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Tuberculosis: The Case of Moncada, Tarlac

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Abstract

Aim: This research aimed to profile tuberculosis cases in Moncada, analyze infection patterns, evaluate government health programs, propose measures to reduce prevalence, and assess implications for health management.

Methodology: A qualitative case study investigated tuberculosis (TB) in Moncada, Tarlac, using interviews, document analysis, and focus groups. Data were collected from 30 TB patients, health policies were analyzed, and program implementers were interviewed to understand TB's impact and assess local health programs.

Results: The study revealed that TB in Moncada predominantly affected middle-aged males, with a significant reliance on accurate diagnosis and community support. It also highlighted challenges in socio-economic factors, treatment adherence, government program consistency, public awareness, and healthcare accessibility, alongside the need for enhanced patient-centered care and ongoing policy improvements.

Conclusion: The study concluded that addressing TB in Moncada required targeted interventions for middle-aged males, gender-specific programs, precise diagnostic practices, and comprehensive support systems. It emphasized the need for improved socio-economic support, medication accessibility, government program consistency, public awareness, and ongoing enhancements in diagnostic and policy frameworks.

Keywords: Tuberculosis (TB), Health Programs, Health Management, Patient-Centered Care, Policy Improvements

INTRODUCTION

Tuberculosis (TB) remained a major global health issue, with approximately 10.6 million new cases reported in 2022. Despite advancements in diagnostics and treatment, TB continued to be a leading infectious killer, particularly in Southeast Asia, Africa, and the Western Pacific. The global treatment success rate for drug-sensitive TB was 86% in 2021, but drug-resistant TB posed a significant challenge, with around 450,000 new cases of multidrug-resistant TB (MDR-TB) or rifampicin-resistant TB (RR-TB) in 2022. Preventive treatment and BCG vaccination coverage were crucial, yet funding for TB prevention, diagnosis, and treatment fell short of the required \$13 billion, highlighting the need for increased financial resources and political commitment (WHO, 2023).

In the Philippines, TB remained a pressing public health issue, with a TB incidence rate of 554 per 100,000 population in 2022. The country reported 612,534 new and relapse TB cases in 2023, reflecting an increase from the previous year. TB caused 15,689 deaths in 2022, underscoring the need for effective control measures. The Philippines, among the 30 countries with the highest TB burden, faced significant challenges due to factors such as poverty, rapid urbanization, and inadequate healthcare infrastructure (WHO, 2023). In particular, the Municipality of Moncada, Tarlac, reflected these broader national issues, characterized by high TB incidence rates and challenges in effective disease management.

Local health systems in Moncada struggled with fragmented data management and resource limitations, hindering TB detection and treatment efforts (Nezenega et al., 2020). Factors influencing TB prevalence in Moncada, Tarlac included inadequate healthcare infrastructure, diagnostic delays, medication resistance, stigma, and socioeconomic determinants. Efforts to raise awareness and reduce stigma were vital for improving TB control and encouraging prompt diagnosis and treatment (GMA News Online, 2024; Philippine News Agency, 2023; Roxas et al., 2023; Ogbuabor & Onwujekwe, 2019; Cremers et al., 2015). Additionally, issues such as inadequate patient education, stigma, and the need for better integration of health programs contributed to the persistence of TB in the



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area (Roxas et al., 2023; Cremers et al., 2015). Understanding these local dynamics and identifying effective strategies to combat TB required a comprehensive investigation into various aspects of the disease and health management practices.

Increasing financial support for TB prevention programs was crucial for improving case detection and management. Higher funding was associated with better detection rates and faster treatment initiation. The UN High-Level Meeting for TB emphasized the need for more financial commitment to expand successful initiatives, especially for undiagnosed children and facilities dealing with respiratory symptoms (Malik et al., 2019).

Mathematical modeling became important for resource allocation in TB control, enabling policymakers to prioritize needs based on data-driven approaches. These models helped in creating transparent and objective resource distribution systems, promoting fairness and efficiency in TB governance (Calderon et al., 2022).

Local barriers such as organizational inefficiencies, delayed grant releases, and resource limitations hindered effective TB service dissemination. Addressing these challenges through streamlined procedures and better resource allocation was essential for enhancing TB control efforts (Pradipta et al., 2022).

Public-private partnerships offered a viable solution for increasing funds and resources for TB control. Integrating both sectors could address financial constraints and provide insights into effective partnership models and best practices (Salve et al., 2018).

Social media emerged as a powerful tool for TB awareness, enhancing public participation and promoting positive attitudes towards TB prevention and treatment. Leveraging social media platforms significantly advanced TB awareness and control efforts (Gelaye et al., 2020).

Incentive programs, such as food baskets and transportation stipends, improved treatment compliance, especially among socially vulnerable patients. However, addressing socioeconomic inequalities through comprehensive social protection networks was crucial for sustainable TB management and societal well-being (Orlandi et al., 2019).

Evaluating local TB policy implementation was vital for identifying gaps and strengths, informing decision-making, policy formation, and resource allocation. Continuous policy evaluation and adaptation were necessary to address shifting epidemiological patterns and emerging challenges, ensuring a responsive approach to TB control (Cole et al., 2020; Kumar et al., 2021; Saidi & Douglas, 2017).

Objectives

This research aimed to profile tuberculosis cases in Moncada, analyze infection patterns, evaluate government health programs, propose measures to reduce prevalence, and assess implications for health management.

Specifically, it sought to address the following:

1. To determine the profile of TB cases in the Municipality of Moncada: The study sought to analyze the demographic characteristics of TB cases, including age, sex, and TB classification, to understand the distribution and impact of TB in the community.
2. To narrate the cases of TB infection in the Municipality of Moncada: This objective involved detailing individual patient experiences with TB, including challenges faced during treatment and the overall impact on their lives, to provide insights into the personal aspects of TB management.
3. To determine the government health programs addressing TB infection: The research aimed to evaluate the existing government health programs designed to combat TB in Moncada, assessing their effectiveness in meeting local needs and improving treatment outcomes.
4. To identify measures to deter the prevalence of TB infection: This objective focused on identifying and evaluating strategies to prevent TB, such as enhanced funding, public-private partnerships, and community-based initiatives, to find effective measures to reduce TB prevalence and improve control efforts.
5. To identify the study's implications for health management: The research explored how the findings could impact health management practices in Moncada, providing recommendations to strengthen TB control efforts and enhance the performance of the local health system.



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METHODS

Research Design

The research adopted a qualitative case study methodology to understand tuberculosis (TB) infection in the Municipality of Moncada, Tarlac. The qualitative approach was chosen for its ability to explore complex, context-bound factors through detailed personal narratives. By focusing on the lived experiences of TB patients, the study aimed to reveal how local dynamics influenced TB management and control in this rural setting.

Population and Sampling

The study involved a purposive sample of 30 individuals diagnosed with tuberculosis, selected to represent a range of experiences. This cohort included newly diagnosed and previously treated patients, ensuring a comprehensive view of TB from different stages of the disease. Participants were chosen to reflect diverse genders, ages, and disease severities, providing a holistic perspective on TB in Moncada.

Instrument

This study employed two primary instruments for data collection: structured interviews and focus group discussions (FGDs). Additionally, a review of relevant health policies was conducted to provide a comprehensive understanding of tuberculosis (TB) and its implications for patients and the community.

Structured Interviews were designed with a multi-part questionnaire to gather detailed responses from TB patients. The questionnaire was divided into six sections. The first section collected demographic information, including age, gender, marital status, residence duration, education level, occupation, and family dependents. The second section focused on patients' knowledge and treatment of TB, including their understanding of the disease, symptom recognition, diagnostic procedures, treatment regimens, and medication effects. The third section explored how TB impacted patients' daily activities, lifestyle changes, and overall health. The fourth section addressed community perceptions of TB, including stigma, traditional beliefs, community openness, and the disease's effects on individuals and the community. The fifth section assessed patients' experiences with government health programs, program effectiveness, and suggestions for improvement. The final section collected suggestions for increasing TB awareness and improving care within the community. These interviews were developed from scratch, based on a thorough review of the literature and consultations with experts. Validation was achieved through feedback from the research adviser, research panel, statistician, and subject matter experts, leading to necessary refinements to ensure clarity and relevance.

Focus Group Discussions (FGDs) were conducted to gather collective insights into community attitudes and experiences regarding TB. The FGD guide covered similar topics as the interview guide but was tailored to facilitate group discussions. This guide was also developed from scratch, drawing from literature and expert advice, and was validated by the same panel of experts to ensure its effectiveness in eliciting meaningful group insights.

Policy Reviews involve analyzing existing health policies and programs related to TB to understand their impact and effectiveness. This review utilized documents from government health agencies, non-governmental organizations, and relevant policy literature. The review process included cross-referencing multiple sources and consulting with health policy experts to ensure comprehensive coverage and accuracy.

The instruments were implemented without the need for additional training for administrators, and the policy review was integrated to contextualize findings from interviews and FGDs.

Data Collection

The data collection process for this study employed a rigorously designed qualitative approach to provide an in-depth understanding of tuberculosis (TB) in Moncada, Tarlac. The methodology integrated multiple qualitative techniques to capture diverse perspectives and experiences related to TB.

In-Depth Interviews: Semi-structured interviews were conducted with TB patients who voluntarily agreed to participate and provided informed consent. These interviews were audio-recorded to ensure accurate documentation of participants' narratives. The recordings were transcribed verbatim to facilitate detailed qualitative analysis. This approach enabled a thorough exploration of patients' personal experiences with TB, including their perceptions of the disease, treatment experiences, and interactions with healthcare systems.

Document Analysis: A comprehensive review of pertinent policy documents and program materials was undertaken to assess TB prevention, treatment, and monitoring strategies. This analysis involved a critical examination of documents from governmental and non-governmental health organizations to evaluate the

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effectiveness and scope of existing TB policies and programs. The insights from this document analysis provided a contextual foundation for interpreting the qualitative data gathered from interviews and focus groups.

Focus Group Discussions (FGDs): Focus group discussions were conducted using a specifically designed discussion guide to facilitate structured group interactions. These discussions were audio-recorded and transcribed to enable qualitative analysis of community attitudes, stigma, and collective experiences related to TB. This method provided a platform for participants to share their views and experiences in a group setting, enriching the understanding of TB's impact on the community.

The integration of these qualitative methods comprising in-depth interviews, document analysis, and focus group discussions ensured a comprehensive examination of TB from multiple viewpoints. This multifaceted approach was meticulously aligned with the study's objectives, allowing for a nuanced and detailed understanding of TB within the context of Moncada, Tarlac.

Data Analysis

The data collected from various sources was analyzed using a range of qualitative methodologies to provide comprehensive insights aligned with the study's objectives. This multi-method approach facilitated a nuanced understanding of tuberculosis (TB) and its broader implications.

Thematic Analysis was employed to extract patterns, trends, and key themes from the narratives provided by TB patients. The transcripts from the interviews were meticulously reviewed, coded, and categorized into recurring concepts. This analysis focused on themes such as emotional experiences, challenges in accessing healthcare, stigma, and perceptions of treatment effectiveness. The goal was to uncover the diverse backgrounds and perspectives of TB patients, contributing to a holistic understanding of the human dimension of TB infection.

Content Analysis was applied to evaluate policy documents, reports, and program materials related to TB. This systematic approach involved identifying recurring phrases, keywords, and concepts to reveal the strategies, goals, and resource allocations of government health programs. Through this analysis, pertinent information about the initiatives addressing TB in Moncada was extracted, providing insights into the scope and effectiveness of existing interventions.

Qualitative Analysis of Focus Group Discussions involved a similar thematic approach. The content of focus group discussions was analyzed to identify recurring themes and patterns among stakeholders. This analysis highlighted suggested strategies for reducing TB prevalence, challenges in implementing health programs, and implications for health management practices. It provided a deeper understanding of stakeholder perspectives and their recommendations for improving TB control efforts.

Cross-data synthesis was utilized to compare findings across different data types and sources, identifying connections, contradictions, and patterns within the entire dataset. By integrating insights from interviews, document analysis, and focus group discussions, this synthesis enriched the overall narrative, offering a comprehensive view of TB in Moncada from multiple perspectives.

Together, these qualitative methods enabled a thorough and nuanced analysis of TB, aligning with the study's goals and providing a detailed understanding of the disease's impact and related health interventions.

Ethical Consideration

The study adhered to the highest ethical standards, ensuring honesty, respect for human rights, and responsible research conduct. Before data collection, all participants—including TB patients and program implementers—were provided with detailed information about the study's objectives, methods, potential risks, benefits, and confidentiality measures. Participants were required to give informed consent, with clear explanations that they could withdraw from the study without facing any penalties.

To maintain confidentiality, all personal identifiers such as names, contact details, and unique identifiers were kept separate from the research data. Data was reported only in aggregate form, and all records were securely stored with access restricted to the researcher. The study did not include any interventions or questions that could jeopardize participants' health or psychosocial well-being, and it carefully avoided sensitive topics during surveys and focus group discussions.

In line with the ethical guidelines of Tarlac State University, the study was conducted fairly and objectively, avoiding any potential biases that could affect the validity of the findings. Cultural sensitivity was maintained throughout; the local community's norms and values were respected, and any offensive language or behavior was avoided. The study results were to be shared with participants through community workshops and academic publications, ensuring all participants remained anonymous in published materials.



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RESULTS and DISCUSSION

This section presents the analyses and interpretation of data obtained from the study participants. The information is presented in themes with interpretation and implication. The presentation is organized based on the order of the problems in the problem statement.

1. Profile of TB Cases in the Municipality of Moncada, Tarlac

Table 1
Age of Respondents

Demographic Profile	Category	Frequency	Percentage
Age	4 to 20	3	10.00
	21 to 37	7	23.33
	38 to 54	10	33.33
	55 to 71	6	20.00
	72 to 88	4	13.33
	Total	30	100.00
	Mean Age		47.30

The analysis of TB case distribution by age revealed a significant concentration among middle-aged individuals. The highest proportion of TB cases was observed in the 38–54-year age group, comprising 33.33% of the total cases, followed by the 21–37-year age group at 23.33%. This indicates a notable prevalence of TB among middle-aged adults in Moncada. The mean age of all patients was 47.30 years, underscoring a concentration in the middle-aged and older populations. This observation aligns with global trends where TB is most prevalent among individuals aged 15–59 years, a demographic often in their most economically productive years (WHO, 2022).

Table 2
Sex of Respondents

Demographic Profile	Category	Frequency	Percentage
Sex	Male	18	60.00
	Female	12	40.00
	Total	30	100.00

Gender analysis showed that 60.00% of TB cases were male, while 40.00% were female. This male predominance aligns with global TB epidemiology trends, where men generally experience higher incidence rates. According to the World Health Organization (WHO, 2022), the male-to-female ratio for TB incidence was 1.6:1 in 2021, reflecting a higher burden among men. This disparity may be attributed to occupational and social factors that increase men's exposure to TB pathogens, such as higher smoking rates, alcohol consumption, and occupational exposure (WHO, 2022). The higher proportion of male cases highlights the need for gender-specific interventions that address health-seeking behaviors and TB control strategies targeted towards men.



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Table 3
TB Classification of Respondents

TB Classification	Frequency	Percentage
Bacteriologically Confirmed	18	60.00
Clinically Diagnosed	12	40.00
Total	30	100.00

The categorization of TB cases revealed that 60.00% were bacteriologically confirmed, while 40.00% were clinically diagnosed. This higher proportion of bacteriologically confirmed cases underscores the critical role of microbiological confirmation for accurate diagnosis and timely treatment initiation. According to the World Health Organization (WHO, 2022), bacteriological confirmation is essential, with over two-thirds (67%) of notified TB cases globally being confirmed through laboratory tests. Clinically diagnosed cases indicate that current diagnostic practices may struggle to identify TB based solely on symptoms, reflecting challenges within the local healthcare system (WHO, 2022). This situation highlights the need to enhance local laboratory services and diagnostic capacity to improve early detection and reliable diagnosis of TB.

These findings highlight the need for targeted public health interventions focusing on middle-aged adults and male populations. The results also stress the importance of improving diagnostic capabilities and resource allocation to address TB effectively in Moncada. By understanding the demographic distribution and diagnostic challenges, this study contributes to the development of locally relevant public health strategies to reduce TB's burden.

2. Narration of the cases of TB infection in the Municipality of Moncada

The narratives of tuberculosis (TB) patients in Moncada revealed a complex and multifaceted experience of battling the disease and undergoing rehabilitation. These stories highlighted several crucial factors influencing patients' experiences and their treatment adherence, including community support, access to appropriate treatment and free medications, educational initiatives, and financial assistance.

Community support emerged as a fundamental aspect of managing TB, offering vital emotional and practical assistance for patients. Patients' stories consistently emphasized the community's role in reducing feelings of isolation and stigma and providing practical help, such as accompanying patients to clinics and assisting with daily chores. This support not only alleviated the emotional burden but also played a critical role in enhancing treatment adherence.

The narratives also reflected the challenges of adhering to prolonged and intensive TB treatment regimens, which often involved severe side effects. Structured treatment programs, such as directly observed therapy (DOT), were designed to improve adherence by providing supervision and support. While these programs effectively ensured compliance, they could also add stress to patients. Success stories of recovery highlighted the gradual progress and renewed hope that came with milestones in treatment, showcasing the importance of ongoing support and encouragement.

Access to free medications through government schemes was pivotal for many patients. Such access helped prevent financial barriers from impeding treatment, ensuring that cost did not become a barrier to recovery. This support was essential for mitigating the financial strain on patients and facilitating uninterrupted treatment (WHO, 2023).

Educational initiatives were critical for increasing awareness about TB, including its transmission and the importance of treatment adherence. By reducing stigma and empowering patients with knowledge, these programs played a crucial role in fostering a supportive environment for recovery. Education helped patients understand their condition better and encouraged adherence to treatment protocols (Cremers et al., 2015).

The economic impact of TB was significant, as many patients faced financial difficulties due to their inability to work and the costs associated with treatment. Monetary assistance from government programs, non-governmental organizations (NGOs), and community-based projects was vital in alleviating these financial burdens. This support allowed patients to focus on their recovery without the added stress of financial instability (Nezenega et al., 2020).



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Incorporating the voices of TB patients into research and healthcare planning was essential for developing effective interventions. Understanding and addressing the diverse social, economic, and cultural challenges faced by patients led to improved quality of life and better treatment outcomes. Patient-centered approaches that addressed these challenges significantly enhanced treatment adherence and supported successful recovery journeys (Duko et al., 2019).

The findings from the patient narratives revealed a mixed response to the government's efforts in tuberculosis (TB) management. While a significant majority of patients (67.2%) expressed satisfaction with the accessibility and affordability of treatment, highlighting improved health outcomes as a result, a notable minority (32.8%) raised concerns about various deficiencies in the current system.

Patients who were satisfied with the government's initiatives appreciated the accessible and cost-effective treatment options, which contributed positively to their health. However, the concerns voiced by the minority reflected several critical areas needing attention. Specifically, the issues cited included inadequate financial assistance to cover the costs of care and sustenance, insufficient nutritional support, and the persistent challenges of societal stigma and discrimination (Ogbuabor & Onwujekwe, 2019; Subbaraman et al., 2020).

Transportation difficulties also emerged as a significant barrier, with patients reporting struggles to reach medical facilities and delays in accessing services and medications. These logistical issues further compounded the negative experiences of patients, emphasizing the need for systemic improvements (WHO, 2021).

To address these challenges comprehensively, health systems need to implement targeted strategies to enhance patient satisfaction and treatment outcomes. Strengthening financial support mechanisms to cover care and sustenance expenses was crucial. Additionally, improving nutritional provisions for patients could help address the gaps identified by those facing insufficient support (Cole, 2020).

Reducing stigma and discrimination was essential for creating a more supportive environment for TB patients. Educational campaigns and community engagement efforts played a vital role in combating societal prejudices and fostering a more inclusive approach to TB care (Duko et al., 2019).

Moreover, improving access to healthcare services was vital. This included addressing transportation challenges and minimizing delays in service delivery. Ensuring that patients could easily access both services and medications was fundamental to effective TB management (WHO, 2022).

Addressing the multifaceted needs of tuberculosis (TB) patients was crucial for achieving optimal health outcomes and ensuring comprehensive support for all individuals. By focusing on identified areas for improvement—such as enhancing financial assistance, improving nutritional support, reducing stigma, and increasing access to healthcare services—health systems could significantly boost patient satisfaction, improve treatment adherence, and enhance overall TB control efforts.

The insights gained from patients' experiences emphasized the need for a holistic approach to TB management. Integrating community support, educational initiatives, financial aid, and patient-centered care was essential to addressing the diverse challenges faced by patients. This comprehensive strategy was vital for improving treatment outcomes and enhancing the quality of life for individuals affected by tuberculosis. By adopting these measures, health systems could ensure that no patient fell through the cracks and that all individuals received the support they needed for successful recovery (Sinha et al., 2020).

3. Government Health Programs to Address TB Infection

Government health interventions played a pivotal role in the management and oversight of tuberculosis (TB) care, as evidenced by feedback from individuals who received free public services and the provisions outlined in Municipal Ordinance Number 17 Series of 2021 in Moncada, Tarlac. These interventions were crucial for addressing gaps in TB programs and improving overall patient outcomes (WHO, 2022).

Respondents highlighted issues with inconsistent supplies of medications and supplements at therapy facilities, underscoring the need for reliable access to these essentials. Municipal Ordinance Number 17 Series of 2021 addressed this concern by mandating the evolution of annual TB plans with targeted budget allocations to ensure the regular availability of medical materials. This provision aimed to rectify supply inconsistencies and support continuous patient care (Republic Act No. 7160).

Social support mechanisms, such as advisory services and community help groups, were recognized as fundamental for emotional well-being and treatment adherence. The ordinance advocated for the establishment of patient support groups and community outreach initiatives, reinforcing the importance of a nurturing environment in the healing process (Olaoye & Onyenankaya, 2023). Additionally, dietary support was identified as a critical need, with the ordinance's provisions aiming to incorporate nutritional assistance into government

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health programs (Mokhtar et al., 2020). This holistic approach ensured that patients received comprehensive support throughout their treatment journey.

Practical challenges, such as transportation costs, were noted as significant obstacles to accessing care. The ordinance promoted subsidized transportation services to improve access to medical centers, addressing these logistical barriers (Baral et al., 2014). Financial concerns also emerged as obstacles despite the availability of free treatment. To address this, the law sought to expand financial aid programs to cover ancillary costs, ensuring that financial limitations did not impede access to essential care (Boccia et al., 2016).

The ordinance mandated the adoption of e-health innovations and digital platforms to enhance patient treatment compliance. It also emphasized the training of community health workers on case identification and the implementation of the "no prescription, no dispensing" policy. Compliance with TB management protocols during disasters was incorporated, reflecting a comprehensive approach to public health emergencies (AlMossawi et al., 2019). Additionally, the law required the notification of TB cases by all healthcare facilities, aligning with global TB management standards (Ciobanu et al., 2014). Moreover, providing livelihood assistance to individuals cured of TB was another key provision, supporting their reintegration into the community and promoting long-term health and economic stability (Lei et al., 2015).

Incorporating feedback from TB patients with the provisions of Municipal Ordinance Number 17 Series of 2021 significantly enhanced the effectiveness and accessibility of TB treatment programs in Moncada. By addressing medication supply issues, improving social and nutritional support, subsidizing transportation, expanding financial assistance, and leveraging e-health innovations, the local government markedly improved TB management outcomes. These efforts not only supported individual recovery but also contributed to broader public health goals, such as reducing TB prevalence and enhancing community health (WHO, 2022; Olaoye & Onyenankeya, 2023).

4. Measures to Deter the Prevalence of TB Infection

In Moncada, Tarlac, the fight against tuberculosis (TB) was significantly strengthened by the National Tuberculosis Program and the innovative framework established by Municipal Ordinance Number 17 Series of 2021. This ordinance represented a groundbreaking approach to TB management, integrating grassroots activities with robust healthcare facilities to enhance overall effectiveness.

The local policy emphasized crucial aspects of TB control, including public education on transmission, symptoms, and early detection through neighborhood conferences and media campaigns. This proactive approach empowered residents to recognize symptoms early and seek timely medical care, thereby improving early diagnosis and treatment initiation (WHO, 2022).

Healthcare facilities in Moncada were equipped with advanced diagnostic tools, facilitating swift detection and management of TB cases. Stringent infection control measures were in place to prevent transmission within healthcare settings, supported by comprehensive training for healthcare workers in prevention strategies. Additionally, counseling services and patient support groups provided essential emotional support and encouraged treatment adherence (Malik et al., 2019).

To address practical barriers, the ordinance included provisions for subsidized transportation, ensuring equitable access to treatment for all residents. Financial assistance programs were also in place to cover ancillary treatment costs, alleviating economic burdens on patients (Boccia et al., 2016). The ordinance further promoted e-health innovations to enhance patient management and compliance, ensuring consistent and high-quality care across facilities (Gelaye et al., 2020).

In emergencies, Moncada adhered strictly to established protocols, ensuring the continuity of care and safeguarding patient health. Livelihood support for individuals cured of TB aided their reintegration into the community, promoting long-term health and economic stability (Probandari et al., 2016).

Through these integrated efforts, Moncada exemplified a holistic approach to TB management, demonstrating effective governance and community participation. The combination of educational initiatives, advanced diagnostic capabilities, financial and logistical support, and innovative health solutions aimed to significantly reduce TB prevalence and improve public health outcomes, setting a model for effective TB control (WHO, 2022; Saidi & Douglas, 2017).



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5. Implications of the study to Health Management

Community narratives provided valuable insights into the effective treatment of tuberculosis (TB) by highlighting the critical role of comprehensive care and support networks. Central to these narratives was the recognition of the need for patient-centered approaches that addressed both medical and emotional aspects of care. Community support networks were vital in alleviating feelings of isolation and stigma, offering essential practical assistance, and enhancing access to medical support. Free medications through government programs played a crucial role in maintaining treatment adherence and mitigating financial burdens on patients.

Educational initiatives were instrumental in increasing community awareness about TB, which aided in early detection and reduced stigma. Despite these advancements, challenges such as financial constraints, nutritional needs, and logistical barriers to accessing care persisted, underscoring the necessity for holistic healthcare strategies that considered the entire well-being of patients.

Policies such as Moncada, Tarlac's Municipal Ordinance Number 17 Series of 2021 demonstrated the importance of integrated TB management strategies. These policies ensured consistent medication supplies, incorporated counseling and nutritional support, and promoted community inclusion. By aligning patient-focused care with robust policy frameworks and active community participation, healthcare systems were able to combat tuberculosis more effectively, leading to improved patient outcomes and enhanced public health.

The study underscored the significance of listening to patients' experiences and perspectives, strengthening community support networks, and implementing comprehensive healthcare policies. These approaches improved treatment satisfaction and adherence and contributed to sustainable health improvements in TB management.

Conclusions

1. **Demographic Focus:** The study identified a significant concentration of TB cases among middle-aged adults, highlighting the need for targeted intervention strategies tailored to these age groups in Moncada, Tarlac.
2. **Gender Disparities:** The predominance of TB cases among males reflected a broader global trend, emphasizing the necessity for gender-specific health interventions and awareness programs to address this disparity effectively.
3. **Diagnostic Importance:** The high prevalence of bacteriologically confirmed TB cases underscored the critical role of precise microbiological diagnosis in initiating effective treatment and managing TB cases.
4. **Socio-Economic Challenges:** The socio-economic profile of TB patients presented substantial barriers to effective TB management and access to healthcare services, necessitating broader support systems.
5. **Role of Community Support:** Patient narratives revealed that community support was essential in alleviating the emotional and practical burdens of TB treatment, underscoring the importance of fostering comprehensive support networks.
6. **Adherence Challenges:** Treatment adherence challenges due to the rigorous nature of TB regimens and associated side effects highlighted the need for improved medication accessibility and robust supportive care systems.
7. **Government Initiatives:** Government efforts, such as annual TB plans and Municipal Ordinance Number 17 Series of 2021, were instrumental in ensuring consistent medical supply availability and supporting TB management strategies.
8. **Enhanced Support Mechanisms:** The integration of social support mechanisms, including counseling, peer support groups, and nutritional aid, improved patient care and treatment adherence.
9. **Treatment Satisfaction:** High satisfaction levels among patients regarding treatment accessibility and effectiveness reflected the success of current TB management strategies, though there was room for improvement in medication supply consistency and logistical aspects.
10. **Public Awareness:** Public awareness initiatives were effective in educating the community about TB symptoms, transmission, and the importance of prompt medical attention, contributing to early identification and management of TB cases.
11. **Advanced Diagnostics:** The advanced diagnostic tools and strict infection control measures in Moncada's healthcare facilities, supported by ongoing training for healthcare workers, were effective in preventing TB transmission.
12. **Financial and Transport Assistance:** Subsidized transport services and expanded financial assistance programs addressed practical barriers to healthcare access, ensuring equitable treatment opportunities.



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13. E-Health Innovations: Provisions for e-health innovations and disaster preparedness protocols enhanced TB management outcomes and continuity of care during public health emergencies.
14. Patient-Centered Care: The study underscored the importance of patient-centered care in TB management, advocating for strengthened community support networks and accessible healthcare services.
15. Continuous Improvement: The findings emphasized the need for ongoing improvements in diagnostic capacities, holistic healthcare approaches, and the integration of patient feedback into policy formulation to enhance TB management strategies.

Recommendations

1. Targeted Interventions: Targeted strategies were developed for the 38-54 and 21-37 age groups, including tailored awareness campaigns and age-specific support services.
2. Gender-Specific Programs: Gender-specific health interventions and awareness programs were implemented to address the higher incidence of TB among males.
3. Strengthen Diagnostics: Diagnostic facilities and training programs for healthcare workers were enhanced to ensure accurate and timely diagnosis.
4. Educational and Economic Support: Educational and job training programs were implemented to improve health literacy and economic stability, thereby enhancing TB management outcomes.
5. Community Support Systems: Comprehensive community support systems were fostered, providing emotional, psychological, and practical assistance for TB patients.
6. Medication Accessibility: Access to medications and supportive care systems was improved by streamlining distribution processes and educating patients on treatment adherence.
7. Government Initiatives: Government initiatives and supportive municipal ordinances were maintained and expanded to ensure consistent medical resources and effective TB management strategies.
8. Social Support Mechanisms: The availability of counseling, peer support groups, and nutritional aid was increased to further improve patient care and treatment adherence.
9. Medication Supply: Focus was placed on improving medication supply consistency and addressing logistical challenges to ensure uninterrupted treatment.
10. Expand Awareness Initiatives: Public awareness campaigns were expanded to educate the community on TB symptoms and the importance of seeking prompt medical attention.
11. Advanced Tools and Training: Healthcare facilities remained equipped with advanced diagnostic tools and maintained strict infection control measures, alongside continuous training for healthcare workers.
12. Transport and Financial Assistance: Subsidized transport services and financial assistance programs were continued to eliminate barriers and ensure equitable access to treatment.
13. Leverage E-Health Innovations: E-health innovations were utilized, and disaster preparedness protocols were strengthened to enhance TB management outcomes and ensure continuity of care.
14. Patient-Centered Care: Patient-centered care approaches were advocated, emphasizing the importance of community support networks and accessible healthcare services in TB management.
15. Holistic Approaches: Efforts focused on improving diagnostic capacities, holistic healthcare approaches, and incorporating patient feedback into policy development to enhance TB management strategies and outcomes.

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