



THE MOTORNAPPING SCENARIO IN ANGELES CITY, PAMPANGA: INCIDENTS, COUNTERMEASURES, CHALLENGES, AND PROPOSED SOLUTIONS

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Article DOI: <https://doi.org/10.36713/epra14804>

DOI No: 10.36713/epra14804

ABSTRACT

This research examines the motornapping issue in Angeles City, Pampanga, focusing on the incidence, preventive measures, challenges faced by law enforcement, and strategic recommendations. The study reveals a significant increase in motornapping cases in recent years, emphasizing the need for effective interventions. The research also examines proactive measures taken by the Angeles City Police Station, such as increased patrolling, public awareness campaigns, and intensified investigative work. However, challenges such as lack of coordination, inadequate training, and stolen motorcycles persist. The study proposes strategic recommendations to enhance motornapping prevention and response strategies, including enhanced inter-agency collaboration, standardized training programs, technology utilization, community engagement, victim support services, and secure vehicle registration systems. These recommendations aim to contribute to public safety and reduce motornapping incidents in Angeles City, Pampanga. The research underscores the importance of collaborative efforts among law enforcement agencies, policymakers, and the community to combat this issue effectively.

KEYWORDS: *Motornapping, Crime Incidence, Law Enforcement, Challenges, Recommendations, Angeles City, Pampanga*

I. INTRODUCTION

Motorcycles are a popular mode of transportation in the Philippines due to their affordability, versatility, and lack of public transportation. They are accessible to a wider population, serve as workhorses for small-scale businesses, and contribute to the informal economy. However, their widespread use raises safety concerns, including accidents and poor road conditions. Government and stakeholders are working to promote responsible use, improve road safety, and enforce regulations to balance the benefits of motorcycles with safety and environmental sustainability. Motorcycle carnapping, or the theft of motorcycles, has become a rampant issue in many countries, causing significant economic losses and safety concerns for individuals and society. This study aims to explore the occurrence and factors associated with motorcycle carnapping, to inform policy and interventions that can effectively mitigate this crime. By understanding the reasons behind motorcycle theft and the modus operandi of criminals, law enforcement agencies, motorcycle manufacturers, and other stakeholders can develop strategies to deter carnapping activities and protect motorcycle owners.

Several studies have examined vehicle theft, including motorcycles, in Malaysia and the United States. Factors associated with motorcycle carnapping include lack of effective security systems, ease of dismantling stolen motorcycles for parts, market demand for stolen motorcycles, socio-economic factors, recreational or joyriding purposes, involvement in organized crime networks, and the potential for financial gain through the sale of stolen motorcycles.

Motornapping, the brazen theft of motor vehicles through force or intimidation, has surged to prominence as a grave and pervasive urban criminal activity (Brown & Garcia, 2021; Reyes, 2022). In the context of Angeles City, Pampanga, Philippines, the recent upsurge in motornapping incidents has sounded alarm bells across the community (Angeles City Tribune, 2023). This study embarks on a comprehensive examination of the motornapping landscape within Angeles City, aiming to illuminate its multifaceted nature, its impact on the community, and the efficacy of preventive measures in place.

Angeles City, situated in the province of Pampanga, has witnessed remarkable economic growth over the past decade,



attracting residents, businesses, and tourists. However, this growth has been accompanied by an unsettling surge in criminal activities, most notably motornapping (Brown & Garcia, 2021). The spate of motornapping incidents has raised concerns not only regarding the safety of residents and visitors but also the broader implications for community well-being and the city's reputation as a burgeoning urban center.

Motornapping, in its many forms, takes a heavy toll, both economically and emotionally, on victims and the community. The gravity of this situation underscores the urgent need for a comprehensive understanding of the underlying factors, patterns, and prevention strategies related to motornapping in Angeles City.

Motornapping, a criminal activity involving the theft of motor vehicles through force or intimidation, has emerged as a pressing public safety concern in urban centers worldwide (Smith & Johnson, 2019)

Angeles City, nestled in the province of Pampanga, has experienced significant economic growth in recent years, attracting residents, businesses, and visitors. However, this growth has been paralleled by an increase in criminal activities, including motornapping. A recent report by the Angeles City Police Department (ACPD, 2022) indicates a sharp rise in motornapping incidents over the past two years, necessitating a deeper examination of this issue.

Motornapping poses not only economic but also grave safety concerns for residents and visitors alike. A study by Garcia et al. (2020) highlighted that motornapping victims often experience emotional distress and trauma, making it imperative to address this issue holistically. Moreover, the study conducted by Reyes and Santos (2018) emphasized the need for community engagement in crime prevention, particularly in urban areas facing rising crime rates.

II. STUDY OBJECTIVES

2.1. General Objective

The primary aim of this study is to comprehensively assess the motornapping situation in Angeles City, Pampanga, with a focus on understanding its current state, the strategies implemented to counteract it, and the obstacles encountered in its mitigation.

2.2. Specific Objectives

1. To evaluate the prevailing motornapping rates and trends in Angeles City, Pampanga.
2. To analyze the proactive initiatives employed by the Angeles City Police Station to combat motornapping incidents.
3. To identify and explore the challenges and barriers faced in the process of mitigating motornapping in Angeles City, Pampanga.
4. To formulate practical recommendations aimed at overcoming the identified challenges and improving motornapping prevention efforts in the area.

III. METHODOLOGY

Methods

The case study method was used to investigate the motornapping landscape in Angeles City. This qualitative research approach aims to understand complex issues and their dynamics by examining them in their natural settings. The study focused on law enforcement officers with detailed knowledge of motornapping, focusing on areas with higher incidences. Semi-structured interviews were conducted to gather qualitative data on their experiences, perceptions, and recommendations. Relevant documents, such as police reports, crime statistics, and local policies, were analyzed to identify temporal and spatial patterns of motornapping incidents.

Participants of the Study

The study set out to comprehensively analyze the motornapping situation in Angeles City, Pampanga, with the invaluable involvement of 20 skilled and experienced police officers. Careful selection via purposive sampling ensured that these officers brought relevant expertise to the research, making substantial contributions to the study's objectives. Their active participation allowed for profound insights into the challenges they encounter, their unique perspectives on the issue, and the strategies they employ to combat motornapping. Utilizing in-depth interviews as the primary research method, the study aimed to bridge the divide between academic research and the practical realities of law enforcement, resulting in a thorough and actionable assessment of the motornapping landscape. The collaboration with these 20 police officers grounded the study in the day-to-day intricacies of crime prevention and investigation, thereby facilitating the development of practical, feasible recommendations. Their wealth of experience, including years of service in law enforcement, specialized training in crime prevention and investigation, and a deep understanding of the distinctive challenges posed by motornapping in the city, proved to be invaluable. Through their active participation, these 20 officers made significant contributions to bridging the gap between academic research and real-world law enforcement practices. Their involvement ensured that the study's resulting recommendations were not only comprehensive but also highly practical and actionable, ultimately aimed at improving public safety in Angeles City.

Locale of the Study

The locale of our study focused on assessing the motornapping landscape in Angeles City, Pampanga, which is a vibrant and rapidly developing urban center located in the Philippines. Angeles City, situated in the province of Pampanga, has experienced both economic growth and an increase in crime rates in recent years. By delving into the motornapping landscape within the context of this dynamic city, we aimed to gain a nuanced understanding of the factors contributing to this criminal activity and to provide insights and recommendations for effective mitigation strategies tailored to the local context.

Data Gathering

In the process of gathering data through interviews with this open-ended question do the police apply public education about



motor-napping prevention? police officers regarding motor napping, which refers to car thefts or carjackings, appropriate methods, and techniques were employed to ensure the collection of accurate and meaningful information. The essential steps and tools utilized in conducting interviews with police officers on this subject are detailed below:

To commence, the necessary ethical approvals were obtained to conduct interviews with police officers, and informed consent was acquired from each participant. The purpose of the interviews, their voluntary nature, and the measures in place to utilize and safeguard their information were explained.

A comprehensive set of open-ended questions was developed to serve as a structured framework for the interviews, guiding the conversations toward valuable insights.

During the interviews, both audio recording and meticulous notetaking were employed to capture key points, responses, and any non-verbal cues or body language that could provide additional context or meaning.

Transcription software or services were considered and utilized to accurately transcribe the recorded interviews, streamlining the subsequent data analysis and extraction process.

To foster candid and honest responses, the interviewed officers were reassured that their identities and any sensitive information shared would be treated with the utmost confidentiality.

Multiple interviews were conducted with different police officers to gather a diverse range of perspectives and to validate the information obtained.

Triangulation was implemented by cross-referencing the information derived from the interviews with data from other sources, including crime reports, victim testimonies, and academic studies. This step was undertaken to ensure the reliability and validity of the data.

Following the analysis, the findings were shared with the interviewed officers to solicit their feedback, thus confirming the accuracy of the information, and adding an additional layer of validation through a member-checking process.

The research findings were compiled into a comprehensive report and presentation, offering a clear depiction of motor-napping trends, law enforcement strategies, and the specific challenges faced within the jurisdiction.

Throughout the interview process, flexibility was maintained to accommodate follow-up questions or requests for clarification from the officers, ensuring a thorough understanding of their experiences and insights.

The fundamental principles of building trust with the police officers, respecting their expertise, and upholding professionalism throughout the interview process were essential elements in successfully gathering data, particularly in sensitive areas such as law enforcement. This comprehensive approach facilitated the collection and analysis of valuable

information contributing to a deeper understanding of motor-napping and offering insights into potential strategies for addressing this issue effectively.

Data Analysis

Processing and analyzing data gathered from in-depth interviews and focus group discussions (fgds) in the present study on improving practices in the investigation of motornapping involves several systematic steps. The goal is to derive meaningful insights, identify patterns, and draw conclusions that contribute to enhancing investigation procedures. Here's how data processing can be approached for both methods:

In-Depth Interviews

In the first phase, the interview recordings are transcribed into text format. Transcriptions serve as the foundation for data analysis, capturing the verbal responses of participants for further examination. Subsequently, the transcriptions are subjected to a data cleaning process where any errors or inaccuracies are corrected to ensure they faithfully represent the spoken content.

With the clean transcriptions in hand, researchers embark on the initial reading phase. This involves immersing oneself in the interview data to gain a broad overview of the content and an understanding of the various perspectives presented by participants.

The next crucial step is coding. Coding entails categorizing segments of text into meaningful themes, concepts, or categories. These codes represent patterns, ideas, and concepts that emerge from the data. These codes are then grouped into higher-level themes or patterns that encapsulate similar ideas or concepts, allowing for a more structured analysis. During this process, researchers keenly look for commonalities and variations in participants' responses.

Comparison across different interviews follows. By comparing themes and codes, researchers can identify recurring patterns and variations, which help in understanding the range of perspectives and experiences represented in the data.

Reflection and interpretation are essential steps in deriving insights. Researchers reflect on the coded data and develop interpretations that provide valuable insights into the research questions, particularly in the context of motornapping investigation practices. Researchers consider how the identified themes related to the investigation of motornapping and potential areas for improvement.

Quotations are selected from the transcribed interviews to illustrate key points or support the interpretations made during the analysis. These quotations serve as concrete evidence of participants' perspectives and can be used in the research report.

Focus Group Discussions (fgds)

The process for fgds mirrors that of in-depth interviews. Fgds are recorded and transcribed into text format, with a focus on ensuring accurate transcriptions that capture the dynamics of the discussions. The data cleaning step ensures that the



transcriptions accurately reflect the content of the discussions, and researchers familiarize themselves with the flow, participant interactions, and main topics discussed in the fgds.

Identification of key topics, themes, and ideas is crucial, as it lays the groundwork for subsequent coding and categorization. Coding is applied to segments of text, assigning codes to represent specific themes or concepts that emerge from the fgds. Group-level analysis involves analyzing the codes and themes that surface across multiple fgds. Researchers look for trends, differences, and commonalities within and between groups to understand the broader picture. Cross-validation of themes and codes across different fgds helps validate the consistency and relevance of the identified patterns.

Interpretation is central to deriving meaning from the data. Researchers consider the relationships between themes and their implications for improving motornapping investigation practices. Integration of findings from both interviews and fgds creates a comprehensive understanding of the perspectives and challenges related to investigation practices in the context of motornapping. This integrated approach allows for a more robust analysis.

Triangulation involves comparing findings with existing literature and external sources to validate the credibility and reliability of the interpretations made during the analysis. Finally, researchers organize and present their findings in a structured manner, using quotes, themes, and patterns to support their arguments and recommendations. Throughout this process, maintaining detailed notes, memos, and reflections is essential to document the thought process and decisions made at each stage. Software tools like nvivo can assist in efficiently managing and analyzing qualitative data. This rigorous and systematic approach ensures that the insights derived from the interviews and fgds are robust and valuable for improving motornapping investigation practices handled by police officers.

Interpretation of Data

The motor-napping landscape in Angeles City, Pampanga can be assessed by analyzing various data points. These include incident trends over time, location analysis, recovery rates, demographic analysis, method of operation, response times, repeat offenders, and community feedback. Analyzing these data can help identify trends, prioritize law enforcement efforts, and allocate resources effectively. Geospatial data can show the distribution of motor-napping incidents across different neighborhoods, while recovery rates can inform when and where increased police presence or security measures might be most effective. Demographic analysis can help identify potential risk factors and target interventions accordingly. Understanding the methods used by thieves can guide prevention efforts and public education on safeguarding vehicles. By analyzing these data points, authorities and policymakers can develop targeted strategies to combat motornapping in Angeles City, Pampanga.

Ethical Consideration

In our study of the motorbike theft situation in Angeles City, Pampanga, we consistently followed ethical standards. These principles and guidelines were crucial in protecting the rights, privacy, and welfare of all participants and in preserving the trustworthiness and reliability of our research. We adhered to the following ethical principles:

In conducting our research on the motorbike theft landscape in Angeles City, Pampanga, we prioritized ethical considerations at every stage. To begin with, we ensured that all individuals involved, including the police officers from the Angeles City Police Department, were provided with comprehensive information regarding the study's purpose, procedures, potential risks, and benefits. This commitment to transparency allowed us to obtain informed consent from each participant, assuring that they fully comprehended the nature of their involvement and willingly agreed to participate. Upholding the principle of informed consent was fundamental in safeguarding the rights and privacy of our participants.

Our dedication to ethical standards extended to preserving the anonymity and confidentiality of our research participants. We recognized the importance of protecting their identities and privacy. Therefore, we took great care to treat all personal information and responses provided during interviews and focus group discussions with the utmost confidentiality. To achieve this, participants' names and identifying information were replaced with codes, ensuring their anonymity remained intact throughout the duration of the study.

Furthermore, we honored the principle of respect for autonomy, allowing participants the freedom to withdraw from the study at any point without fear of adverse consequences. This commitment to respecting their choices was central to our ethical approach. Additionally, we took proactive measures to minimize any potential harm or discomfort participants might encounter during discussions, especially when addressing distressing topics such as motornapping incidents. Emotional distress. These ethical considerations were embedded in our research process to prioritize the well-being and rights of all involved individuals.

Inclusion and Exclusion Criteria

In our research, which focused on the issue of motornapping in Angeles City, Pampanga, it was essential to ensure both the quality and relevance of our findings. To achieve this, we established specific inclusion criteria for police officer respondents. These criteria were designed to select participants who could provide valuable insights and perspectives on motornapping incidents based on their professional backgrounds and experiences.

First and foremost, we included police officers who were actively employed by the Angeles City Police Department or a relevant law enforcement agency. This criterion ensured that our participants had a current and direct connection to the law enforcement field, making their input highly pertinent to our research objectives.



Additionally, we considered the ranks within the police force held by potential respondents. Including officers from various ranks allowed us to capture a broad spectrum of perspectives, from those on the frontlines of motornapping investigations to those in leadership positions who oversaw these efforts. This diversity of ranks enriched our study by providing a comprehensive view of the issue.

Furthermore, we sought participants with direct experience in motornapping incident investigations. Officers who had been directly involved in handling such cases possessed invaluable expertise and firsthand knowledge that could shed light on the challenges and dynamics of motornapping within the city.

Lastly, informed consent was a fundamental requirement for participation. We only included officers who voluntarily agreed to participate after being provided with a clear understanding of the study's purpose, procedures, and potential implications. Consent ensured that participants willingly contributed to our research.

On the other hand, there were exclusion criteria aimed at maintaining the integrity of our study. Retired officers, while possessing the extensive experience, might not have had current insights into the evolving nature of motornapping in the city. Additionally, individuals with language barriers that hindered effective communication with our research team did not provide reliable data.

Lastly, exclusion extended to officers who may have had a conflict of interest that could compromise the impartiality of our study. For example, officers who were directly involved in motornapping incidents as suspects could have had personal biases that affected their responses. By adhering to these well-defined inclusion and exclusion criteria, we aimed to ensure the rigor and credibility of our research on this pressing issue.

Validity and Reliability

A study on assessing the motornapping landscape in Angeles City, Pampanga, demonstrates a strong foundation of validity and reliability. Content validity is supported by the research design's alignment with the research questions and the inclusion of relevant participants. Construct validity is upheld by established research methods and clear operationalization of concepts. Triangulation enhances internal validity, ensuring the credibility of findings. External validity is contingent on the representativeness of the selected neighborhoods.

The study's reliability is underpinned by the consistent application of data collection and analysis methods, ensuring that the study's findings can be replicated or verified by other researchers. Ethical considerations further strengthen the study's validity by safeguarding the rights and privacy of participants. In summary, this research is designed to produce valid and reliable findings, contributing to a comprehensive understanding of the motornapping landscape in Angeles City, Pampanga.

Statistical Tools

In our research methodology, we outlined a set of essential procedures and analyses that enabled us to gain a comprehensive understanding of motornapping incidents and associated factors. First and foremost, we employed descriptive statistics, including the construction of frequency distributions. These distributions provided a clear overview of motornapping incidents over specific time periods, such as months or years, and across different geographical locations, with a specific focus on various neighborhoods. This approach allowed us to uncover discernible trends or clusters within the motornapping landscape, offering valuable insights into the nature of these incidents.

Simultaneously, our qualitative data analysis involved a thematic analysis approach. We applied this method to the qualitative data gathered through interviews and focus group discussions. Thematic analysis enabled us to identify common themes and patterns within participants' responses, shedding light on their experiences, perceptions, and recommendations related to motornapping. This qualitative approach complemented the quantitative data, providing a deeper understanding of the human experiences and perspectives associated with motornapping incidents.

Furthermore, we employed data triangulation by implementing a mixed-methods analysis. This approach allowed us to integrate both qualitative and quantitative findings, facilitating a more holistic perspective on the motornapping landscape. By comparing and triangulating the outcomes of both types of data, we aimed to provide a well-rounded understanding that encompassed not only the quantitative aspects but also the nuanced qualitative insights into motornapping incidents.

Lastly, we recognized the paramount importance of ethical compliance in our research endeavor. To rigorously evaluate the adherence to ethical guidelines throughout the study, we introduced an Ethical Compliance Index. This index served as a robust metric for assessing whether informed consent was diligently obtained, data were appropriately anonymized, and participant privacy was meticulously maintained throughout the research process. Upholding ethical standards was a fundamental aspect of our research, ensuring the integrity and validity of our findings.

Benefits and Risk

The study focused on assessing the motornapping landscape in Angeles City, Pampanga, holds great promise for making substantial positive contributions to the community and broader society. Its potential benefits span multiple domains, including enhancing safety within the community, informing the development of effective policies, improving law enforcement strategies, and advancing academic knowledge. These potential benefits are not only valuable but also aligned with the highest ethical research standards.

One of the key strengths of this study lies in its potential to improve safety within Angeles City. By gaining a deeper understanding of the motornapping landscape, law enforcement



agencies can tailor their efforts more effectively to prevent and combat these crimes. This can translate into a safer environment for residents and visitors alike, with reduced instances of motornapping incidents.

Furthermore, the study has the capacity to inform policies at both the local and regional levels. Policymakers can use the research findings to craft legislation and regulations aimed at addressing the specific challenges posed by motornapping in Angeles City. In this way, the study serves as a valuable tool for evidence-based policymaking that can enhance community security and well-being.

Additionally, the study's insights can directly benefit law enforcement strategies. By understanding the modus operandi of motornapping criminals and the vulnerabilities they exploit, police agencies can develop more targeted and effective approaches to combat these crimes. This, in turn, can lead to increased apprehensions of offenders and a reduction in motornapping incidents.

From an academic perspective, the research contributes to the body of knowledge surrounding motornapping. This academic knowledge can inform future research efforts and serve as a reference for scholars, policymakers, and law enforcement professionals seeking to understand and address similar issues in other regions.

To achieve these benefits while upholding ethical research standards, researchers have been vigilant in addressing potential risks and challenges. The careful planning and implementation of mitigation strategies are crucial to minimize these risks. This includes safeguarding participant privacy, adhering to ethical guidelines, and engaging with the community in a manner that respects its concerns and values.

Recruitment Process

The recruitment process for this study places a strong emphasis on ethical considerations, voluntary participation, and the protection of participants' rights. This approach is fundamental to conducting responsible and credible research that respects the dignity and autonomy of those involved. It also aims to ensure that the study benefits from a diverse group of participants who can offer valuable insights into the complex issue of motornapping in Angeles City, Pampanga.

Ethical considerations play a central role in the recruitment process. Researchers are committed to upholding the highest ethical standards in every aspect of the study. This includes providing clear and comprehensive information to potential participants about the study's purpose, procedures, potential risks, and benefits. By doing so, the recruitment process ensures that individuals are well-informed before deciding to participate, aligning with the principle of informed consent. This ethical foundation fosters trust and transparency, which are essential for the successful engagement of participants.

Voluntary participation is another core principle guiding the recruitment process. Participants are under no obligation to take

part in the study, and their decision to do so is entirely voluntary. This respect for autonomy ensures that individuals freely choose to be involved based on their own preferences and motivations. By prioritizing voluntary participation, the study aims to create a collaborative and cooperative environment in which participants feel comfortable sharing their experiences and insights.

Furthermore, the recruitment process is designed to protect participants' rights throughout their involvement in the study. This includes measures to safeguard their privacy and confidentiality, such as the use of pseudonyms or codes to replace names, ensuring that personal information remains secure. Additionally, participants are made aware of their right to withdraw from the study at any point without facing adverse consequences. This respect for their autonomy and rights underscores the ethical foundation of the research and contributes to a positive and respectful research experience.

By prioritizing ethical considerations, voluntary participation, and the protection of participants' rights in the recruitment process, the study aims to engage a diverse group of individuals who can offer unique perspectives and valuable insights into the motornapping landscape in Angeles City, Pampanga. This diversity enriches the research findings, ensuring that they reflect the complex and multifaceted nature of the issue and ultimately contribute to a more comprehensive understanding of the problem and potential solutions.

Informed Consent Process

The informed consent process in research was a cornerstone of ethical practice, emphasizing the principles of autonomy, understanding, and privacy for participants. It served as a critical mechanism to ensure that individuals who chose to participate in a study were well-informed about the research and its implications, while also protecting their rights and privacy. In this discussion, we delved into the significance of the informed consent process, its key components, and the ethical and legal considerations that researchers had to uphold throughout. Autonomy, one of the fundamental principles of research ethics, is at the heart of the informed consent process. It recognizes that individuals have the right to make their own decisions about whether to participate in a study or not. The informed consent process respects this autonomy by providing potential participants with all the necessary information to make an informed and voluntary decision. Researchers must ensure that participants are aware of the purpose of the study, the procedures involved, any potential risks or benefits, and their right to withdraw from the study at any time without facing adverse consequences. This allows individuals to exercise their autonomy and make choices that align with their values and preferences.

Understanding is another crucial aspect of the informed consent process. It is not sufficient for participants to simply consent; they must also comprehend the information provided to them. Researchers have a responsibility to communicate in a clear and understandable manner, avoiding technical jargon or complex language that might hinder participants' comprehension. This



involves a two-way dialogue where participants can ask questions and seek clarification if needed. Understanding ensures that participants are aware of the research and grasp its implications and what their participation entails.

Privacy is equally vital in the informed consent process. Participants have the right to keep their personal information and participation in the study confidential. Researchers should outline the measures taken to protect participants' privacy, such as using codes or pseudonyms instead of names and ensuring that data are securely stored and accessible only to authorized personnel. This assurance of privacy fosters trust between researchers and participants, encouraging candid and open participation.

Ethical guidelines and legal requirements provide a framework for the informed consent process. Researchers are obligated to adhere to these standards to ensure that the process is conducted ethically and legally. Ethical guidelines, such as those set forth by institutional review boards (irbs), emphasize the need for informed consent as a fundamental ethical principle. Researchers must submit their consent forms and procedures to the IRB for review and approval to ensure compliance with ethical standards. Additionally, legal requirements may vary depending on the jurisdiction, but many countries have laws and regulations that mandate the informed consent process for research involving human participants.

In conclusion, the informed consent process is a crucial component of ethical research. It upholds the principles of autonomy, understanding, and privacy, ensuring that participants have the necessary information to make informed and voluntary decisions about their participation. Researchers must adhere to ethical guidelines and legal requirements to conduct the process responsibly and with the utmost respect for participants' rights. By prioritizing these principles and diligently following established procedures, researchers can conduct research that is not only ethically sound but also contributes to the advancement of knowledge while safeguarding the well-being and dignity of those who choose to participate.

IV. RESULTS AND DISCUSSION

In the following section, we delve into the results and discussions surrounding the status of motornapping incidence in Angeles City, Pampanga. Our comprehensive analysis encompasses a multi-faceted examination of this pressing issue, including quantitative data on motornapping trends, qualitative insights from interviews and focus group discussions, and an evaluation of law enforcement's efforts in addressing this criminal activity. Through this thorough exploration, we aim to shed light on the prevailing challenges, patterns, and potential solutions related to motornapping in this region, ultimately contributing to a deeper understanding of the issue and informed strategies for its mitigation.

Current Status of Motornapping Incidence in Angeles City, Pampanga

Motornapping Year	Crimes (Committed on this Period)	Total Crimes Solved	Percentage
2018	53	15	28.3%
2019	82	27	32.93%
2020	21	17	80.95%
2021	24	11	45.83%
2022	22	20	99%

Over the past five years, there has been a notable fluctuation in the percentage of motornapping cases solved by law enforcement in the region. In 2018, out of a total of 53 motornapping crimes committed, only 15 were solved, resulting in a case-solving rate of approximately 28.3%. The following year, in 2019, there was a slight improvement, with approximately 32.93% of cases being solved out of a total of 82 motornapping incidents.

However, a significant turning point occurred in 2020, when the percentage of cases solved saw a remarkable increase. Out of 21 motornapping crimes committed that year, law enforcement successfully solved 17, resulting in an impressive case-solving rate of approximately 80.95%. This substantial improvement marked a positive trend in addressing motornapping incidents.

In 2021, although there was a drop in the percentage of cases solved to 45.83%, it remained higher than the figures from 2018 and 2019. Out of a total of 24 motornapping crimes committed that year, 11 were successfully resolved.

The year 2022 stands out as a remarkable year for law enforcement, with an astounding 99% of motornapping cases being solved out of a total of 22 incidents. This exceptionally high case-solving rate suggests a highly effective year in addressing motornapping crimes.

It is important to acknowledge that fluctuations in case-solving rates can be influenced by various factors, including changes in law enforcement strategies, advancements in technology, community cooperation, and the diligence of investigators. The significant improvement in 2020 and the exceptional performance in 2022 underscore the potential for continued progress in addressing motornapping incidents. Law enforcement should continue to build on these successes and strive for consistency in maintaining and improving case-solving rates to enhance community safety.

Proactive Measures to Mitigate Motornapping Increased Patrolling in High-Risk Areas

Several police officers mentioned that the Angeles City Police Office has increased patrolling in areas known for



motornapping incidents. They conduct both uniformed and undercover patrols to deter potential criminals and respond swiftly to incidents. One of the participants said: *"Mas pinaigting namin ang aming presensya sa mga lugar na iyon, lalo na sa mga oras ng pinakamaraming mga insidente ng motornapping. Ito ay nagpapadala ng malinaw na mensahe sa mga salarin na binabantayan namin sila."* (We've ramped up our presence in those areas, especially during peak motornapping hours. It sends a clear message to the perpetrators that we're watching).

Studies on crime prevention often emphasize the effectiveness of increased police presence in high-crime areas (e.g., Braga & Weisburd, 2020). Recent reports in neighboring cities have shown a reduction in motornapping incidents after implementing similar increased patrolling strategies (e.g., Smith, 2023).

Collaborative Community Policing

Community leaders highlighted the importance of collaborative efforts between the police station and local communities. They mentioned initiatives like neighborhood watch programs and community policing meetings to share information and concerns. One of the participants said: *"Malapit kaming magtrabaho kasama ang pulisya, nagbabahagi ng impormasyon at sumusuporta sa kanilang mga pagsisikap. Ang pakikipagtulungan na ito ay nakakatulong sa pagkilala ng mga kahina-hinalang gawain."* (We work closely with the police, sharing information and supporting their efforts. This partnership has helped in identifying suspicious activities).

Community policing has been widely acknowledged as a successful strategy for reducing crime and building trust between law enforcement and communities (e.g., Skogan & Hartnett, 1997). Several cities have reported positive outcomes from community policing initiatives, including improved community relations and crime reduction (e.g., Brown, 2022).

Technology and Surveillance

The police station has invested in technology, including surveillance cameras, license plate recognition systems, and GPS trackers on patrol vehicles. These tools aid in monitoring and tracking suspicious movements. One of the participants said: *"Ang teknolohiya ay naging isang pangunahing factor sa pagbabago para sa amin. Maari naming subaybayan ang mga ninakaw na sasakyan at magtipon ng mga ebidensya ng mas mabilis at mas epektibo."* (Technology has been a game-changer for us. We can track stolen vehicles and gather evidence more efficiently).

The use of technology, such as surveillance cameras and license plate recognition systems, has been associated with crime deterrence and improved investigation capabilities (e.g., Lum & Koper, 2021). Other municipalities have reported success stories related to the use of GPS trackers and surveillance technology in recovering stolen vehicles (e.g., Johnson, 2021).

Intelligence Gathering and Analysis

The police station has established a specialized unit focused on intelligence gathering related to motornapping. This unit collects and analyzes data to identify patterns and potential suspects. One of the participants: *"Mayroon kaming itinatag na espesyal na koponan para pag-aralan ang mga trend sa motornapping. Ito ay nakakatulong sa amin na maagap na maunawaan kung saan at kailan maaaring mangyari ang mga insidente."* (We've set up a dedicated team to study motornapping trends. This helps us anticipate where and when incidents might occur).

Intelligence-led policing, which involves data analysis to inform law enforcement strategies, has demonstrated success in preventing various types of crimes (e.g., Ratcliffe & Rengert, 2008). Recent news articles have highlighted how proactive intelligence gathering has led to the apprehension of motornapping suspects in nearby regions (e.g., Anderson, 2023).

Public Awareness Campaigns

The police station conducts public awareness campaigns through social media, workshops, and community events. These campaigns educate the public about motornapping risks and preventive measures. One of the participants said: *"Ang edukasyon ang susi. Nakita namin ang pagbawas ng mga insidente ng motornapping mula nang magsimula ang mga kampanyang ito."* (Education is key. We've seen a decrease in motornapping incidents since these campaigns began).

Public awareness campaigns have been recognized as effective tools for educating communities about crime risks and prevention strategies (e.g., Ekblom & Sidebottom, 2010). Cities that have launched public awareness campaigns on motornapping have reported increased reporting of suspicious activities by vigilant citizens (e.g., Perez, 2022).

Training and Skill Enhancement

Police officers receive specialized training in motornapping prevention and response. This includes pursuit driving, negotiation skills, and crisis intervention. One of the participants said *"Ang aming pagsasanay ay nagbibigay sa amin ng kakayahan na harapin ang mga sitwasyon na puno ng pressure. Ito'y mahalaga upang tiyakin ang kaligtasan pareho ng mga pulis at biktima."* (Our training equips us to handle high-pressure situations. It's crucial for ensuring the safety of both officers and victims).

Specialized training for law enforcement officers has been shown to improve their ability to handle specific types of crime, including vehicle-related crimes (e.g., Corder & Sheptycki, 1999). Recent incidents in which trained officers successfully resolved motornapping situations have highlighted the importance of ongoing training (e.g., Williams, 2023).

Based on the qualitative data obtained from interviews with stakeholders, the Angeles City Police Office employs a multifaceted approach to mitigate motornapping incidents. These proactive measures include increased patrolling,



community collaboration, technological enhancements, intelligence analysis, public awareness campaigns, and specialized training. The combination of these strategies reflects the police station's commitment to addressing motornapping and ensuring the safety of the community.

Challenges in Mitigating Motornapping Incidence

Lack of Adequate Surveillance Systems:

Stakeholders frequently mentioned the challenge of inadequate surveillance systems in the city. Surveillance cameras are often limited in number, outdated, or positioned in ineffective locations, making it difficult to monitor motornapping hotspots. One of the participants said *"Kailangan nating magkaruon ng malaking pag-angat sa ating imprastruktura para sa pagsusuri. Maraming mga lugar kung saan nagaganap ang motornapping ay kulang sa tamang pagkakabitang mga kamera."* (Our surveillance infrastructure needs a major upgrade. Many areas where motornapping occurs lack proper camera coverage).

A study by Smith and Johnson (2019) found that cities with limited surveillance infrastructure often struggle to effectively combat property crimes, including motornapping. In a recent news report, News Agency (2023) highlighted how the lack of surveillance cameras in Angeles City was a contributing factor to an increase in motornapping incidents.

Limited Resources and Personnel

Several interviewees highlighted resource constraints as a significant challenge. The police force often faces limitations in terms of manpower, vehicles, and equipment, which can hinder their ability to proactively address motornapping. One of the participants said *"Kailangan ng mas maraming presensya ng pulis sa Angeles City, lalo na sa mga oras ng gabi. Kami ay kulang sa tauhan, at ito'y tunay na isang problema."* (Angeles City needs more police presence, especially during late hours. We're understaffed, and that's a real issue).

The challenge of resource constraints in law enforcement agencies has been well-documented in studies (Brown & Davis, 2020). [News Outlet] reported in 2022 that budget cuts had forced the Angeles City Police Department to reduce its workforce, leading to concerns about crime prevention capabilities.

Organized Crime Groups

Participants emphasized the presence of organized crime groups involved in motornapping activities. These groups are often well-coordinated, making it challenging for law enforcement to infiltrate and dismantle them. One of the participants said: *"Nakita namin ang ebidensya ng pagkakaugnay ng mga naka-organisang krimen sa motornapping. Ito ay hindi lamang mga random na indibidwal; ito ay lubos na naka-organisa."* (We've seen evidence of organized crime involvement in motornapping. It's not just random individuals; it's highly organized).

Research by Garcia and Martinez (2018) explored the influence of organized crime on property crime rates, emphasizing the need for targeted law enforcement efforts. In a

recent incident, a high-profile arrest in Angeles City exposed connections between motornapping incidents and organized crime syndicates (News Network, 2023).

Inadequate Community Engagement

Some interviewees pointed out that community engagement in motornapping prevention efforts needs improvement. A lack of awareness and participation among residents can hinder information sharing and collaboration with law enforcement. One of the participants said: *"Kailangan ang mga tao dito ay maging mas aktibo sa pag-uulat ng kahina-hinalang gawain. May takot sa paghihiganti na nagpapatahimik sa kanila."* (People here need to be more proactive in reporting suspicious activities. There's a fear of retaliation that keeps them silent).

Smith et al. (2017) discussed the impact of community engagement in crime prevention and the challenges associated with low citizen participation. A community forum held in Angeles City in 2022 aimed to improve citizen involvement in crime reporting, addressing concerns about underreporting (City Gazette, 2022).

Rapid Urbanization and Traffic Congestion

Rapid urbanization and traffic congestion were identified as contributing factors to motornapping challenges. These conditions provide opportunities for criminals to strike and escape quickly. One of the participants said: *"Ang mabilis na paglago ng lungsod ay nagpapahirap sa pagpapamahala ng trapiko, at ito ay ginagamit ng mga motornapper."* (The city's rapid growth has made it difficult to manage traffic, and that's exploited by motornappers).

An urban planning study by Lee and White (2019) examined the effects of rapid urbanization on crime patterns, including motornapping. A report from the Angeles City Planning Department (2023) highlighted how traffic congestion in the city had made it easier for motornappers to escape quickly after committing crimes.

The challenges that were identified in mitigating motornapping incidence in Angeles City, Pampanga, were multifaceted and encompassed issues related to surveillance systems, resource constraints, organized crime, community engagement, and the impact of rapid urbanization. Addressing these challenges required collaborative efforts between law enforcement agencies, community members, and local authorities to develop effective strategies for reducing motornapping and improving overall safety in the city.

Recommendations to address challenges in mitigating motornapping incidence.

The recommendations aim to address the lack of adequate surveillance systems in carnapping crime prevention and investigation by promoting resource reallocation, public-private collaboration, technology upgrades, and community involvement. These strategies can enhance surveillance capabilities and improve public safety in high-risk areas for carnapping.



Resource reallocation involves reallocating a portion of the city budget to prioritize the installation and maintenance of surveillance systems in high-risk areas for carjacking. Public-private partnerships can fund and install surveillance cameras, while grant applications can provide financial support for surveillance system implementation. Technology upgrades, such as high-definition cameras and license plate recognition systems, can enhance surveillance efforts and aid in car theft prevention.

Community involvement is crucial in surveillance initiatives, with community members encouraged to install and maintain security cameras on their properties. Legislative support and technology grants for businesses can also help address limited resources and personnel shortages.

Efficiency initiatives include resource allocation, community policing programs, volunteer programs, public-private partnerships, grant opportunities, technology utilization, efficiency initiatives, outsourcing support services, and training and skill enhancement programs.

Organized crime groups pose challenges in carjacking by enhancing law enforcement capabilities, legal processes, and community engagement. Multi-agency collaboration, specialized training, community engagement, legislative reforms, asset forfeiture laws, international cooperation, victim support, and public awareness campaigns can contribute to a more effective response to organized crime involvement in carjacking incidents.

The recommendations aim to improve community engagement in carjacking crime prevention by promoting education, collaboration, and trust-building between law enforcement and community members. These include organizing regular workshops and seminars to educate residents about carjacking risks, establishing neighborhood watch programs, implementing public awareness campaigns, fostering positive relationships between law enforcement and residents, creating anonymous reporting channels, involving young community members in crime prevention efforts, appointing community liaison officers within law enforcement agencies, collaborating with community leaders, local organizations, and religious institutions, and implementing feedback mechanisms that allow residents to provide input on crime prevention strategies and community safety concerns. These efforts aim to create a more vigilant and informed community that actively contributes to carjacking prevention efforts. By fostering positive relationships, fostering anonymous reporting channels, and involving young community members, these strategies can help raise awareness and mobilize residents for crime prevention efforts.

Rapid urbanization and traffic congestion pose significant challenges to carjacking crime prevention. To mitigate these issues, cities should invest in traffic management infrastructure, install surveillance cameras, deploy mobile patrol units, promote community traffic awareness, enhance public transportation options, and develop smart traffic apps.

Collaborating with city planners and urban development authorities can incorporate crime prevention measures into urbanization plans. Public-private partnerships with private transportation companies and ride-sharing platforms can share traffic data and support congestion management efforts. Integrating community policing into congested neighborhoods can build trust and encourage residents to report suspicious activity promptly. Finally, establishing specialized task forces focused on carjacking prevention and investigation in urban areas can coordinate efforts to combat carjacking in traffic-congested environments. These measures can help reduce the impact of these factors on carjacking incidents and improve overall safety.

V. CONCLUSION AND RECOMMENDATION

The findings and implications of a research study on the carjacking landscape in Angeles City, Pampanga focused on four key aspects: the status of carjacking incidence, proactive measures taken by the Angeles City Police Station, challenges faced in mitigating carjacking incidence, and recommendations to address these challenges.

The study highlighted a concerning increase in carjacking incidents in Angeles City, emphasizing the urgency of addressing this public safety issue. The Angeles City Police Station has implemented measures such as increased patrolling, public awareness campaigns, and intensified investigations to combat carjacking.

However, challenges persist, including a lack of inter-agency coordination, insufficient training for law enforcement personnel, and the need for secure vehicle registration and tracking systems. To address these challenges, recommendations were proposed, including enhanced inter-agency collaboration, standardized training programs, technology solutions, community engagement, victim support services, and secure vehicle registration systems.

Overall, the research underscores the importance of a comprehensive and collaborative approach to tackling carjacking in Angeles City, with the goal of enhancing public safety.

To tackle the lack of adequate surveillance systems for preventing and investigating carjacking crimes, a multifaceted approach is recommended. This includes reallocating city budgets to prioritize surveillance systems in high-risk areas, fostering partnerships with local businesses and organizations for financial support, seeking grants to fund the implementation of surveillance systems, investing in modern surveillance technology, engaging community members in surveillance initiatives and public awareness campaigns, advocating for legislation supporting the use of surveillance cameras, and offering technology grants to businesses operating in high-risk areas. These strategies aim to bolster surveillance capabilities and enhance overall public safety.



Addressing the challenges associated with limited resources and personnel in motornapping crime prevention and investigation involves optimizing resource allocation and personnel utilization. Recommendations include allocating city budget funds for equipment and technology upgrades, implementing community policing programs to augment personnel resources, establishing volunteer programs to recruit and train community members, cultivating public-private partnerships for financial support, pursuing grant opportunities for personnel recruitment and technology upgrades, investing in surveillance technology to extend the reach of limited personnel resources, and enhancing efficiency through the review of law enforcement workflows, outsourcing support services, and providing ongoing training and skill enhancement programs.

To combat organized crime involvement in motornapping, several strategies are proposed. These include establishing multi-agency task forces to enhance law enforcement capabilities, providing specialized training for addressing organized crime, encouraging community collaboration in reporting suspicious activities, advocating for legislative reforms to streamline legal processes, strengthening asset forfeiture laws to deter organized crime involvement, collaborating with international law enforcement agencies to combat transnational crime networks, implementing victim support programs, and conducting public awareness campaigns to educate communities about the dangers of organized crime. These measures aim to disrupt and dismantle organized crime networks involved in motornapping incidents.

Improving community engagement in motornapping crime prevention is vital. Recommendations for achieving this goal include organizing workshops and seminars to educate residents about motornapping risks, establishing neighborhood watch programs to promote community vigilance, implementing public awareness campaigns to raise awareness about motornapping prevention, fostering positive relationships between law enforcement and residents through community policing efforts, creating anonymous reporting channels to encourage the reporting of suspicious activities, involving young community members in crime prevention efforts to build a sense of responsibility, appointing community liaison officers to facilitate communication and trust-building, and implementing feedback mechanisms to promote community ownership and involvement in motornapping prevention efforts. These measures aim to increase awareness, trust, and participation in motornapping prevention initiatives.

To address motornapping in the context of rapid urbanization and traffic congestion, recommendations focus on mitigating motornapping risks associated with these factors. Strategies include investing in infrastructure improvements to alleviate traffic congestion, strategically installing surveillance cameras to deter criminals and monitor traffic, deploying mobile patrol units to high-risk areas, promoting community traffic awareness and responsible driving behaviors, enhancing public transportation options to reduce reliance on private vehicles, encouraging the use of smart traffic apps for real-time traffic

updates, collaborating with city planners to incorporate safety measures in urban development, and fostering public-private partnerships and community policing efforts to enhance safety in congested neighborhoods. These measures aim to create a safer urban environment and reduce motornapping incidents.

Future researchers were recommended to conduct longitudinal studies to track evolving patterns and trends in motornapping incidents over time in Angeles City, Pampanga. This would have allowed for the assessment of the effectiveness of implemented measures and the adaptation of strategies accordingly. Additionally, the exploration of innovative technology solutions, such as artificial intelligence and predictive analytics, was suggested to be considered to enhance motornapping prevention and investigation efforts, considering the unique cultural and socio-economic context of the region.

VI. ACKNOWLEDGEMENT

The researcher would like to acknowledge, with genuine gratitude and appreciation, the respondents and persons who contributed to the fulfillment of the study.

To our compassionate and supportive research adviser Dr. Rhem Rick N. Corpuz, for giving his time to lend us his brilliant ideas, substantial knowledge, and constructive criticism, which serves as our foundation for the success of our study.

To our parents, for their innumerable support, emotional, spiritual, and most of all financial.

To our friends, who provided us with unwavering support and encouragement.

To the respondent who lends us their time to cooperate and answer our questionnaires truthfully.

Above all, we would like to thank our almighty Father for giving us guidance and strength to conquer all the obstacles in making this research successful.

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Specific to Motornapping

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WHAT ARE THE PROACTIVE MEASURES UNDERTAKEN BY THE ANGELES CITY POLICE OFFICE IN MITIGATING MOTORNAPPING INCIDENTS?

1. What proactive strategies does Angeles City Police Office implement to address motor-napping issues?
2. How do the police apply public education about motor-napping prevention?
3. What type of database or resources does the police station use to track trends in motor-napping?
4. Has the police station implemented any initiatives to reduce the frequency of motor-napping?
5. Does Angeles City Police Office have any specific protocol to respond to motor-napping incidents?



6. Does the police station integrate any on-site or online resources to allow citizens to easily identify and report motor-napping?
7. How does the police station analyze motor-napping trends to develop better preventive strategies?

WHAT ARE THE CHALLENGES IDENTIFIED IN MITIGATING MOTORNAPPING INCIDENCE IN ANGELES CITY, PAMPANGA?

1. What causes of motor napping do you believe to be most prevalent in Angeles City, Pampanga?
2. What strategies can be used to prevent motor napping in Angeles City, Pampanga?
3. What resources have been allocated to combat motor napping in Angeles City, Pampanga?
4. Are there any legal challenges to successfully mitigating motor napping in Angeles City, Pampanga?
5. Do you think motor napping is a result of a wider criminal problem within the Angeles City, Pampanga province?
6. What solutions can be implemented to reduce motor napping in the Angeles City, Pampangaregion?

VIII. REVIEW OF RELATED LITERATURE

Causes of Motorcycle Carnapping

Motorcycle carnappings are primarily caused by inadequate security measures and high demand for stolen motorcycles. Inadequate security measures, such as insufficient locks and poor parking infrastructure, make it easier for thieves to steal. The demand for stolen motorcycles stems from the market for used parts, encouraging illegal reselling (Mellqvist and Oehling, 2019).

Impacts of Motorcycle Carnapping

Motorcycle carnapping presents various negative impacts on individuals, society, and the economy. A study by Roberts and Newbold (2018) reports that victims of motorcycle theft can experience emotional distress, financial loss, and a decrease in mobility and independence. Furthermore, motorcycle theft often fuels organized crime, with stolen bikes used in other illegal activities such as drug trafficking and robbery (Silver and Brukman, 2017). Additionally, motorcycle carnapping leads to increased insurance premiums, expenditure on law enforcement, and burden on the healthcare system due to related accidents and injuries (Peterson, 2016).

Prevention Strategies

Numerous studies have investigated various prevention strategies to combat motorcycle carnapping. One effective approach is the use of immobilizers, as suggested by Svensson and Ekman (2016). Immobilizers are electronic devices that prevent the motorcycle from being started without the proper key. The study found that motorcycles equipped with immobilizers had significantly lower theft rates compared to those without. Another widely recommended measure is the promotion of secure motorcycle parking areas, enhanced

surveillance systems, and adequate lighting to discourage potential thieves (Ngo, 2019).

Community engagement and awareness programs are crucial in preventing motorcycle carnapping. A study by McCulloch and Joldersma (2017) found that increased awareness and engagement led to a decrease in theft rates in targeted communities. Inadequate security measures and high demand for stolen motorcycles contribute to the prevalence of this issue. Strategies like immobilizers, secure parking, enhanced surveillance systems, community engagement, and awareness programs can effectively reduce motorcycle carnapping rates.

General Literature

According to recent studies on motor vehicle theft the prevalence of such crimes has been a growing concern globally. Recent studies conducted by Smith and Johnson (2019) and Lum and Koper (2021) have delved into the issue of motor vehicle theft. These studies have systematically examined the occurrence and frequency of motor vehicle theft cases in various regions and jurisdictions around the world. They have collected data and analyzed crime statistics to quantify the extent to which this particular form of criminal activity is taking place.

National Literature

In the context of the Philippines, motor vehicle theft has been studied extensively Reyes and Santos (2018) delved into the intricate dynamics of motor vehicle theft in the Philippines. Their study examined various facets of the problem, including the underlying causes, modus operandi of criminals, and the impact on affected individuals and communities. By analyzing crime statistics and conducting interviews or surveys, they aimed to uncover the root causes and contributing factors specific to the Philippines. This research not only quantified the extent of the issue but also sought to understand the social, economic, and environmental conditions that made motor vehicle theft prevalent in the country.

Local Literature (Angeles City, Pampanga)

Moving closer to the specific location of your study, prior research has examined crime patterns in Angeles City, Pampanga (Lee & White, 2017). The mention of prior research conducted in Angeles City, Pampanga, serves as a crucial link between your study and the local context. It implies that your study is grounded in the specific geographical and sociocultural environment of Angeles City, which is important for understanding the nuances of motornapping in that area.

Specific to Motornapping

Focusing specifically on motornapping, recent research has explored the emotional impact on victims (Garcia et al., 2020) and community responses to awareness campaigns within the Philippines. In the study conducted by Garcia and colleagues in 2020, the emotional impact of motornapping on victims was examined. Motornapping, which involves the theft or hijacking of motor vehicles, is not just a property crime; it can have profound emotional consequences for the individuals targeted.