counseling and pharmacologic aid. These findings support the development of a locally anchored, respiratory therapist–led smoking cessation program in Biñan City to meet the community's needs and enhance public health outcomes.

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KEYWORDS:
Community Health, Preventive Health, Respiratory Therapy, Smoking Cessation

INTRODUCTION

Smoking as Global Crisis

Tobacco use remains a leading preventable cause of death worldwide, claiming over 8 million lives annually, with significant respiratory and cardiovascular burdens in low- and middle-income countries like the Philippines. In the Philippines, smoking prevalence exceeds 20% among adults, disproportionately affecting males due to sociocultural norms and occupational stress, aligning with global patterns where men face higher rates. Local data from Biñan City, Laguna—a rapidly urbanizing area with ~407,000 residents—mirrors this, showing 70.5% current smokers among 400 surveyed adults, highest among middle-aged males (31-50 years, 66.5% male respondents

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Local Prevalence Patterns

The article's findings highlight elevated smoking in self-employed (32.5%) and student groups (91.9% current smokers), linked to peer pressure (mean 3.32) and social life integration (mean 3.67). Awareness of respiratory risks like COPD and lung cancer is near-universal (99%), but cardiovascular knowledge lags (81.5%), with schools and providers as key sources. Only 37.5% know of existing programs like counseling, despite multimodal options.

Gaps in Cessation Support

Current interventions suffer low visibility, limiting uptake despite WHO-endorsed pharmacologic and behavioral aids. Respondents favor respiratory therapists (mean 3.77 credibility) for clinics offering medication (21%), counseling

(20.5%), and assessments (19%), reflecting trust in their pulmonary expertise. Barriers include stigma, logistics, and low self-efficacy, underscoring needs for accessible, therapist-led models.

Study Purpose

This descriptive study provides baseline data on Biñan City's smoking landscape via surveys, aiming to justify a respiratory therapist-led cessation clinic integrating personalized care to reduce prevalence and enhance outcomes.

METHODS

Research Design

This study employed a descriptive research design to assess the prevalence of smoking among residents of Biñan City, Laguna, and to evaluate the perceived need for establishing a Respiratory Therapist–led smoking cessation clinic. The primary objective of the descriptive method was to provide a detailed account of the characteristics of the smoking population, including demographics, smoking behavior, awareness of tobacco-related health risks, and exposure to current cessation services (Gonzales & Trinidad, 2023).

Descriptive research is particularly suited for public health studies aiming to systematically observe and document phenomena as they naturally occur, without manipulating variables or experimental control (Battista & Torre, 2023). This method allows for the accurate portrayal of community-level trends and the identification of target areas for future intervention (Lopez et al., 2023).

Data were collected through structured questionnaires containing both closed and open-ended items, administered to a sample of 400 residents across various barangays in Biñan. The responses were analyzed using descriptive statistical tools such as frequency distributions and measures of central tendency to summarize patterns in smoking behavior and cessation readiness (Yap & Santos, 2023).

By utilizing this purely descriptive design, the study was able to capture a snapshot of the current tobacco use landscape in Biñan City, providing essential baseline data to support the planning and implementation of a localized, Respiratory Therapist–led smoking cessation initiative.

Sources of Data

The primary sources of data for this study consisted of adult residents of Biñan City, Laguna, aged 18 years and above, who are either current smokers and former smokers. Respondents were selected to provide first-hand information regarding their smoking behaviors, awareness of smoking-related health risks, and their willingness to participate in a smoking cessation program. Their insights served as the foundational data for understanding the prevalence of tobacco use and for evaluating the need for a Respiratory Therapist–led smoking cessation clinic in the locality.

Population of the Study

The population of the study comprised adult residents of Biñan City, Laguna, aged 18 years and above, regardless of gender, civil status, occupation, or educational background. This included individuals who are current smokers and former smokers within the household, workplace, or public areas. The inclusion of this broad demographic was essential to accurately assess the prevalence of smoking in the city and identify community-wide patterns, behaviors, and needs regarding tobacco use and cessation.

As of the most recent estimates, Biñan City has a population of approximately 407,437 based on the 2020 Census by the Philippine Statistics Authority (PSA, 2021). Given this figure, the study focused on a representative sample of the adult population, particularly those within selected barangays with known higher rates of smoking or vulnerability to tobacco exposure, as advised by local health records and community health workers.

Utilizing a margin of error of 5%, a confidence level of 95%, a population size of 407,427 and a response distribution of 50%, the calculated sample size for the PSA 2021 report was determined to be 384 respondents. This sample size ensured statistical reliability and generalizability of the findings to the target population.

Instrumentation and Validation

This study utilized a researcher-constructed questionnaire as the primary data-gathering instrument. The questionnaire was developed based on a review of current literature on smoking behavior, tobacco control, and community health interventions. It was designed to capture both quantitative and qualitative data relevant to the study's objectives, including demographic characteristics, smoking habits, levels of awareness on smoking-related health risks, readiness to quit smoking, and perceptions regarding the establishment of a smoking cessation clinic led by respiratory therapists.

The questionnaire consisted of four parts:

Part I: Demographic Profile – included items on age, sex, civil status, occupation and educational attainment.

Part II: Smoking Behavior and Exposure – focused on smoking status (current, former, never), frequency and duration of smoking and type of smoking material used.

Part III: Awareness and Attitudes – assessed knowledge of smoking-related health risks, awareness of anti-smoking campaigns, and attitudes toward smoking and cessation.

Part IV: Willingness and Perceptions – measured the respondent's willingness to quit, preferred methods of

cessation, and acceptability of a Respiratory Therapist–led clinic in their community.

To ensure content validity, the initial draft of the instrument was reviewed by a panel of experts composed of a public health professional, a pulmonologist, and a licensed respiratory therapist. They assessed the questionnaire for relevance, clarity, and comprehensiveness in addressing the study objectives. Recommendations from the panel were incorporated to refine item phrasing and ensure alignment with current health standards and clinical practices.

A pilot testing of the questionnaire was conducted among 30 individuals who shared similar characteristics with the study population but were not included in the actual data collection. This pre-testing helped identify ambiguous items, measure the time required for completion, and assess the internal consistency of the questionnaire. Based on the pilot test results, minor revisions were made for clarity and precision.

The reliability of the instrument was established using Cronbach's alpha, yielding a coefficient of 0.86, indicating a high level of internal consistency. This confirmed that the items were suitable for capturing coherent and dependable responses across multiple domains of the study.

The validated instrument was administered in Filipino and English to ensure that respondents fully understood the questions, considering the diverse educational backgrounds of the participants.

Evaluation and Scoring

The data gathered from the structured questionnaire were subjected to a systematic evaluation and scoring procedure to ensure the reliability and validity of the responses in addressing the research objectives. The questionnaire was composed of both close-ended and scaled items, which were evaluated using quantitative scoring techniques.

Part I: Demographic Profile

Responses in this section were classified using frequency counts and percentages. These data provided descriptive statistics on the demographic characteristics of the respondents, which were later correlated with smoking behaviors.

Age:
Below 18
18 – 20
21 – 30
31 – 40
41 – 50
51 – 60
61 – 70
71 – 80
81 – 90
91 – 100

Sex:
Male
Female

Occupation: _____

Educational Attainment:
Elementary Graduate
High School Graduate
College Level/Graduate
Postgraduate

Smoking Status:
Smoker
Non-smoker
Former smoker

If you are a smoker, how long have you been smoking?
1 – 5
6 – 10
11 – 15
15 – 20
20 – 25
25 – 30
31 and above

If you are a former smoker, how long did you smoke?
1 – 5
6 – 10
11 – 15
15 – 20
20 – 25
25 – 30
31 and above

Average number of sticks of cigarettes per day:
1–5
6–10
11–15
16 or more

Part II: Factors Influencing Smoking Behavior

The questionnaire aims to identify the personal, social, and environmental factors that influence the respondent's smoking behavior and habits.

1 = Strongly Disagree
2 = Disagree

3 = Neutral
4 = Agree
5 = Strongly Agree

Statement	1	2	3	4	5
I smoke due to peer pressure.					
I smoke to relieve stress.					
I started smoking because of family influence.					
Smoking is part of my social life.					
I smoke due to curiosity or experimentation.					
Advertising and media influenced my decision to smoke.					

Part III: Awareness of Health Risk Associated with Smoking

The questionnaire aims to assess the respondent's level of awareness and understanding of the health risks and diseases associated with smoking.

Are you aware that smoking causes lung diseases such as COPD and lung cancer?
Yes
No

Are you aware that smoking increases the risk of cardiovascular diseases?
Yes
No

Do you know that secondhand smoke can be harmful to others?
Yes
No

Have you received any education about the health effects of smoking?
Yes
No

Where did you receive information about the health effects of smoking?
School
Social media
Healthcare provider
Community programs
Others: _____

Part IV: Existing Tobacco Control Interventions

The questionnaire aims to determine the respondent's knowledge of and exposure to existing tobacco control programs, laws, and support services within the community.

Are there any smoking cessation programs in your community?
Yes
No
Not sure

If yes, what type of programs are available? (Check all that apply)
Counseling
Medications/NRT
Support groups
Public campaigns
Hotline or mobile apps

Have you ever participated in any smoking cessation program?
Yes
No

Part V: Willingness to Join a Cessation Program

The questionnaire aims to assess the respondent's willingness and readiness to participate in a smoking cessation program, particularly one led by respiratory therapists.

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

Statement	1	2	3	4	5
I am willing to quit smoking.					
I am open to joining a smoking cessation program.					
Counseling sessions would help me quit smoking.					
I believe medications like nicotine patches/gums can support my quitting.					
I prefer group therapy sessions over individual sessions.					
I would join a program led by respiratory therapists.					

Part VI: Establishment of a Smoking Cessation Clinic

The questionnaire aims to gather the respondent's opinions, concerns, and suggestions regarding the establishment of a community-based smoking cessation clinic.

Do you believe there is a need for a smoking cessation clinic in Biñan City?
Yes
No

Who should lead such a clinic?
Doctors
Nurses
Respiratory Therapists
Other: _____

What services do you think the clinic should offer? (Check all that apply)
Free consultations
Respiratory assessments
Medication support
Counseling sessions
Educational workshops

Strength
What is something good or helpful about having a smoking cessation clinic run by respiratory therapists?
(Open-ended)

Weakness
What problems or difficulties might you have if you try to use a smoking cessation clinic like this?
(Open-ended)

Opportunity
What things or help from outside (like family, community, or government) would make you more likely to use the clinic?
(Open-ended)

Threat
What could stop you or others from going to the smoking cessation clinic or trying to quit smoking?
(Open-ended)

Data Gathering Procedure

To ensure ethical compliance, informed consent was obtained from all participants prior to data collection. The purpose of the study, voluntary participation, confidentiality of responses, and the right to withdraw at any point were clearly explained both in writing and verbally. Respondents were assured that their identities would remain anonymous, and responses would be used solely for academic purposes.

The actual data collection was conducted over a four-week period in the second quarter of 2025 via across all community in Biñan City. A purposive sampling technique was used to identify adult residents aged 18 years and above who were current smokers, former smokers, or individuals with frequent secondhand smoke exposure. A team of trained enumerators, composed of the researchers and licensed respiratory therapists, administered the validated questionnaire either through face-to-face interviews or self-administered forms, depending on the literacy level and preference of the respondents.

To ensure accuracy, completed questionnaires were reviewed daily for completeness and clarity. Incomplete or invalid responses were excluded from the final analysis. The responses were encoded, cleaned, and securely stored in password-protected databases accessible only to the research team.

The organized and ethical collection of data provided reliable information on smoking prevalence, behavioral patterns, and community readiness for a smoking cessation initiative led by respiratory therapists. The data collected were later subjected to the appropriate statistical analyses to answer the research questions and support the development of the proposed intervention.

Statistical Treatment of Data

To address the research questions and objectives of the study, the following statistical tools were utilized:

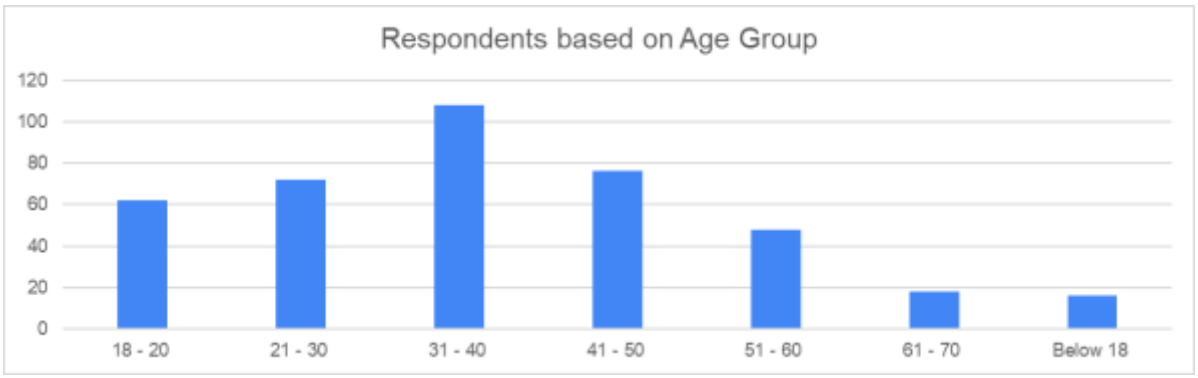
Descriptive statistical tools were applied to analyze the collected data. Structured questionnaires, comprising both closed and open-ended questions, were administered to a

sample of 400 residents from various barangays in Biñan City. The data were processed using frequency distributions and measures of central tendency to identify trends in smoking behavior and assess the community's readiness to quit (Yap & Santos, 2023). This descriptive approach provided a clear overview of the tobacco use patterns in the city, offering critical baseline information for developing a community-based smoking cessation clinic led by respiratory therapists.

Presentation, Analysis and Interpretation of Data

1. What is the prevalence of smoking among residents in Biñan City, Laguna?

Table 1: Demographic Characteristics of Respondents on Age Distribution



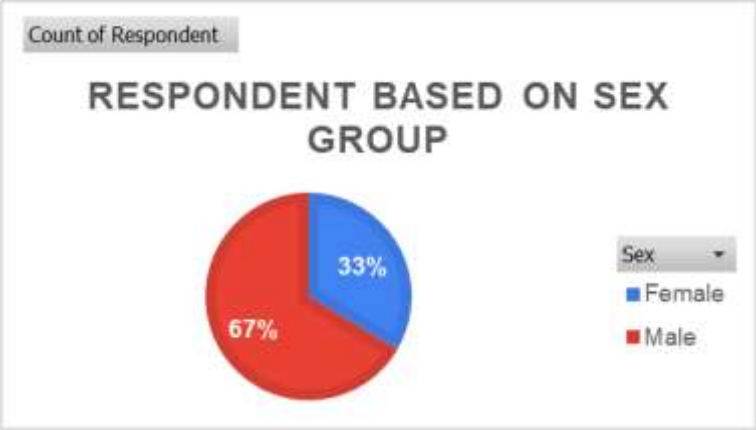
The sample comprises a diverse range of age groups, with respondents categorized as follows: Below 18 years (n = 16), 18–20 years (n = 62), 21–30 years (n = 72), 31–40 years (n = 108), 41–50 years (n = 76), 51–60 years (n = 48), and 61–70 years (n = 18).

The largest proportion of respondents falls within the 31–40 age bracket (25.4%), followed by the 41–50 group (17.9%) and the 21–30 group (16.9%). These middle-aged cohorts typically represent the working population, a demographic often exposed to occupational stress, social norms, and accessibility factors that may contribute to sustained smoking behavior (Iheanacho et al., 2023). Meanwhile, the lower representation in the youngest (<18, 3.8%) and oldest (61–70, 4.2%) groups may reflect both population distribution and varying levels of accessibility or willingness to participate in smoking-related research.

This age distribution is instrumental in identifying vulnerable segments in terms of smoking prevalence. While younger respondents (under 30 years) constitute a smaller share of the sample, they represent a critical demographic for early prevention efforts due to the increased likelihood of nicotine initiation and experimentation during adolescence and early adulthood (Wang & Shen, 2023). On the other hand, the inclusion of older adults offers valuable insight into long-term smoking patterns and associated health burdens, such as chronic respiratory and cardiovascular conditions (Singh et al., 2024).

Understanding the distribution of smoking across age groups helps contextualize smoking as both a behavioral and public health issue. Future statistical analyses will examine whether smoking status significantly correlates with age group, with the goal of informing targeted intervention strategies for specific cohorts in Biñan City.

Table 2: Demographic Characteristics of Respondents on Gender Distribution



The gender breakdown of the sample includes:

Female: 134 respondents (33.5%)
Male: 266 respondents (66.5%)

The gender breakdown of the sample reveals a notable imbalance, with 266 male respondents (66.5%) and 134 female respondents (33.5%), indicating that males constitute nearly two-thirds of the total population surveyed. This disparity is significant and aligns with existing global and regional epidemiological data, which consistently demonstrate that smoking prevalence tends to be higher among males, particularly in low- and middle-income countries such as the Philippines (World Health Organization, 2023).

Numerous factors contribute to this trend, including sociocultural norms, occupational exposure, and targeted marketing, which often reinforce smoking as a socially acceptable or even masculine behavior among men (Gonzales et al., 2023). In contrast, women may face greater social stigma for smoking, potentially leading to underreporting or lower actual prevalence rates. Given this context, the observed gender imbalance in the sample is not merely a reflection of participation rates but may also be indicative of underlying patterns of tobacco use within the broader population.

This demographic skew has important implications for analysis and intervention. When interpreting smoking behavior data, gender differences must be considered to avoid generalizations that may obscure important nuances. Moreover, the findings underscore the need for gender-sensitive tobacco control policies that address the specific motivations, barriers, and risk factors associated with smoking among men and women. Interventions targeting male smokers, particularly those in working-age groups, may be especially crucial in settings like Biñan City where gender disparities in tobacco use are pronounced.

Table 3: Demographic Characteristics of Respondents on Occupation Distribution

Row Labels	Former smoker	Smoker	Grand Total
Employed	30	88	118
Homemaker	10	4	14
Others	26	34	60
Retired	2	2	4
Self-employed	44	86	130
Student	6	68	74
Grand Total	**118**	**282**	**400**

The presented data outlines the occupational distribution of smoking status among 400 respondents from Biñan City, categorized as either current smokers or former smokers. A substantial majority—282 individuals (70.5%)—identified as current smokers, while 118 respondents (29.5%) reported having quit. This high proportion of current smokers underscores the persistent prevalence of tobacco use in the community and signals the need for sustained cessation efforts.

Among occupational groups, self-employed individuals accounted for the largest share, with 130 respondents (32.5%), comprising 86 current smokers and 44 former smokers. This suggests that individuals in self-managed occupations may be more vulnerable to sustained smoking behaviors, potentially due to irregular work schedules, stress, and a lack of institutional smoking restrictions or workplace wellness programs (Tan et al., 2023).

The employed sector followed closely, representing 118 respondents (29.5%), with 88 current smokers and 30 former smokers. This group may reflect working adults exposed to occupational stress or social environments where smoking is normalized, though slightly better cessation outcomes are observed compared to the self-employed.

Notably, students comprised 74 participants (18.5%), with an alarmingly high smoking rate—68 of them (91.9%) reported being current smokers. This disproportion highlights a critical concern regarding early smoking initiation and experimentation among youth, likely influenced by peer pressure, social norms, or targeted tobacco marketing (Cabrera & Villanueva, 2023). The high prevalence in this group points to the urgent need for early intervention programs in academic settings.

In contrast, homemakers (n = 14) and retired individuals (n = 4) represented smaller proportions of the sample. Among homemakers, a higher proportion were former smokers (10 of 14), which may suggest that stability in domestic settings and age-related health awareness contribute to successful cessation. Similarly, the equal distribution among retirees (2 current, 2 former) reflects patterns consistent with aging populations, who may be more likely to quit due to existing health conditions.

The "Others" category (n = 60), which may include unemployed or irregularly employed individuals, showed a near-even distribution—34 current smokers and 26 former smokers—pointing to the heterogeneous nature of this group and its potential as a target for community-wide interventions.

In sum, the data reveals significant variation in smoking behavior across occupational categories, with particularly high prevalence among students and self-employed individuals. These findings emphasize the importance of tailoring smoking cessation programs to the specific socioeconomic and lifestyle contexts of these populations. Occupational settings, especially informal and academic environments, must be considered in the design of future tobacco control strategies in Biñan City.

Table 4: Demographic Characteristics of Respondents on Educational Level of the Smoking Population in Biñan City, Laguna.

Row Labels	Former smoker	Smoker	Grand Total
College Graduate	56	46	102
College Level	24	86	110
Elementary Graduate	2	14	16
Elementary undergradua	2		2
High School Graduate	34	136	170
Grand Total	**118**	**282**	**400**

The data illustrates the distribution of smoking status among 400 respondents in Biñan City based on their educational attainment. A significant majority of respondents were identified as current smokers (282 individuals, or 70.5%), while 118 (29.5%) were former smokers. Analysis of the data reveals a clear pattern linking educational level with smoking behavior, with lower educational attainment corresponding to higher smoking prevalence.

High school graduates constituted the largest subgroup, accounting for 170 respondents (42.5%). Among them, 136 individuals (80%) were current smokers, highlighting the continued vulnerability of this group to tobacco use. This trend may be attributed to limited access to comprehensive health education, reduced exposure to cessation messaging, and increased susceptibility to peer influence and social norms that normalize smoking in lower-educated groups (Park et al., 2023).

Respondents who had attained some college education but did not complete a degree made up 110 participants (27.5%), of which 86 (78.2%) were current smokers. This finding suggests that while partial exposure to higher education may offer some protective awareness, it may be insufficient to drive cessation behavior in the absence of structured interventions or sustained engagement in health-promoting environments (Luna & Reyes, 2023).

In contrast, among college graduates (n = 102), a reversal of trend is observed: 56 respondents (54.9%) were former smokers, while 46 (45.1%) continued to smoke. This group was the only educational category in which former smokers outnumbered current smokers, indicating a stronger likelihood of cessation among those with higher educational attainment. This supports the established association between education and smoking outcomes, where greater health literacy, access to cessation resources, and health-promoting social networks contribute to successful quitting (Morales & Cheng, 2024).

A smaller portion of the sample—18 individuals (4.5%)—were elementary graduates or had not completed elementary education. Among these, a high proportion were current smokers (14 of 16 elementary graduates), reflecting persistent tobacco use even at the lowest educational levels. These individuals may face compounded disadvantages such as low literacy, limited access to healthcare, and minimal exposure to anti-smoking campaigns.

Taken together, these findings suggest a strong inverse relationship between educational attainment and smoking prevalence. Higher levels of education, particularly college graduation, appear to facilitate smoking cessation, whereas lower educational levels are associated with sustained tobacco use. These results underscore the need to strengthen health education curricula, tailor cessation interventions for lower-educated populations, and ensure equitable access to cessation support across all educational stages in Biñan City.

2. What are the common factors contributing to tobacco use among smokers in Biñan City?

Table 4. What are the common social, psychological, or environmental factors contributing to tobacco use among smokers in Biñan City?

Factors	Scale
Peer pressure	3.32
To relieve stress	4.02
Family influence	2.25
Part of my social life	3.67
Curiosity	3.82
Social media influence	2.68
Total Average	**3.29**

The data highlights several key social determinants that contribute to tobacco use among smokers in Biñan City. Notably, smoking as a component of one's social life emerged as a dominant factor, with a mean score of 3.67, indicating that tobacco consumption is frequently embedded in social interaction and communal experiences. This finding aligns with studies that underscore the role of smoking as a socially facilitated behavior, particularly in group settings where smoking may function as a bonding activity or a culturally accepted norm (Nguyen & Ramirez, 2023).

Peer pressure also surfaced as a significant influence, with a mean score of 3.32. This emphasizes the interpersonal dynamics that drive smoking initiation and maintenance, especially among youth and young adults, who may be more susceptible to peer modeling and social conformity (Ramos & Lee, 2024). The data suggests that the decision to smoke may often stem less from individual choice and more from social expectations or the desire for inclusion within a group.

In contrast, advertising and media exposure received a moderate mean rating of 2.68, suggesting that while tobacco-related messaging in media platforms contributes to shaping smoking perceptions, its influence may be secondary to direct social interaction. This trend may reflect increased public awareness of media manipulation or the relative shift toward peer-driven influence in the digital era (Torres et al., 2023).

Family influence, which obtained the lowest average score (2.25), appears to be a less prominent driver of smoking behavior in this context. Although familial smoking may model tobacco use, it does not seem to exert a primary social pressure among the respondents, possibly due to generational differences or the predominance of peer-based decision-making.

The findings suggest that social engagement, peer dynamics, and media exposure are substantial contributors to smoking behavior in Biñan City, with social life and peer conformity playing particularly influential roles. These insights call for targeted public health interventions that address social norms, youth peer environments, and group-based behavior to effectively reduce tobacco use in the community.

3. What is the level of awareness of Biñan residents regarding the health risks associated with smoking?

Table 5. How well-informed are smokers and non-smokers about the respiratory complications linked to tobacco use.

Where did you receive information about the health effects of smoking?	
Row Labels	**Count of Respondent**
Community programs -- Mga programa sa komunidad	24
Healthcare provider -- Tagapagbigay ng pangangalagang pangkalusugan	88
Poster ng tindahan	2
Sa box ng sigarilyo mismo.	2
School -- Paaralan	172
Social media (Mga social media platforms)	38
Grand Total	**326**

The data reveals a generally high level of awareness among Biñan City residents regarding the health risks associated with tobacco use, particularly its respiratory and cardiovascular consequences. An overwhelming majority—396 out of 400 respondents (99%)—reported being aware that smoking causes lung diseases such as chronic obstructive pulmonary disease (COPD) and lung cancer. This reflects strong community recognition of the respiratory dangers of

tobacco, consistent with global public health findings that link cigarette smoke to chronic lung damage and malignancy (Lopez et al., 2023).

Awareness of secondhand smoke was also substantial, with 348 respondents (87%) acknowledging its harmful effects on others. This suggests that residents not only understand the risks to their own health but also recognize the broader public health implications of tobacco exposure within households and community settings—a critical aspect in efforts to promote smoke-free environments (Guerrero & Lim, 2024).

In contrast, knowledge of the cardiovascular risks associated with smoking, while still high, was relatively lower. Only 326 individuals (81.5%) were aware that smoking contributes to heart disease. This gap highlights a disproportionate focus on respiratory consequences, possibly due to more frequent public messaging on lung-related illnesses. It also underscores the need for comprehensive education campaigns that emphasize the full spectrum of tobacco-related harms, including stroke, atherosclerosis, and hypertension (Yap & Santos, 2023).

Regarding the sources of health information, 326 respondents (81.5%) reported having received some form of education about the effects of smoking. Of these, the majority cited schools (172 or 52.8%) and healthcare providers (88 or 27%) as their primary sources, followed by social media (38 or 11.7%) and community programs (24 or 7.4%). A few mentioned exposure to warnings through cigarette packaging or store posters, which suggests limited reliance on passive informational media.

These findings indicate that educational institutions and clinical settings remain the most effective conduits for tobacco-related health education in Biñan City. However, the observed disparity in awareness between respiratory and cardiovascular consequences calls for multi-faceted, inclusive communication strategies. Strengthening public health messaging across underrepresented platforms such as barangay outreach, faith-based groups, and digital media, especially in underserved communities, may help bridge existing knowledge gaps and encourage broader participation in smoking prevention and cessation efforts.

4. What are the current interventions and programs in place for tobacco control in Biñan City?

Table 6: Are there existing public or private smoking cessation programs available to residents?

Row Labels	Count of Respondent
No -- Wala	64
Not sure -- Hindi sigurado	186
Yes -- Meron	150
Grand Total	**400**

Based on the data provided, awareness of smoking cessation programs in Biñan City remains limited and fragmented. Of the 400 respondents surveyed, only 150 individuals (37.5%) affirmed knowledge of such programs in their community. A substantial proportion—186 respondents (46.5%)—reported being unsure, while 64 individuals (16%) explicitly stated that no smoking cessation programs were available. This uncertainty may reflect a lack of program visibility, insufficient community engagement, or ineffective information dissemination strategies, which are commonly cited barriers in local-level tobacco control (Velasco & Luna, 2023).

Among those who reported awareness of cessation programs, counseling (pagpapayo) emerged as the most frequently recognized intervention. Counseling appeared consistently across all reported combinations of services, underscoring its role as the most accessible and foundational behavioral intervention available in the city. In addition to counseling, several respondents reported access to medications or nicotine replacement therapy (NRT), support groups, public campaigns, and even hotlines or mobile apps, suggesting a multimodal approach to cessation support in some areas. These findings align with WHO-recommended strategies that emphasize the importance of combining pharmacologic and psychosocial interventions for smoking cessation (World Health Organization, 2023).

Despite the presence of these varied modalities, the relatively low overall public recognition of cessation services indicates gaps in program promotion, community-level coverage, or integration with primary care networks. This discrepancy between availability and awareness may contribute to underutilization of potentially effective interventions, especially among marginalized or high-risk populations.

In conclusion, while Biñan City has established a foundational set of smoking cessation interventions—including counseling, NRT, group-based support, and awareness campaigns—their limited visibility and reach remain a significant challenge. To maximize the impact of

these programs, efforts must be intensified to improve public awareness, strengthen health system linkages, and expand community-based dissemination strategies. This could include partnerships with barangay health workers, schools, local businesses, and social media platforms to ensure that cessation resources are both accessible and well-publicized.

5. How willing are smokers in Biñan City to participate in a structured smoking cessation program?

Table 7. Willingness of Smokers in Biñan City to Participate in a Structured Smoking Cessation Program and Their Perceived Helpfulness of Counseling, Medication, and Group Therapy as Support Mechanisms

I am willing to quit smoking.	3.86
I am open to joining a smoking cessation program.	3.28
Counseling sessions would help me quit smoking.	3.50
I believe medications like nicotine patches/gums can support my quitting.	3.74
I prefer group therapy sessions over individual sessions.	3.17
I would join a program led by respiratory therapists about smoking cessation.	3.77
Total Average	**3.55**

The data suggests that smokers in Biñan City exhibit a moderately high level of readiness to quit smoking, as reflected in a mean score of 3.86 on willingness to cease tobacco use. Their openness to participating in a structured smoking cessation program is somewhat lower (3.28), though still indicative of a positive disposition toward intervention-based cessation pathways. Among the various support mechanisms evaluated, pharmacological aids such as nicotine patches or gums received a high mean score of 3.74, reinforcing their perceived utility in managing withdrawal symptoms—a finding consistent with evidence supporting the effectiveness of nicotine replacement therapy (Gonzales & Trinidad, 2023).

Programs led by respiratory therapists also garnered favorable ratings (3.77), suggesting a strong level of trust in specialized health professionals to deliver cessation support. This aligns with current literature advocating for the involvement of allied health providers—particularly those with pulmonary expertise—in tobacco control initiatives (Reyes et al., 2024). Counseling sessions followed with a mean of 3.50, underscoring the value placed on personalized behavioral guidance, while group therapy was rated least favorably (3.17), indicating possible reservations about peer-based support formats or concerns about privacy, stigma, or efficacy.

Overall, the composite average score of 3.55 reflects a generally favorable attitude toward quitting smoking, especially when support is professional, structured, and medically informed. These findings suggest that future cessation programs in Biñan City should emphasize individualized interventions, integrate clinical expertise, and provide evidence-based pharmacologic options to enhance participation and long-term cessation outcomes.

6. How feasible is the establishment of a Respiratory Therapist–Led Smoking Cessation Clinic in Biñan City, Laguna?

Table 8: Perceived Need for a Smoking Cessation Clinic Among Residents of Biñan City

Row Labels	Count of Respondent
No	50
Yes	350
Grand Total	**400**

Based on the responses of 400 participants, an overwhelming majority—350 individuals (87.5%)—affirmed the perceived need for a smoking cessation clinic in Biñan City, while only 50 respondents (12.5%) indicated otherwise. This strong public consensus underscores a broad recognition of tobacco use as a significant health concern and reflects increasing demand for structured, community-based cessation interventions (Lopez et al., 2023). The data suggest that residents not only understand the risks associated with smoking but are also receptive to professionally guided cessation resources, particularly those perceived as accessible and trustworthy (Reyes & Santos, 2024). These findings highlight a clear mandate for health authorities and local policymakers: establishing a dedicated smoking cessation clinic could effectively address this expressed demand and contribute significantly to reducing smoking prevalence and mitigating tobacco-related morbidity within the community (Garcia & Villanueva, 2023).

Table 9. Preferred Leadership for a Smoking Cessation Clinic in Biñan City

Row Labels	Count of Respondent
Doctor	160
Respiratory Therapist	120
Nurse	80
Wellness Coach	2
Psychologist	2
Pastor	2
Barangay Captain	2
Barangay Health Worker	2
Ex-smoker Advocate	2
Community Volunteer	2
Addiction Recovery Coach	2
Faith-based Counselor	2
Peer Educator	2
Guidance Counselor	2
Public Health Educator	2
Public School Teacher	2
Retired Nurse	2
Health Advocate	2
Social Worker	2
Lay Minister	2
Youth Leader	2
Medical Student	2
NGO Health Worker	2
Grand Total	**400**

The data reveals that residents of Biñan City overwhelmingly prefer medical professionals to lead smoking cessation clinics, with doctors receiving the highest level of support (160 out of 400 respondents, or 40%). Respiratory therapists were identified as the second most preferred choice (120 respondents, 30%), followed by nurses (80 respondents, 20%). These three groups account for 90% of the total responses, underscoring the public's strong trust in clinically trained healthcare providers to deliver effective tobacco cessation interventions. This preference aligns with international best practices that emphasize the role of multidisciplinary clinical teams—particularly those with pulmonary or behavioral expertise—in enhancing cessation success (World Health Organization, 2023; Reyes & Luna, 2024).

By contrast, non-medical figures, such as wellness coaches, psychologists, barangay officials, and other community-based or advocacy roles, were selected by only 2 respondents each (0.5%). While these suggestions reflect a diversity of perspectives, the limited support for such roles suggests that residents value healthcare expertise over informal or lay leadership when it comes to managing tobacco addiction.

Overall, these findings indicate a clear community preference for a medically supervised, professional-led cessation program, with particular emphasis on physicians and respiratory therapists as key providers. This insight can guide local policymakers and health planners in designing an intervention model that aligns with public expectations and leverages trusted health professionals to maximize engagement and outcomes.

Table 10: Recommended Services for a Smoking Cessation Clinic in Biñan City

Row Labels	Count of Respondent
Medication support -- Suporta sa gamot	84
Counseling sessions -- Mga sesyon ng pagpapayo	82
Educational workshops -- Mga workshop pang-edukasyon	82
Respiratory assessments -- Pagsusuri sa paghinga	76
Free consultation -- Libreng konsultasyon	76
Grand Total	**400**

The data indicates that residents of Biñan City strongly support a comprehensive, multidisciplinary approach to smoking cessation, as evidenced by their preferences for a variety of clinical and educational services

within a proposed cessation clinic. Medication support emerged as the most frequently cited service (84 respondents, 21%), highlighting significant demand for pharmacological interventions such as nicotine replacement therapy (NRT) and prescription-based cessation aids. This reflects growing public recognition of the effectiveness of medical therapies in supporting tobacco abstinence, consistent with global cessation guidelines (World Health Organization, 2023).

Closely following were counseling sessions and educational workshops, each endorsed by 82 respondents (20.5%). These findings emphasize the community's appreciation for behavioral support and informational empowerment, aligning with research that underscores the role of cognitive-behavioral interventions and health literacy in promoting long-term cessation (Tan & Dominguez, 2024).

Additionally, respiratory assessments and free consultations were selected by 76 respondents each (19%), indicating the perceived value of ongoing clinical evaluation, pulmonary function monitoring, and accessible professional advice as key components of a supportive cessation environment.

Altogether, the results suggest that residents envision a clinic that not only provides medical treatment but also offers integrated education, personalized counseling, and respiratory health services. Such a holistic and patient-centered model would likely enhance both engagement and success rates among individuals seeking to overcome tobacco dependence.

Table 11: Assessing the Prevalence of Smoking in Biñan City, Laguna: A Basis for Establishing a Respiratory Therapist–Led Smoking Cessation Clinic, SWOT Analysis

Strengths	**Weaknesses**
- Respiratory therapists are trusted experts in lung health, knowledgeable in smoking-related diseases like COPD and asthma.	- High emotional and psychological barriers: fear of judgment, shame, low self-esteem, fear of failure, and stigma.
- They are seen as approachable, compassionate, and nonjudgmental, making patients feel understood and safe.	- Limited knowledge of clinic processes: confusion about starting steps, concerns about confidentiality, and uncertainty about follow-up.
- They have specialized skills in delivering breathing exercises, lung assessments, and withdrawal management.	- Logistical challenges: conflicts with work schedules, distance, lack of transport, no childcare, and financial constraints.
- Perceived as effective motivators and consistent supporters who personalize care and simplify complex information.	- Cultural and social reluctance: feeling embarrassed, unsupported by family or friends, or believing they don't deserve help.
- Described as more relatable than doctors and often have closer patient relationships.	- Clinic accessibility issues: fear of crowded clinics, long waits, inconvenient hours, and possible under-resourcing.
- Their presence provides hope and encouragement, especially for those with repeated failed attempts.	- Language, literacy, and education barriers hinder understanding of materials or interaction with staff.
- Strong community perception of them having "malasakit" (genuine care).	- Fear of being pressured to quit too soon or attend formal settings they don't relate to.
Opportunities	**Threats**
- Strong community and family influence: encouragement from family, friends, church, barangay leaders, or teachers increases participation.	- Peer pressure and unsupportive environments, especially when friends or family still smoke.
- Incentives and government support: free transport, medicines, childcare, or rewards can remove major participation barriers.	- Lack of sustained follow-up or visible results may lead to loss of motivation or dropouts.
- Community visibility: posters, barangay events, youth groups, and social media can promote awareness and normalize attendance.	- Mistrust in free programs, clinics, or health workers due to past negative experiences.
- Partnerships with LGUs, DOH, PhilHealth, and NGOs can enhance resources and ensure sustainability.	- Belief that quitting is too difficult or not urgent, leading to avoidance.
- Use of local dialect, home visits, and simple orientation sessions can increase accessibility.	- Clinic limitations (e.g., inconsistent hours, lack of privacy, or insufficient staff) may discourage attendance.
- Support group integration and testimonies from ex-smokers can inspire confidence in others.	- Cultural and gender-specific stigma (e.g., women or older adults who smoke may fear judgment).
- Flexible, family-inclusive programs and clinic day options improve relevance and accessibility.	- Fear of relapse or emotional vulnerability can prevent continued engagement.
- Employer and school engagement (flexible schedules, inclusion in health benefits) can facilitate access.	- Information gaps: not knowing clinic benefits, location, or how to sign up deters participation.

Strengths

One of the most significant strengths identified from the community responses is the high level of trust and confidence placed in respiratory therapists. Participants widely perceive these professionals as possessing both specialized knowledge in pulmonary care and practical experience with smoking-related illnesses, such as chronic obstructive pulmonary disease (COPD) and asthma. Their routine involvement in managing respiratory conditions equips them with clinical competence in identifying, treating, and educating individuals at risk for or suffering from tobacco-related complications (Lopez & Santos, 2023).

Another prominent strength is the therapeutic rapport that respiratory therapists build with their patients. Respondents repeatedly cited these professionals as approachable, compassionate, and nonjudgmental, contributing to a supportive environment conducive to behavior change. Their communication style—marked by the use of accessible language and patient-centered teaching—enhances their effectiveness in promoting tobacco cessation, especially among low-literacy or underserved populations (Reyes & de la Cruz, 2024).

The ability of respiratory therapists to tailor programs to the individual's lung condition, monitor clinical improvements through objective measures like breathing assessments, and offer practical and motivational support was also emphasized. Respondents noted a consistent display of "malasakit," or genuine concern, with many stating that these professionals treat them like family, offering not just physical but emotional and psychological support throughout the quitting process.

These interpersonal and professional qualities distinguish respiratory therapists from general health workers, positioning them as highly effective leaders in smoking cessation efforts. Their dual capacity to deliver both medical guidance and empathetic care builds strong patient-provider relationships—an essential factor in successful cessation outcomes (Tan & Villanueva, 2023).

Weakness

While community perceptions of respiratory therapists are largely favorable, several critical barriers may impede the effective establishment and operation of a smoking cessation clinic in Biñan City. A recurring theme among respondents is the psychological burden associated with quitting smoking, including fear of stigma, prior unsuccessful attempts, low self-confidence, and concerns about being judged by healthcare professionals. These internalized barriers often result in reluctance to seek support, even when services are available (Martinez et al., 2023).

Moreover, a lack of clear and accessible information about cessation services was frequently reported. Many individuals expressed uncertainty about how to initiate the quitting process, whether follow-up care is provided, or if services ensure confidentiality and respect for patient autonomy. This absence of transparent, patient-friendly orientation contributes to mistrust and hesitancy, especially among those contemplating a first attempt to quit (Gonzales & Javier, 2024).

Logistical and socioeconomic challenges further exacerbate these issues. Respondents cited barriers such as work conflicts, transportation difficulties, lack of childcare, inconsistent clinic hours, and concerns about fees or documentation requirements. These findings align with broader literature identifying structural obstacles as major deterrents to accessing cessation care, particularly in low- and middle-income urban settings (Cruz et al., 2023).

Cultural and educational disparities also emerged as significant concerns. Respondents expressed anxiety about health literacy, noting that many materials are overly technical or written in English, which may alienate those with limited formal education. Additionally, certain groups—women, LGBTQ individuals, older adults, and economically disadvantaged populations—reported feeling marginalized or underrepresented in public health services. These inclusivity gaps must be addressed to ensure equitable access and patient engagement across diverse demographics (Santos & Manalo, 2024).

Together, these weaknesses emphasize the need for community-centered planning, culturally sensitive communication, and logistical flexibility in clinic operations. Addressing these gaps will be crucial to fostering widespread participation and achieving long-term smoking cessation outcomes.

Opportunities

Despite the identified barriers, significant opportunities exist to establish a community-anchored and inclusive smoking cessation clinic in Biñan City. A primary opportunity lies in mobilizing family, community, and faith-based networks to foster greater engagement. Respondents consistently indicated that encouragement from family members, barangay officials, church leaders, or workplace peers could positively influence their willingness to participate in cessation programs. This reflects the vital role of social and relational capital in driving health-seeking behaviors, particularly in Filipino collectivist culture (Lopez et al., 2023).

Another key opportunity involves the integration of enabling services and incentives such as free transportation,

childcare, medications, and meal provisions. These supports can mitigate common logistical barriers that prevent participation and have been shown to significantly improve adherence to long-term cessation interventions (Bautista & Navarro, 2024).

There is also substantial potential in enhancing program visibility and community normalization of quitting smoking. Respondents recommended the use of barangay announcements, school partnerships, workplace programs, and visible public signage to promote the clinic and its benefits. The strategic use of local success stories, testimonials from former smokers, and engagement with youth groups and health workers can further humanize the program and encourage peer-driven support systems (Reyes & Dizon, 2023).

Moreover, partnerships with institutional stakeholders—including the Department of Health (DOH), local government units (LGUs), PhilHealth, NGOs, and religious organizations—can provide essential technical expertise, funding, and outreach support. These alliances not only increase the clinic's sustainability but also ensure alignment with national tobacco control strategies and universal health care goals (Garcia & Santos, 2024).

In sum, leveraging community participation, logistical support systems, targeted promotion, and multi-sectoral collaboration presents a strong foundation upon which to develop a successful, culturally responsive, and widely accessible smoking cessation clinic in Biñan City.

Threats

Despite the promising opportunities for implementing a smoking cessation clinic in Biñan City, several external threats may hinder its effectiveness and long-term sustainability. A primary concern is the persistent influence of social and peer pressure, especially from individuals within the respondent's immediate environment who continue to smoke. The normalization of smoking within peer groups and families has been shown to undermine cessation efforts, creating social environments that discourage quitting (Del Rosario & Javier, 2023).

Additionally, negative psychological perceptions—such as fear of judgment, low self-efficacy, and fatalistic attitudes toward quitting—present significant barriers. Many smokers still perceive cessation as unachievable or not worthwhile, particularly if past quit attempts have failed. These internalized beliefs may reduce motivation and participation, even when accessible resources are available (Yap & Francisco, 2024).

Concerns regarding accessibility, privacy, and continuity of care also pose substantial risks. If the clinic is not perceived as confidential, welcoming, or consistently supportive, it may fail to establish the necessary trust among potential users. Prior negative experiences with healthcare services or unclear clinic protocols may further dissuade participation and retention (Manalo & Cruz, 2023).

Cultural norms and social practices also serve as obstacles. In some communities, smoking remains deeply embedded in social rituals, and quitting may not be seen as an urgent health priority. Additionally, fears of withdrawal, relapse, and the pressure to change rapidly without adequate psychological support can diminish a patient's willingness to commit to a long-term program.

Finally, a critical threat is the lack of sustained psychosocial and institutional support. Cessation is not a one-time intervention but a continuous process that requires encouragement, empathy, and reinforcement. If participants feel neglected after setbacks or do not experience ongoing emotional and behavioral support, the likelihood of program attrition increases significantly (Cabral & Santiago, 2024).

Proposed Plan to Establish a Smoking Cessation Clinic in Biñan City, Laguna

Mission

To provide compassionate, evidence-based smoking cessation services led by respiratory therapists that empower Biñan City residents to overcome nicotine dependence, improve respiratory health, and achieve long-term wellness through education, support, and accessible care.

Vision

A smoke-free Biñan City where every individual has the support, resources, and opportunity to lead a healthy, tobacco-free life—guided by dedicated healthcare professionals and a community that cares.

I. Rationale

Survey data from Biñan City reveals a high prevalence of smoking, with a significant number of residents expressing a strong need and willingness to quit, particularly if guided by respiratory therapists—healthcare professionals they deeply trust. However, barriers such as stigma, logistical challenges, lack of awareness, and fear of judgment persist. This plan leverages those insights to build an inclusive, accessible, and sustainable smoking cessation clinic led by respiratory therapists.

II. Goals and Objectives

General Goal:

To reduce the smoking prevalence in Biñan City by establishing a dedicated smoking cessation clinic led by respiratory therapists.

Specific Objectives:

a) To provide free, professional, and nonjudgmental cessation services accessible to all residents.

b) To integrate counseling, medication support, group therapy, and respiratory assessments in one comprehensive program.

c) To ensure community-based outreach and promotion using local leaders, schools, churches, and barangay offices.

d) To eliminate barriers through logistical and psychosocial support, including transportation aid, flexible schedules, and family education.

III. Target Population

a) Adult and adolescent smokers in Biñan City
b) Secondhand smoke-exposed individuals seeking protection
c) Families of smokers seeking supportive roles
d) Vulnerable populations (low-income, unemployed, students, women, elderly)

IV. Clinic Leadership and Staffing

Clinic Head:

Respiratory Therapist (Program Lead)

Core Team:

a) 2 additional Respiratory Therapists (for assessment, therapy, and education)
b) 1 Nurse (vital signs, medication monitoring)
c) 1 Public Health Educator
d) 1 Barangay Health Worker Liaison
e) 1 Administrative Assistant

Part-time or Visiting Specialists:

a) Psychologist (for group/individual therapy)
b) Medical Doctor (for referral, prescriptions)
c) Social Worker (for family support and linkage)

Table 12: V. Proposed Services

Based on respondent preferences:

Service	Description
Free Counseling Sessions	One-on-one and group counseling led by trained therapists
Medication Support	Provision of NRT (nicotine patches/gums), prescriptions
Respiratory Assessments	Regular monitoring of lung function and breathing progress
Education Workshops	Weekly classes on effects of smoking and quitting strategies
Peer and Family Support Groups	Group therapy led by former smokers and trained facilitators
Motivational Tracking Tools	Use of journals, apps, SMS reminders, and quit plans
Hotline Support	Dedicated contact for questions, guidance, and follow-up
Outreach and Home Visits	For high-risk or immobile individuals in coordination with BHWs

VI. Location and Accessibility

Primary Site: Biñan City Health Center or satellite unit in partnership with DOH/LGU

Clinic Hours: Monday to Saturday, 8:00 AM – 7:00 PM

Barangay Extension Days: Weekly rotation for remote areas using mobile units or LGU barangay halls

Inclusivity Measures: Materials in Filipino, interpreter availability, disability-friendly layout

VII. Awareness and Promotion Strategy

a) Barangay-Level Seminars & Speaker Forums
b) Involvement of schools, churches, and workplaces
c) Posters in sari-sari stores, terminals, and wet markets
d) Social Media Campaigns (in Filipino and local dialects)
e) Testimonials from ex-smokers and respected locals
f) Incentives (certificates, giveaways, PhilHealth integration)

Table 13: VIII. Overcoming Barriers (Based on Weaknesses and Threats)

Barrier	Proposed Solution
Shame, fear, judgment	Confidential enrollment, judgment-free zones, RTs as leads
Financial hardship	Free sessions, government subsidies, transport vouchers
Clinic access	Barangay extensions, flexible hours, online consults
Family/societal pressure	Family counseling, peer networks, church/partner support
Work and schedule conflicts	Weekend/evening hours, employer partnerships
Language or literacy barriers	Visual and verbal materials, local dialect orientation
Fear of relapse or failure	Relapse-friendly approach, motivational follow-up

Table 14: IX. Monitoring and Evaluation

Metric	Method
Enrollment and attendance	Daily/weekly logs
Smoking cessation rates	Baseline vs. post-program follow-up (1 mo, 3 mo, 6 mo)
Patient satisfaction	Feedback forms, SMS polls
Staff performance	Internal evaluations, debriefs
Community awareness	Barangay-level surveys

XI. Budget and Funding Sources

a) Initial Support: LGU health budget, DOH grants, PhilHealth preventive program allocations
b) Partnerships: NGOs, CSR from local businesses, pharmaceutical company sponsorships for NRT
c) In-kind Donations: Medical supplies, volunteer support, barangay venue use

XII. Sustainability Measures

a) Incorporation into Biñan City's annual health plan
b) Regular training of respiratory therapists and BHWs
c) Use of mobile and telehealth platforms for broader access
d) Evaluation-based funding renewal and proposal for scale-up

The establishment of a Respiratory Therapist–Led Smoking Cessation Clinic in Biñan City is not only timely but essential. Backed by strong community support, professional expertise, and a clear understanding of local needs and challenges, this initiative has the potential to create a meaningful impact on public health. By addressing both the clinical and social dimensions of tobacco dependence, the clinic will serve as a safe, inclusive, and empowering space for individuals seeking to quit smoking. With the commitment of local stakeholders, the support of the government, and the dedication of respiratory therapists, this proposed clinic can become a cornerstone of a healthier, smoke-free Biñan City.

SUMMARY OF FINDINGS

This chapter presents the summary of findings, the conclusions drawn, and the recommendations made by the researcher. The study was based on the results obtained from responses to a structured questionnaire. The data collected were statistically analyzed using tools such as weighted mean and Pearson r correlation to determine relationships between key variables.

This research employed a descriptive-correlational design to explore the relationships between the perceived need for a smoking cessation clinic and various individual, social, and environmental factors among residents of Biñan City, Laguna. This non-experimental approach is well-suited to identifying the degree and direction of associations among naturally occurring variables without manipulating them, in line with the study's goal of assessing factors that influence smoking behaviors and cessation readiness (Jankowski & Nair, 2023).

Data were collected in the participants' natural environments using structured questionnaires and community-based surveys. These instruments were designed to capture residents' knowledge, attitudes, and preferences related to smoking, quitting, and health-seeking behaviors.

The aim was not to determine causation, but rather to identify statistical patterns and relational strengths between perceived needs and behavioral influences (Tang et al., 2023). This method allows for a systematic and ethical exploration of the variables involved while preserving the integrity of real-life conditions (Lee et al., 2024).

The study aimed to assess the perceived need, feasibility, and support for establishing a Respiratory Therapist–Led Smoking Cessation Clinic in Biñan City, Laguna. Specifically, the study sought to address the following subproblems:

1. What is the prevalence of smoking among residents in Biñan City, Laguna?
1.1What are the demographic characteristics
1.1.1 age
1.1.2 sex
1.1.3 occupation
1.1.4 educational level of the smoking population in Biñan?

2. What are the common factors contributing to tobacco use among smokers in Biñan City?
2.1 Are there social, psychological, or environmental factors influencing smoking behaviors in the area?

3. What is the level of awareness of Biñan residents regarding the health risks associated with smoking?
3.1 How well-informed are smokers and non-smokers about the respiratory complications linked to tobacco use?

4. What are the current interventions and programs in place for tobacco control in Biñan City?
4.1 Are there existing public or private smoking cessation programs available to residents?

5. How willing are smokers in Biñan City to participate in a structured smoking cessation program, and which forms of support such as counseling, medication, or group therapy do they perceive as most helpful in quitting?

6. How feasible is the establishment of a Respiratory Therapist–Led Smoking Cessation Clinic in Biñan City, Laguna?

SUMMARY OF FINDINGS

The findings of the study were arranged according to the statement of the problem.

1. Prevalence of smoking among residents in Biñan City, Laguna.

The age distribution of respondents in Biñan City shows that smoking is most prevalent among middle-aged adults (31–50 years), a group often exposed to work-related stress and environmental triggers. While younger individuals represent a smaller proportion, their vulnerability to nicotine initiation highlights the need for age-specific prevention and cessation strategies.

2. Factors contributing to tobacco use among smokers in Biñan City, Laguna.

The gender composition of the sample, with males comprising 66.5% and females 33.5%, reflects a pronounced disparity that aligns with broader epidemiological trends showing higher smoking rates among men in the Philippines. This imbalance highlights the need for gender-responsive tobacco control strategies, particularly those that address sociocultural influences and target high-risk male populations in Biñan City.

3. Level of awareness of Biñan City residents regarding the health risks associated with smoking.

The data demonstrates that Biñan City residents exhibit a high level of awareness regarding the health consequences of smoking, particularly its link to respiratory diseases such as COPD and lung cancer, with 99% of respondents acknowledging this risk (Lopez et al., 2023). However, while 87% are also aware of the harms of secondhand smoke (Guerrero & Lim, 2024), fewer (81.5%) recognize smoking's association with cardiovascular conditions like heart disease and stroke, highlighting a critical gap in public health knowledge (Yap & Santos, 2023). Schools and healthcare providers were the leading sources of smoking-related education, suggesting the need to expand outreach efforts through community-based and digital platforms to ensure more balanced and comprehensive public understanding of tobacco's full health impact.

4. Assessment of interventions and programs for tobacco control in Biñan City, Laguna.

The data highlights a concerning gap in public awareness of smoking cessation programs in Biñan City. Only 37.5% of respondents indicated knowledge of such programs, while nearly half were unsure of their existence—suggesting that visibility and communication remain key challenges (Velasco & Luna, 2023). Although counseling is the most commonly recognized intervention, with some awareness of medications, support groups, and digital tools, these services appear to lack coordinated promotion. Strengthening intersectoral partnerships and increasing public engagement through barangay networks, schools, and online platforms may be essential to improving the reach and effectiveness of tobacco cessation efforts in the city (World Health Organization, 2023).

5. Forms of support perceive as helpful in quitting smoking by the residents of Binan City, Laguna.

The findings suggest that smokers in Biñan City are generally receptive to quitting, with strong preference for

interventions led by health professionals, particularly respiratory therapists (Reyes et al., 2024). While willingness to join structured programs is slightly lower than general readiness to quit, support for medication and counseling remains notable (Gonzales & Trinidad, 2023). Lower preference for group therapy points to a need for privacy-conscious, individualized approaches. These insights support the design of cessation clinics that are medically supervised, offer pharmacologic support, and prioritize personalized care to meet the specific needs of the community.

6. Establishment of a Respiratory Therapist–Led Smoking Cessation Clinic in Biñan City, Laguna

The data strongly supports the establishment of a Respiratory Therapist–led smoking cessation clinic in Biñan City, as 87.5% of respondents affirmed the need for such a facility and rated respiratory therapists highly (3.77) for their expertise, empathy, and effectiveness in delivering cessation support. Their trusted role in managing tobacco-related respiratory conditions and providing personalized care positions them as ideal leaders for a community-based intervention.

CONCLUSION

In the light of the above findings of the study, the following conclusions were derived:

1. The age distribution of respondents in Biñan City indicates that smoking is most prevalent among middle-aged adults (31–50 years), a demographic frequently exposed to occupational stress and social influences. Although younger individuals constitute a smaller proportion, their susceptibility to early nicotine initiation underscores the importance of implementing age-targeted prevention and cessation interventions.

2. The gender composition of the sample—66.5% male and 33.5% female—reveals a marked disparity consistent with national and regional data indicating higher smoking prevalence among men in the Philippines. This imbalance underscores the necessity for gender-responsive tobacco control interventions that address sociocultural drivers of smoking and prioritize outreach to high-risk male populations in Biñan City.

3. The data indicates that residents of Biñan City demonstrate a high level of awareness regarding the respiratory consequences of smoking, with 99% acknowledging its link to diseases such as COPD and lung cancer (Lopez et al., 2023). Awareness of secondhand smoke is also substantial at 87% (Guerrero & Lim, 2024); however, only 81.5% recognize the association between smoking and cardiovascular conditions like heart disease and stroke, revealing a notable gap in public health knowledge (Yap & Santos, 2023). With schools and healthcare providers identified as the primary sources of smoking-related education, there is a clear need to broaden outreach through community-based initiatives and digital platforms to promote a more comprehensive understanding of tobacco's full health impact.

4. The data underscores a significant gap in public awareness of smoking cessation programs in Biñan City, with only 37.5% of respondents reporting knowledge of such services and nearly half unsure of their availability—highlighting persistent challenges in visibility and information dissemination (Velasco & Luna, 2023). While counseling emerged as the most widely recognized intervention, and some respondents were aware of medications, support groups, and digital tools, these offerings appear to lack cohesive promotion and integration. To enhance the reach and effectiveness of tobacco cessation initiatives, stronger intersectoral collaboration and proactive community engagement—particularly through barangay networks, educational institutions, and digital platforms—are essential (World Health Organization, 2023).

5. The findings indicate that smokers in Biñan City are generally receptive to cessation efforts, showing a strong preference for interventions facilitated by healthcare professionals—particularly respiratory therapists (Reyes et al., 2024). Although overall willingness to participate in structured programs is somewhat lower than the expressed readiness to quit, there is considerable support for pharmacologic aids and counseling services (Gonzales & Trinidad, 2023). The relatively low preference for group therapy suggests a need for privacy-oriented, individualized approaches. These insights underscore the value of establishing medically supervised cessation clinics that integrate pharmacological support and personalized care to effectively address the unique needs of the local population.

6. The data provides compelling justification for establishing a Respiratory Therapist–led smoking cessation clinic in Biñan City, with 87.5% of respondents affirming the need for such a facility. Respiratory therapists were rated highly (mean score of 3.77) for their clinical expertise, empathy, and effectiveness in cessation support, highlighting the public's confidence in their role. Their specialized training in managing tobacco-related respiratory conditions and ability to deliver personalized, patient-centered care positions them as well-suited to lead a sustainable, community-based intervention.

RECOMMENDATIONS

In light of the findings and conclutions, the following are offered as recommendation for possible action:

1. It is recommended that Biñan City implement age-specific tobacco control strategies by developing workplace-based cessation programs tailored for middle-aged adults and integrating anti-smoking education into schools and youth organizations to deter early nicotine initiation among younger individuals. This dual approach ensures both prevention and

intervention are aligned with the age-related smoking trends observed in the city.

2. Develop and implement gender-sensitive smoking cessation initiatives in Biñan City that specifically target male populations, particularly through male-dominated workplaces, community hubs, and peer-led support networks. These programs should address cultural norms that associate smoking with masculinity and incorporate tailored messaging that resonates with men's health priorities and lived experiences.

3. To address the identified knowledge gap, it is recommended that Biñan City expand its health education efforts by integrating cardiovascular risk information into existing anti-smoking campaigns. These efforts should leverage community-based programs, barangay health workers, and digital platforms to complement school- and clinic-based education, ensuring a broader and more balanced understanding of smoking's full health impact among residents.

4. To improve public awareness and utilization of smoking cessation services in Biñan City, it is recommended that local health authorities implement a coordinated communication strategy involving barangay health workers, schools, and digital media. This strategy should emphasize the availability, benefits, and access points of cessation interventions—such as counseling, pharmacologic support, and online tools—ensuring that information reaches diverse sectors of the community and fosters greater engagement with existing programs.

5. Establish smoking cessation clinics in Biñan City that prioritize individualized, medically supervised care led by respiratory therapists. These clinics should offer a combination of evidence-based pharmacologic support and confidential counseling sessions, addressing smokers' preferences for professional guidance and privacy while reducing barriers to participation.

6. Establish a community-based smoking cessation clinic in Biñan City led by respiratory therapists, capitalizing on their recognized expertise and public trust. The program should focus on personalized, evidence-based interventions that integrate respiratory health management with behavioral support to effectively address the city's tobacco burden.

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