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## Small Communities in Crisis: Examining the Impact of Disaster on Crimes Using Social Disorganization Theory

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### ABSTRACT

This study examines the connection between disasters and crime rates in small communities. Building on the idea that strong social bonds and community spirit help keep crime low (social disorganization theory), the researchers explore how disasters disrupt these structures in Toril, Davao City, Philippines. Using surveys and interviews, the research investigates how disasters weaken trust, strain resources, and create opportunities for crime. The findings suggest that while existing crime prevention measures like neighborhood watch programs work well under normal circumstances, disasters can overwhelm these systems. This breakdown, coupled with the desperation caused by unmet basic needs, can lead to increased crimes of convenience. Ultimately, the study recommends a multi-pronged approach to strengthen community resilience and encourage ethical behavior during disasters. This includes reinforcing social safety nets, improving disaster preparedness training, promoting community spirit, addressing mental health concerns, and bolstering crime prevention strategies. By implementing these recommendations, communities like Toril can be better prepared to handle disasters while maintaining social order and minimizing criminal activity.

### INTRODUCTION

Disasters disrupt social order, weaken social control mechanisms, and potentially lead to increased crime rates. This study explores this connection in Toril, Davao City, Philippines. While research by Weil (2020) suggests a rise in crime following disasters, the relationship is complex, with other factors like changes in policing practices potentially influencing crime rates (Perkins & Felson, 2019). Hence, a deeper understanding of this complex relationship can benefit various stakeholders. Understanding the link between disasters and crime is crucial. Communities can gain knowledge about social factors influencing criminal behavior, as highlighted by the grounded theory approach discussed by Sarraf (2023) which can help develop effective crime intervention strategies based on a thorough analysis of the root causes of crime.

Disasters, both natural and man-made, can act as a catalyst for increased crime rates through their disruptive impact on communities. The prevalence of typhoons, earthquakes, and volcanic eruptions in Mindanao, as documented by the International Disaster Database (2021), highlights the constant threat these events pose to social order. Disasters disrupt social organization in several ways. Displacement, loss of property, and economic hardship are common consequences. These disruptions can weaken social bonds and erode community trust, creating an environment conducive to crime, as Aldrich *et al.* (2018) noted. Furthermore, disasters can overwhelm formal social control mechanisms like law enforcement, hindering their ability to maintain order (Abdeen *et al.*, 2021). This disruption of social structures and weakening

of control mechanisms creates fertile ground for criminal activity, potentially leading to an increase in looting or opportunistic crimes in the aftermath of a disaster.

Adding to this complexity is the issue of resource availability. Poverty and limited access to basic necessities are well-established risk factors for crime, as research done by a former prisoner (2023) demonstrates. Disasters can exacerbate these issues by destroying livelihoods and infrastructure, pushing vulnerable populations further into poverty. This economic desperation can create a cycle of crime, as individuals resort to illegal activities to meet their basic needs (Maskay *et al.*, 2018). Agyeiwaa *et al.* (2021) found a positive correlation between economic hardship following natural disasters and property crime in Ghana, highlighting the need to address resource availability as part of disaster recovery efforts to reduce crime.

The impact of ethical heterogeneity, the diversity of beliefs and values within a community, on crime rates in the aftermath of disasters is a topic of ongoing exploration. While some studies suggest that higher levels of heterogeneity can lead to social disorganization and increased crime (Lee & Braga, 2018), others argue that strong social cohesion can mitigate these negative effects (Arant *et al.*, 2021). A 2023 study by Zhang *et al.* examining post-disaster social cohesion in China found that strong social ties fostered by shared experiences can actually decrease crime rates. This suggests that fostering social cohesion, even in diverse communities, can be a valuable crime prevention strategy following disasters.

In this study, the crime rate in Toril, Davao City, is a unique dependent variable. While traditionally measured through

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official police reports, this study focuses on self-reported crime rates gathered through in-depth interviews with convicted offenders. This approach offers a valuable perspective that is often missing from official data. This variable is measured and analyzed to understand how it's potentially influenced by the independent variables – disasters, resource availability, ethical heterogeneity, policing practices, and social control mechanisms. Crime rate encompasses the frequency of criminal activity within a specific geographic area and timeframe. Moreover, disasters may aggravate such underlying social conditions because they create physical damage, upend economic activity, and foster population growth (Chavez, 2010; Hsu & Gershengorn, 2019). Others have speculated that crime may increase after disasters because other crime-causing factors, including changes in policing practices and social controls, become less effective because fewer resources for crime control are available (Perkins & Felson, 2019; Rojek & Leclerc, 2018).

The connection between disasters and crime rates is likely to be multifaceted, and causality has not been fully explored. Social disorganization theory, for example, suggests that the chaos and disruption that occurs after a disaster inhibits mechanisms of social control and leads to crime. This theory states that when populations are uprooted from an area, crime will follow (Wickert, 2018). As Flynn and Miller (2019) explain, physical infrastructure destruction devastates formal control mechanisms provided by local government and law enforcement, making it necessary for those suffering losses to fend for themselves. Under these circumstances, looting is a likely outcome.

In fact, it can differ depending on several factors. Another related complication is that the connection between disaster-specific crime effects can differ depending on the specific nature and severity of the disaster, the impacted community's characteristics, and the response by law enforcement and other institutions. Fewer neighbors reduce opportunities and increase guardianship for criminal activity, indicating that traditional crime statistics might register reduced crime. More informal and collective patterns of law enforcement may appear in their stead (Bruin, 2023). Furthermore, a growing body of evidence shows that crime may diminish after an event, particularly given that disaster-induced displacement of residents may engender increased vigilance and cooperation among survivors (Heide, 2021). While there are reasons to believe that a disaster might result in increased rates of crime, the relationship is complex.

Social disorganization theory is rooted on the notion that social order is upheld by a complex web of social relationships, institutions, and norms and that when relationships and norms break down, crime increases. Thus, researchers' application of social disorganization theory is enough to understand the mechanism through which a disaster in certain areas can emerge and suggest possible interventions to prevent it (Vargas *et al.*, D., 2018). Further, according to the social disorganization theory,

the following phenomenon occurs: certain physical and social attributes of community's result in higher crime levels due to decreased informal social controls and increased criminal conduct opportunities. Since the very same attributes pre-exist disasters and/or are exacerbated by them due to the dissolution of social and community institutions that it results in, it also results in increased crime.

A community's physical makeup, including poverty levels and resource availability, can leave its mark on crime rates. Areas struggling with poverty may see a rise in property crimes, while those with limited access to basic necessities might experience a surge in theft and similar offenses. Social aspects also play a significant role. The way a community polices itself, the ethical heterogeneity, and the effectiveness of social control measures all influence crime by shaping how well the community organizes itself and its collective capacity to tackle crime (collective efficacy).

The main goal of this research is to apply social disorganization theory to examine the influence of disasters on the crime rate in Toril, Davao City. The study aims to provide a detailed examination of the relationship between disasters and crime rates, particularly on the contributing factors sparking criminal behaviors in the aftermath of disasters. Thus, the research findings of this study will contribute to the analysis of disasters' impact on crime level and become the basis for the development of subsequent research studies.

The specific objectives of the study are as follows:

- To examine residents' perceptions of the effectiveness of policing practices, social control mechanisms, ethical heterogeneity, and resource availability in preventing crime in Toril.
- To identify what type of disaster lead to criminal behavior.
- to provide insights into what type of crimes are prevalent during disasters.
- To explore the motivations behind criminal acts committed during the disaster period and how these motivations connect to social disorganization theory.
- To examine the potential relationship between residents' perceptions on the performance and resource in the community as well as the motivations of the offenders to commit crime.

By delving into the root causes of criminal behavior, communities gain valuable insights that can inform the development of more effective prevention and intervention strategies. This, in turn, can lead to a significant reduction in crime rates. This also serves importance to the University of Mindanao as it offers vital information about a critical issue communities face in the region. A better understanding of the relationship between disasters and crime rates from the social disorganization theory perspective can help form policies and programs aimed at reducing damages from disasters and promoting public safety. In this way, the university contributes to the larger struggle to understand the many

and complex ways that disasters and crime are related, and how both can be mitigated. More importantly, by engaging in the conduct of this research, and thereby demonstrating the university's commitment to addressing the critical social and environmental problems of our time, and producing and disseminating knowledge to help do that. This research can contribute upon the development of effective disaster response and recovery programs, which can positively impact communities in Mindanao.

The social disorganization theory explains how physical and social conditions like poverty, ethnic diversity, and residential mobility are linked to higher crime rates. Disasters can worsen these conditions by causing damage, disrupting economic activity, and increasing population movement (Chavez, 2010; Hsu & Gershengorn, 2019). Additionally, changes in policing and reduced resources for crime control during disasters can lead to increased crime (Perkins & Felson, 2019; Rojek & Leclerc, 2018). For example, in the Philippines, natural hazards such as typhoons and earthquakes have significantly impacted Mindanao, including Davao City, contributing to higher crime rates due to social disruption (International Disaster Database, 2021). Studies have shown that typhoons increase crime rates, especially in urban and impoverished areas, due to social and economic disruptions (Anttila-Hughes & Wetherley, 2015). The study by Morin *et al.* (2017) reveals a disconnect between public and police perceptions, largely due to a lack of community engagement by the police. Enhancing community engagement can improve police-community relations, leading to better problem-solving and resource allocation. The social disorganization theory suggests that disrupted social and economic relationships lead to increased crime, such as theft and looting, after disasters (Covington & Taylor, 1991; Flynn & Miller, 2019). Understanding this relationship helps in formulating interventions to mitigate crime post-disaster, emphasizing the importance of social order and community institutions in preventing crime (Wachtendorf & Quarantelli, 2002; Alazab *et al.*, 2018; Burt & Katz, 2017). For students, exploring this theory provides insights into how disasters impact

crime and highlights the influence of social, economic, and environmental factors on criminal behavior within communities.

## METHODOLOGY

### Design and Procedure

An explanatory sequential mixed-method design was employed in this research, where both qualitative and quantitative approaches were used to answer the research questions and test the research hypothesis. The quantitative research design also constitutes the first stage of the study, which helps to formulate a better understanding of the phenomenon and apply it in the formulation a qualitative research design (Toyon, M. A. S., 2021). The quantitative phase, however, utilized a community-focused survey questionnaire. The researchers used correlational analysis to examine the relationship between disasters, crime rates, and various factors (Onyeneke, C. & Karam, A., 2022). Hence, instead of directly asking residents about crime rates, this part of the study asked them about their experiences with things that might be connected to crime. Shown in figure 1 is the conceptual paradigm of the study. The research is structured into two distinct phases: a quantitative phase followed by a qualitative phase, with subsequent integration of data to provide comprehensive insights. In the initial quantitative phase, a survey instrument is employed to collect numerical data from residents of Davao City.

The survey utilizes a Likert-scale questionnaire to measure various aspects of community characteristics, including perceptions of police visibility, resource availability, ethical heterogeneity, policing practices, and social control mechanisms, alongside the frequency of neighborhood crimes during different types of disasters. The data collected is subjected to descriptive statistical analysis, where frequency distributions, means, and standard deviations are computed to summarize the data. This analysis aims to identify trends and patterns, providing an understanding of the prevalence and types of crimes that occur during disaster periods, and their relationship to the physical and social characteristics of the community.

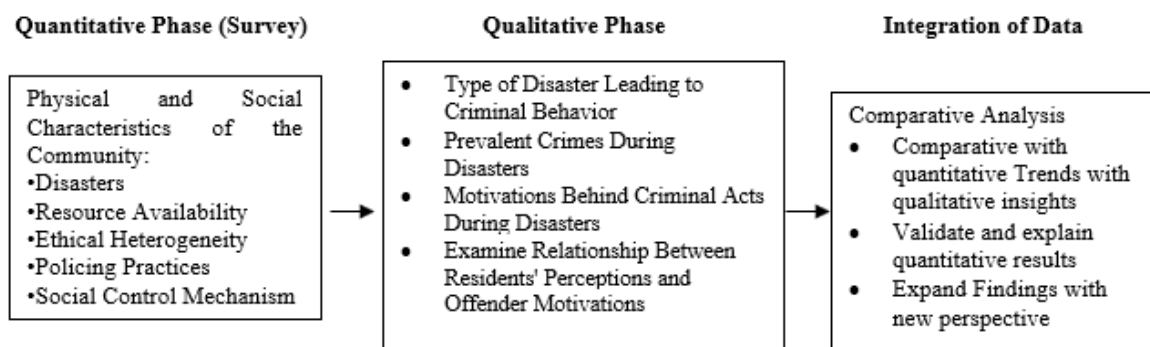


Figure 1: Conceptual Paradigm of the Study

Following the quantitative phase, the study transitions to a qualitative phase involving semi-structured interviews. A subset of survey participants is selected for these interviews based on specific criteria derived from the quantitative findings, such as extreme scores or interesting patterns. The qualitative phase seeks to delve deeper into the motivations behind criminal behavior during disasters, exploring how these motivations connect to social disorganization theory. The interview data is analyzed through thematic analysis, where transcripts are coded to identify common themes and patterns related to the types of disasters, prevalent crimes, and motivations behind criminal acts. This qualitative approach provides rich, contextual data that complements and expands upon the quantitative findings.

They were asked about how easy it is to get basic needs met (resource availability), how well they feel the police are doing their job (policing practices), and how diverse their neighborhood is (ethnic diversity). The researchers also asked about how well different methods of keeping order function in the community (social control mechanisms). By looking at how these things are perceived to be connected to crime rates before and after disasters, the researchers can get a better understanding of the bigger picture. Nevertheless, the qualitative phase of this research dives deeper into the motivations behind crime during disasters. Researchers conducted an in-depth interview solely with individuals who committed crimes in Toril after disasters.

Therefore, these interviews explored the “why” behind the crimes. This helped identify their experiences, motivations driven by desperation, social order breakdown, etc. and how the disaster shaped their decision making. This approach to data has aimed to complement the quantitative data by providing a deeper understanding of the issues that might lead to increased crime rates post disasters. By combining the data garnered from the survey and in-depth interview, this research design aimed to secure a wider perspective on the subject. The data has also been analyzed by statistical tests like descriptive and inferential analysis via t-tests (Wisniewski, C. & Picone, M.F., 2019). Through the proposed approach, the current study hoped to provide a detailed, complete investigation that offers a clear position between disasters and crime rates on Toril.

The final step involves integrating the quantitative and qualitative data to achieve a comprehensive understanding of the research questions. This integration is performed through a comparative analysis that combines quantitative trends with qualitative insights. The qualitative data is used to validate and explain the quantitative results, ensuring that detailed personal accounts and contextual information from the interviews support the patterns observed in the survey data. Additionally, the integration allows for the expansion of findings, incorporating new perspectives and detailed explanations that may not be evident from the quantitative data alone.

### Study Participants

The study's participants are Toril, Davao City residents who reportedly have been directly or indirectly affected by disasters such as flood especially from certain areas in Toril such as in Purok Lisada Proper, Purok 2, 3, and Purok 8 in Barangay Marapangi, Barangay Lubogan, Barangay Toril Poblacion, and Barangay Crossing Bayabas (DRRMO, 2020). Furthermore, areas that experienced fire incidents such as Daliao, Barangay Sirawan, and Crossing Bayabas' residents were included as well as the earthquake victims. To be specific, the researchers picked Toril, Davao City as this study's research locale because it offers a population that has likely experienced multiple disasters, has a sufficient number of potential participants, and allows for easier data collection.

To help determine the participants, a purposive sampling technique was used to select participants based on certain criteria. The sample size in the study varied depending on the availability of participants, the required level of precision, and the number of participants that yields reliable outcomes. Considering this issue, the researchers targeted the inclusion of a sample of 300 participants in the study who have lived in the area no less than 5 years and had encountered at least one disaster in the preceding 5 years. Additionally, 12 respondents were found who have committed a crime in disaster times.

Nevertheless, it was decided to limit the participation in the study to individuals of age 18 and above. The age limit was an appropriate choice for the lower age limit as it makes for an inclusive sample. The focus on people over the age of 18 ensured that the study would involve people who could offer meaningful insights and experiences in themes related to the effect of disaster in crime rates. Limiting the ages of the participants was an appropriate way to ensure that the sample was representative of the target population study, making the findings applicable and relevant.

### Research Instrument

The data-gathering instruments in this study utilized a survey questionnaire and an interview guide questionnaire. As stipulated by Johnson and Tippett (2018a), survey questionnaires are the most commonly used tool to produce quantifiable data in human studies. The interview guide questionnaires collect qualitative data through a series of face-to-face interviews or telephone interviews. An interview guide with open-ended questions and probes was also administered in this study. As stated by Mauldin (2021a), the probes help the interviewer to ask in-depth questions about the participants' perspectives and experiences with the relationship between disasters and crime and what might push someone to commit more crime after a disaster. The survey questionnaire was structured to collect quantitative data on the disasters and crime rates relationship and the inquiries that may affect people's engagement in criminal activities after disasters (Mauldin, 2021b). Therefore, the questionnaire

includes Likert scale questions required to inquire about respondents' demographics, their experiences, and perceptions of community disaster readiness, as well as the factors that may lead to increased crime after disasters (Johnson & Tippett, 2018b).

## RESULTS AND DISCUSSION

This research successfully addressed the lived experiences and crime motivations during disasters in Toril from the community members and the offenders' perspectives through a series of interviews and survey. Nevertheless, it is essential to recognize that the current design does not include the authorities who are responsible for disaster response implementation or resource allocation. Inclusion of such perspectives would've further explained the resource deficit, policy changes during a disaster, and how the changes affect the crime rates. For instance, learning how the resources are distributed might expose some gaps that lead to criminal activities. Information on authorities-induced factors might also demonstrate some unintended effects that could affect crime patterns. Hence, future research focusing on the same topic as this research study should implement a set of interviews or surveys with public officials could provide a broader understanding of the crime rate during disaster occurrences.

In this section, this research presents the quantitative and qualitative findings collected to investigate the relationship between disasters and crime rates in small communities according to social disorganization theory. The quantitative data was derived from victim surveys by employing a Likert scale to deduce the mean score and standard deviation (SD) conducted with 300 respondents. This allows examining how the residents evaluated the issues of safety and security. The qualitative data is based on the conducted in-depth interviews with 12 people who committed crimes during disasters (identified as ID001-ID012 to ensure confidentiality) which provided their personal narratives and motivations behind their actions. Upon analyzing both sets of data, this portion seeks to achieve the following:

### Examine Trends

Using the community survey questionnaires, this study

aims to trace and outline the patterns in the residents' perceptions on multiple aspects related to safety and security within their community.

### Uncover Motivations

Drawing on the experiences and outlooks of the offenders through in-depth interview analysis, this study seeks to understand the motivators that drives criminals to operate in disaster-affected settings.

### Illuminate Connections

By integrating both the quantitative and the qualitative findings, we may establish how social disorganization, produced by a disaster may create opportunity for criminal behavior in small communities.

Moreover, in this section, the qualitative data was categorized and analyzed. Hence, the collected data allows for the establishment of the key themes associated with the effects of disasters on crime. Once the themes are determined, they were linked to the quantitative findings based on the victim surveys. Ultimately, the key purpose behind the results and the discussion is to create a more in-depth understanding of the connection on the interaction between disasters, social disorganization, and changes in crime rates in small communities.

### Examine Trends: Perceptions of Policing Practices

Table 1 below shows the community perceptions on the implemented policing practices in Toril before and during disasters. The table shows that the residents hold a generally positive view of the police in their community with an overall mean score of 4.29 with a low standard deviation of 0.37. This suggests a relatively consistent level of satisfaction across the different areas assessed and a sense of trust and positive interaction between the police and the community before, during, and after disaster occurrences. However, the perception of crime prevention effectiveness falls under "Fair" on the scale with a mean score of 3.72, with a relatively high standard deviation of 2.36. This indicates some variation in residents' opinions on the police's ability to prevent crime during disaster seasons. Some residents may have more faith in the police during these times (scoring higher on the scale), while others may be less confident (scoring lower).

**Table 1:** Perceptions of Policing Practices

Item Statements	Mean	SD	Interpretation
Police respond quickly to emergency situations.	4.33	0.68	Very High
Police are effective in preventing crime during disasters.	3.72	2.36	Fair
There is enough police presence to maintain order.	4.39	0.59	Very High
Police treat all residents fairly and equally.	4.39	0.55	Very High
Residents trust the police.	4.33	0.60	Very High
Police are respectful towards residents.	4.33	0.57	Very High
Police are approachable and willing to listen to concerns.	4.38	0.59	Very High
Police use non-violent methods to control situations.	4.36	0.61	Very High
<b>Overall</b>	<b>4.29</b>	<b>0.37</b>	<b>Very High</b>

Therefore, the findings in this table supports the idea that residents can have positive overall views of the police that aligns with the concept of procedural justice, which emphasizes the importance of fair and respectful treatment by police during interactions with citizens. As stipulated by Wintruba (2018), this can lead to increased feelings of legitimacy and a willingness to cooperate with law enforcement. However, as the community also have doubts about the police’s ability to prevent crime during disasters, this raises concerns about the potential increase in crime during disaster seasons, which could erode public trust in the police (Ravanilla, et.al. 2018).

**Perceptions of Resource Availability**

This section explores residents’ perceptions of resource availability for public safety in Toril, Davao City. Table

2 presents an overall mean score of 4.02, indicating a generally positive view and the low standard deviation of 0.27 suggests a high level of consistency across the areas assessed. This implies that residents felt the community has strong resources for emergency response and disaster preparedness as this aligns with the high mean score of 4.46 for access to victim support services, suggesting a well-coordinated network for crisis situations. However, the availability of resources for crime prevention itself received a lower mean score of 3.53 with a moderate standard deviation of 0.67. This aligns with the finding that education and awareness programs were seen as less accessible to residents. These results suggest that while resources for response are available, there may be a need to strengthen preventive measures through more accessible education and awareness initiatives.

**Table 2:** Perceptions of Resource Availability

Item Statements	Mean	SD	Interpretation
Adequate resources to address crime.	3.53	0.67	Fair
Access to support services for crime victims.	4.46	0.56	Very High
Adequate funding for law enforcement.	4.32	0.70	Very High
Effective emergency response system.	4.37	0.61	Very High
Adequate resources for natural disasters.	4.41	0.58	Very High
Crime prevention education programs accessible.	3.04	0.58	Fair
<b>Overall</b>	<b>4.02</b>	<b>0.27</b>	<b>Very High</b>

This focus on preventative resources aligns with the ideas presented in Clarke and Felson’s book “Routine Activity Theory and Rational Choice Theory” (2017). The book argues that crime prevention is most effective when it addresses the factors that create opportunities for crime. By making crime more difficult or less appealing, communities can achieve greater public safety. In Toril’s case, increasing access to educational and awareness programs on crime prevention could be a key strategy to complement their existing response resources.

**Perceptions of Social Control Mechanisms**

This survey reveals a strong emphasis on social control

mechanisms within the community, table 3 reflects in an overall mean score of 4.25. Notably low standard deviation of 0.25 suggests a high level of consistency across these areas. While residents reported feeling safe and secure and a high level of social cohesion, this sense of community is further bolstered by a strong neighborhood watch program, indicating a collaborative effort towards maintaining safety. The presence of an effective community mediation program suggests residents are comfortable resolving disputes peacefully. But a “fair” rating for resident awareness of their role in law enforcement with a mean score of 3.46 suggests a potential area for improvement.

**Table 3:** Perceptions on Social Control Mechanisms

Item Statements	Mean	SD	Interpretation
Residents aware of their role in law enforcement.	3.46	0.73	Fair
Residents willing to cooperate with law enforcement.	4.37	0.60	Very High
Residents feel safe and secure.	4.38	0.59	Very High
Strong neighborhood watch program.	4.54	0.67	Very High
High social cohesion and support.	4.44	0.60	Very High
Effective community mediation program.	4.32	0.59	Very High
<b>Overall</b>	<b>4.25</b>	<b>0.25</b>	<b>Very High</b>

While residents are willing to cooperate with law enforcement, there may be a gap in understanding how their everyday actions can contribute to a safer community. Community outreach programs that educate residents on crime prevention strategies and fostering positive relationships with law enforcement could be beneficial. By empowering residents with knowledge and fostering a sense of shared responsibility, the community can further strengthen its social fabric and promote a lasting sense of security. This supports the ideas presented in “The Broken Window Theory” explained by Ruhl (2024a), which suggests that visible signs of disorder, even minor ones, can create an

environment that encourages more serious crime.

**Perceptions of Ethical Heterogeneity**

Shown in table 4 is the level of perception of ethical heterogeneity. Scores across all statements within “Ethical Heterogeneity” are above “High” or “Very High” on the scale with an overall mean score of 4.46 and 0.22 standard deviation result, indicating that Toril is a community that prioritizes ethical conduct. Residents value honesty and integrity, and the community promotes diversity and inclusion with a strong anti-discrimination policy. Additionally, both law enforcement and community leaders are perceived as adhering to high ethical standards.

**Table 4:** Perceptions of Ethical Heterogeneity

Item Statements	Mean	SD	Interpretation
Law enforcement adheres to high ethical standards	4.41	0.61	Very High
Community leaders adhere to high ethical standards	4.49	0.54	Very High
Residents value honesty and integrity	4.42	0.59	Very High
Community promotes diversity and inclusion	4.50	0.52	Very High
Strong anti-discrimination policy	4.55	0.53	Very High
Community supports and advocates human rights	4.37	0.54	Very High
<b>Overall</b>	<b>4.46</b>	<b>0.22</b>	<b>Very High</b>

These findings resonate with the concept of “social capital” explored by Tristan Claridge in his book “Introduction to Social Capital Theory” (2018). Social capital refers to the networks of trust and reciprocity that exist within a community. When social capital is high, there is a greater sense of shared responsibility, cooperation, and willingness to follow ethical norms. The strong emphasis on ethical conduct across institutions in Toril suggests a high level of social capital, which can

lead to a more positive and stable environment for all residents.

**Uncover Motivations: Factors of Community Crime**

This analysis explores the various factors that can contribute to an increase in crime following disasters such as earthquakes, fires, and floods. The findings are categorized into five emergent themes: Natural, Moral, Mental, Economical, and Social.

**Table 5:** Factors of Community Crime

Formulated Meanings	Clustered Themes	Emergent Themes
Disasters such as earthquake, fire, and flood can lead to crime as people struggle to meet basic needs, are confused by the chaos, or see opportunities to steal unattended items while emergency responders and others are focused on rescue efforts. [ID001, ID002, ID003, ID004, ID005, ID006, ID007, ID008, ID009, ID0010, ID0011, & ID0012]	Disaster	Natural
Disaster survivors may steal out of desperation to meet basic needs like food, especially when they feel official aid is insufficient. This can cause guilt, but the pressure to survive can overpower those feelings. [ID001, ID002, ID006, & ID0011]	Survival Instinct	Moral
The chaos of disasters, with people seeking safety or focused on rescue efforts, can create opportunities for theft. This lack of supervision can tempt people to steal from unattended stores or homes. [ID001, ID006, ID007, & ID008]	Lack of Supervision	
Even with aid at shelters, shortages can leave some disaster survivors feeling they must steal to meet their basic needs. [ID002 & ID0011]	Limited Resources	
The stress and fear caused by the situation can cloud people’s judgement, making them more likely to act impulsively or forget their actions entirely. In some cases, this can lead to opportunistic theft or even a blurring of the lines between helping and taking advantage of chaos. [ID008, ID009, ID0010, & ID0012]	Psychological Factors	Mental

People facing unemployment, financial instability, or the need to support their families may resort to theft to secure basic necessities or money. [ID001, ID004, ID005, ID006, ID007, ID008, ID0011, & ID0012]	Financial Hardship	Economical
Some people prioritize immediate needs over morals, taking advantage of the chaos and distraction of rescue efforts to steal unattended belongings or strategically plan their crimes for maximum gain. [ID003, ID005, ID006, ID007, ID008, & ID009]	Opportunism	
Peer pressure can also play a role in disaster-related crime. The influence of friends, especially during difficult times, can lead people to participate in crimes such as thefts they might not otherwise commit on their own. [ID001 & ID003]	Peer Pressure	Social
Disasters can weaken social bonds. People may need to rely on aid centers for basic necessities they previously received from friends and family. This shift in reliance, along with the disruption caused by disasters, can erode trust and decrease overall social cohesion within the community. [ID0011]	Social Breakdown	

**Natural**

In relation to our research study, natural refers to unforeseen events with origins in nature that cause significant harm to human communities. Natural aspects play a critical role in understanding crime after disasters like earthquakes, fires, and floods. These events disrupt the usual order in a community, creating conditions that can make crime more likely. “The Broken Window Theory” explained by Ruhl (2024b) highlights this concept. In this chaotic environment, people might feel less safe and secure. Limited access to resources like food, water, and even police presence due to damaged infrastructure can create a sense of desperation or lack of control. These factors, combined with the weakened physical barriers caused by the disaster, make it easier for criminals to operate and potentially embolden them to commit crimes.

**Disasters**

This act as a disruptive force, triggering a chain of events that can increase the likelihood of crime. Research by Ruhl (2024c) on the “Broken Window Theory” partially explains this. Disasters, through damage and resource depletion, create a physical manifestation of disorder. This perceived breakdown in social order can lead to a sense of lawlessness and embolden criminal activity. Furthermore, disasters disrupt the existing security measures of a community, aligning with Crime Prevention Through Environmental Design (CPTED) principles according to Telgian (2023). Disasters act like a wrecking ball, damaged buildings weaken access control, power outages reduce surveillance, and displacement blurs territoriality, all creating opportunities for criminals. Disasters like floods, typhoons, fires, and earthquakes created situations where people were more likely to steal. Interviewees mentioned taking advantage of the chaos to steal necessities like food and animals (ID001, ID002, ID003, ID004, ID005, ID006) or valuables during people’s diverted attention (ID008, ID009, ID012). This aligns with research by Demir *et al.* (2024) who found that disasters disrupt social control mechanisms, leading to opportunities for theft. In some cases, the theft seems

driven by basic needs, with interviewees stealing food due to lack of necessities (ID001, ID002, ID003, ID005, ID006). This suggests a potential link between poverty and disaster-related theft. A study by Sayed and Sadat (2022) supports this notion, highlighting how economic strain caused by disasters can push people towards desperate measures.

The interview excerpts also demonstrate the cases of a thin line between taking an opportunity and acting out of charitism. For example, interviewee (ID009) expressed the desire to help after a fire but as well as taking a cellphone. This finding suggests that a moral conflict can arise when basic survival instincts clash with established community rules. For instance, one interviewee (ID0011) mentioned taking unattended food despite local rescue efforts. This highlights that even organized disaster responses might create situations where people feel tempted to exploit them, like taking things they wouldn’t normally consider.

**Moral**

This delve into the ethical dilemmas and potential breakdown of societal norms that can occur after a disaster. Disasters test our moral compass. The chaos and suffering can lead to a breakdown of societal norms, with some feeling justified in committing crimes just to survive (Little, 2018). Disasters can also pit people against each other in a desperate competition for resources, and weaken their trust in the authorities (Southard, 2017). Therefore, moral disorientation creates a breeding ground for crime. The blur between right and wrong highlights the complexity of moral decision-making in challenging situations (Balconi & Fronda, 2019).

**Survival Instinct**

Survival instinct is a double-edged sword after disasters. Disasters like earthquakes, fires, and floods strip away normalcy. For some, survival instinct pushes them to commit crimes they wouldn’t consider under normal circumstances. Stealing food or looting for supplies becomes a way to ensure basic needs are met, blurring the lines between right and wrong (Rufo, 2019). Salgado, *et al.*, (2022) describes “moral disengagement” as a mental

process where people temporarily justify actions that conflict with their usual morals. In the face of disaster, this might involve convincing oneself that stealing medicine for a sick family member is the only option, even if it goes against their moral code. However, Unsalver, et al. (2022) explained that survival instinct can also foster cooperation as communities work together to secure resources. These support the idea that survival instinct is an unconscious biological mechanism for survival in various threats.

The interview snippets reveal a complex story of survival needs clashing with moral conscience after disasters. Hunger and the desperate need for necessities like food were clear drivers for taking things (ID002, ID011). This aligns with survival instinct, a natural urge to do whatever it takes to stay alive when threatened (like in a disaster) (Taylor, J., 2020a). When disasters disrupt access to these essentials, the primal urge to survive kicks in, possibly pushing people to break societal rules. When basic needs are threatened, survival seems to take priority. People mentioned taking actions they wouldn't normally consider okay. Interestingly, some interviewees expressed guilt even though they felt they had no choice (ID002, ID06). This shows a moral conflict – the need to survive battling with feelings of doing something wrong (Taylor, J., 2020b).

#### Limited Resources

Disasters magnify the issue of limited resources. Events like earthquakes or hurricanes can disrupt supply chains and infrastructure, making basic necessities like food, water, and medicine scarce. Clean water, always essential, becomes even more crucial after a disaster, while access to non-essentials like the internet might become a limited resource for relief efforts coordinating aid distribution said Chaudhary & Peracha on their journal “Natural Disasters—Origins, Impacts, Management” (2021). When resources are limited, competition can intensify. The usual social norms and trust can weaken as people prioritize their own survival. This breakdown in social order creates an environment where property crimes like looting become more prevalent (Louis-Charles, H., Aguirre, B., & Kitnurse, J., 2023).

Several statements highlight the lack of basic necessities like food (ID002, ID011). This scarcity creates a desperate situation where people feel they have no choice but to take what they need to survive. There's an underlying frustration with the perceived insufficiency of aid provided during disasters (ID002, ID011). Interviewees seem to justify their actions as a response to perceived shortcomings in aid distribution (ID0011). They describe taking items to ensure they have food when needed, suggesting a lack of trust in the effectiveness of existing support systems. This aligns with the concept of bounded rationality, where individuals make decisions based on limited information and resources (Denis, K., 2024). In this case, the perception of insufficient aid might lead people to take matters into their own hands.

#### Lack of Supervision

In times of disasters, it often displaces families, separating children from parents and guardians. Within families, a gap in parental guidance can lead to a situation where young people face less discipline and accountability for their actions (Lanozo, et al., 2021). This, coupled with factors like boredom or peer pressure, can increase the risk of them engaging in criminal activity. Moreover, damaged schools and disrupted social services can lead to a gap in authority figures who normally provide supervision for youth. This lack of oversight can increase the likelihood of unsupervised activities that might lead to petty crimes or vandalism (Teacher, Law, (2024). And since disasters can strain law enforcement resources, this means that fewer officers are only available for patrolling neighborhoods, creating a perception of less supervision and potentially emboldening criminal activity as seen in studies like “Policing in pandemics: A systematic review and best practices for police response to COVID-19” (Waseem & Lauf, 2020), a lack of community supervision can also have a negative impact.

Disasters disrupt normal routines and weaken supervision, creating opportunities for theft (ID001, ID006, ID07, ID08). Shopkeepers might abandon stores, and panic can lead to deserted areas (ideal for stealing). Interviewees mention justifications like needing food (ID006) and the perceived low chance of getting caught (ID007, ID008). This suggests a mix of desperation and a relaxed sense of right and wrong during chaotic times. This aligns with the concept of social disorder leading to opportunistic behavior, as explored in books like “When Societies Collapse” by Begley (2021).

#### Mental

This refers to the “mental” aspects of community crime related to disasters by highlighting the psychological strain caused by these events. The stress of limited resources, fear for safety due to chaos, and witnessing destruction can contribute to anxiety, depression, and even PTSD (Gabawa, 2024). These mental health challenges can then indirectly influence criminal behavior. For instance, someone struggling with anxiety might resort to stealing to alleviate their worry about acquiring necessities.

#### Psychological Factors

During disasters, our emotional state and mental health can have a big impact on the decisions we make within our communities, sometimes even leading to crime. Feeling stressed, anxious, or depressed, or having past traumas can all play a part. These issues can be caused by problems faced by the community itself, like poverty, lack of resources, or violence, which unfortunately become worse because of disasters (Makwana, 2019a). When we're dealing with these psychological factors topped with the stress and fear that we're feeling, they can cloud our judgment, make us more impulsive, and leave us more likely to commit crimes aiming to survive (National Institute of Mental Health, 2020).

Disasters can trigger psychological distress which clouds judgment and increases impulsive behavior (ID008, ID010, ID012). Interviewees describe feelings of fear, panic, and exhaustion during disasters (ID010, ID012). This emotional state can lead to clouded judgment and impulsive decisions, like taking things without intending to steal (ID010) or feeling tempted by the situation (ID008). The thrill mentioned by one interviewee (ID009) suggests a temporary reduction in impulse control under the pressure of the situation. This aligns with research on the impact of stress on decision-making. This is supported by Nikunj Makwana (2019b) wherein she delves into the various psychological impacts of disasters, including stress, anxiety, and impaired decision-making. She explained how these emotional states can lead to impulsive behaviors and difficulty controlling urges, potentially contributing to criminal activity in some cases.

### **Economical**

The economic aspects of disasters play a crucial role in understanding the rise in crime after events like earthquakes, fires, and floods. Disasters often disproportionately impact low-income communities. Tarsi *et al.* (2021) further implied that this existing economic vulnerability become worse, creating a situation where some are more likely to resort to crime due to a lack of alternative options to meet their basic needs. Damaged infrastructure and disrupted supply chains can lead to shortages of essential goods and services. Hence, as supported by Octaviano Canuto (2021), this scarcity can inflate prices, creating a black market for essential items and potentially encouraging theft or looting to acquire them.

### **Financial Hardship**

Since disasters can devastate homes, businesses, and livelihoods, Kurt (2022) stipulated that this sudden loss of income and financial security creates a desperate situation. People struggling financially might see crime as a way to get money for basic necessities or to recoup their losses and would likely think about stealing food or looting for valuables. Not only that, the financial strain and uncertainty after a disaster can lead to feelings of hopelessness. This despair can contribute to a process called “moral disengagement” discussed in a research entitled “Climate Silence, Moral Disengagement, And Self-Efficacy: How Albert Bandura’s Theories Inform Our Climate-Change Predicament” done by Seth Heald (2018) where people temporarily justify criminal actions as a way to cope with their situation.

Disasters push people already struggling financially towards theft (ID001, ID005, ID06, ID08). Lack of income or savings forces them to steal basic necessities (ID001, ID11) or send money home (ID005). Disasters disrupt livelihoods and worsen existing financial hardships. The emotional strain coupled with the need to survive might lead to a temporary lapse in moral judgment, as some interviewees express desperation or

bitterness (ID001, ID008). This is supported by bounded rationality, where individuals make decisions based on limited information and resources. In this context, financial hardship and the immediate needs created by a disaster might limit a person’s ability to consider alternative solutions, potentially leading to acts they wouldn’t normally do.

### **Opportunism**

Based on a research by Flanagan (1964), disasters create chaos and disruption. Damaged infrastructure, communication breakdowns, and overwhelmed law enforcement create an environment where criminals see increased opportunities to operate undetected. Looting, theft, and property crimes become easier when the usual security measures are weakened. It also causes damages on homes and businesses, leaving valuables exposed and readily accessible. This abundance of potential targets tempts individuals who might not normally consider criminal activity but see an opportunity to gain something for themselves in the midst of the chaos. In fact, this can likewise embolden criminals who believe they are less likely to get caught engaging in criminal activity.

Disasters create opportunities for theft due to weakened social controls and the desperation of those affected (ID003, ID007, ID008, ID009). This aligns with the concept of moral vacuum described by sociologist Kai Erikson in the book “A Further Species of Trouble? Disaster and Narrative” by John Law and Vicky Singleton (2006). It was argued that disasters disrupt established social norms and moral codes. In the absence of strong moral norms, a moral vacuum can emerge. This is a situation where there is no clear sense of what is right and wrong. In the chaos, people might feel less bound by ethical constraints, leading to opportunistic crimes like looting (ID007, ID008) or exploiting the vulnerability of others (ID009).

### **Social**

It encompasses the ways social structures and dynamics influence crime rates. Disasters can disrupt these social structures, weakening social control mechanisms and fostering a sense of anonymity (Baysal, 2023). This can create an environment where individuals feel less accountable for their actions. On top of economic factors, social factors like poverty, weak connections within the community (like lacking close friends or support systems) and growing up around violence can all make people feel hopeless and isolated, which can lead to crime. This study also suggests that disasters can create a blurry line between right and wrong. When people are desperate, the normal rules they follow might loosen up, and some might end up doing things they wouldn’t usually consider okay.

### **Peer Pressure**

As disasters can disrupt social structures and leave people feeling isolated and alone. In this vulnerable state, some

individuals might turn to groups engaging in criminal activity for a sense of belonging and acceptance (Lopez, 2020). The pressure to “fit in” with this new group could lead them to participate in crimes they wouldn’t normally commit on their own. By witnessing others stealing or looting could make it seem less wrong, creating a sense of “everyone’s doing it” and reducing the social stigma attached to crime. This normalization can make some individuals more susceptible to peer pressure to participate. Also, disasters can create a desperate situation where people struggle to meet the basic needs. If their friends or peers are resorting to crime to survive, the pressure to join them can be strong, especially for young people who might lack alternative solutions in mind. This shared desperation creates a dynamic where crime becomes a perceived way to cope as a group. This aligns with the ideas explored in “Adolescents’ Perspectives on the Psychological Effects of Natural Disasters in China and Nepal” by Gao *et al.* (2019).

Disasters can create a chaotic and uncertain environment. In this context, people may look to their peers for guidance on how to behave. If a group of friends decides that stealing is acceptable in a disaster situation, then this can make it more likely that individual members of the group will go along with it. Even if someone has reservations about stealing, they may be afraid of being rejected by their friends if they refuse to participate.

In this case, the person who stole may have been unsure about whether stealing was the right thing to do (ID003). However, the fact that their friends were also planning to steal may have made them feel like it was a more acceptable option. This is supported by Solomon M. Fulero and Lawrence S. Wrightsman on the third edition of the book “Forensic Psychology” (2009). It discusses how social psychology can be applied to real-world situations, including disasters. The book explores concepts like conformity, obedience, and groupthink, all of which can play a role in how people behave in a crisis.

### Social Breakdown

Refers to the weakening or disintegration of the social structures and norms that typically maintain order within a community (Pattanaik, 2021). Thus, the chaos of a disaster can fragment communities. People might be displaced, separated from loved ones, and struggling to meet their own basic needs. This disrupts the usual social connections and support systems that normally help keep crime rates low. Without a sense of community and shared responsibility, individuals may be more likely to prioritize their own survival, even if it means resorting to crime. Disasters like floods, earthquakes, or economic collapse can significantly contribute to social breakdown (Hettige, 2023)

Disasters can erode trust and social capital within communities. Displacement from homes (“wala mi tarong na mapuy-an”) indicates disrupted social networks, often the foundation of community support. Seeking aid at a center suggests a shift towards centralized resources, potentially due to a strain on informal community

sharing. This highlights a breakdown in social norms and a potential rise in competition, further weakening trust and the sense of community – the very aspects that bolster resilience during disasters.

### Illuminate Connections

This portion explores the complex relationship between disasters, social disorganization, and criminal behavior. By integrating the qualitative interview themes (perpetrator narratives) with the quantitative survey data (opinions of the community), we can illuminate these connections:

### Limited Resources and Social Breakdown

The data paints a complex picture of the community’s preparedness for crime during disasters. While support services, police effectiveness, and emergency response systems function well (scores above 4), a lack of resources (3.53) and education programs (3.04) suggests a gap in addressing crime’s root causes. Qualitative data reinforces this - financial struggles worsen with disasters, and disruptions like overwhelmed authorities create opportunities for crime, especially among unsupervised youth. This aligns with social disorganization theory: overwhelmed support systems create a lack of resources, potentially leading to social breakdown and increased crime, particularly for those already facing hardship. The data suggests a need for preventative measures like increased resources and education programs to strengthen the community’s ability to weather disasters and reduce crime.

### Social Norms, Trust, and Opportunistic Crime

Toril, Davao City’s high survey ethics score (4.46) contrasts with interview narratives revealing a “moral vacuum” during disasters. Scarcity (food shortages) and perceived insufficient aid (ID002, ID011) weaken trust in support systems, potentially leading to opportunistic behavior for survival. Disruptions in social order (ID007, ID008) create situations where weakened social control and lack of supervision allow looting (ID007) and exploiting others’ misfortune (ID009), highlighting a disconnect between normal ethical behavior and actions taken during desperate times.

### Social Cohesion, Policing, and Community Resilience

While Toril, Davao City prioritizes responsibility (3.46) and cooperation (4.37) with established neighborhood watch programs (4.54), a potential chink appears during disasters. Interviews reveal opportunistic theft (ID001, ID007, etc.) suggesting a breakdown in social norms when faced with scarcity and perceived lack of support. Residents highlight the need to strengthen existing mechanisms through disaster preparedness that includes targeted training, social safety nets (ID008, ID010) and increased community engagement, particularly through stricter neighborhood watch programs during emergencies (ID002). This aligns with their belief in personal responsibility (ID003, etc.) and the importance of social support systems to prevent crime.

### Ethical Perceptions and Disaster Response

Despite positive survey results showing trust in law enforcement (mean scores above 4.33) and ethical values (honesty 4.42, anti-discrimination 4.55), interview narratives expose a potential ethical conflict during disasters. While some residents acknowledge receiving aid (ID001, etc.), concerns about its sufficiency (ID002, etc.) highlight a gap. This perceived scarcity, coupled with emotional distress from disasters, could strain ethical principles and lead to impulsive acts like opportunistic theft (ID001, ID009, etc.). This disconnect suggests a need to bridge the gap between perceived and actual aid provided, potentially mitigating the desperation that clouds judgment during crises.

### CONCLUSION

This study sheds light on the complex relationship between disasters, social disorganization, and criminal behavior in Toril, Davao City. By integrating survey data with interview narratives, we found that disasters can disrupt the social fabric, strain ethical principles, and create opportunities for crime. Disasters overwhelm existing social control mechanisms, leading to a breakdown in social order and an increase in opportunistic crimes, particularly for those already facing financial hardship. The perceived inadequacy of aid programs during disasters further weakens trust, leading desperate individuals to justify unethical behavior as a means of survival. Additionally, the emotional distress caused by disasters can cloud judgment and lead to impulsive decisions.

### Implications

This study identified several key areas for improvement to strengthen Toril, Davao City's ability to handle disasters while minimizing crime and ethical dilemmas. First, fortifying social safety nets is crucial. Ensuring existing programs effectively address basic needs during disasters, such as food and shelter, can reduce desperation and significantly decrease the likelihood of crime. Partnering with disaster relief organizations can further expand the reach of these programs, offering broader support to the community. Second, improving preparedness by investing in training programs equips residents and neighborhood watch groups with the necessary skills and knowledge to respond to disasters. Emphasizing collaboration with authorities fosters unity and strengthens the community's ability to manage emergencies effectively.

Third, promoting a sense of community responsibility enhances overall resilience. Developing programs that encourage residents to look out for each other's safety and property during disasters and strengthening neighborhood watch programs can deter crime by creating a more watchful environment. Fourth, addressing mental health is essential. Integrating mental health support into disaster preparedness plans acknowledges the emotional toll disasters take on residents. Providing programs that help residents cope with stress and make sound decisions during challenging times can reduce impulsive behavior

and ethically questionable choices. Lastly, strengthening crime prevention strategies offers an additional layer of security. Expanding awareness programs educates communities about specific crime prevention tactics that can be implemented during disasters. Strategically installed CCTV cameras can deter crime, and encouraging active participation in neighborhood watch programs fosters a sense of community ownership over safety and crime prevention.

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