

Oplan Ligtas Na Pamayanan In The Province Of Antique: Its Effectiveness And Impact On Community Fire Safety

*¹Jhetro Royce E. Espartero, ²Robino D. Cawi

^{1,2}University of the Cordilleras

EMAIL: ¹jhetroroyce.espartero@gmail.com, ²rdcawi@uc-bcf.edu.ph

Abstract

Oplan Ligtas na Pamayanan (OLP) of the Bureau of Fire Protection (BFP) serves as the organization's flagship program to promote fire prevention at the grassroots level. Although reports indicate a connection between OLP implementation and reduced fire incidents, fire hazards in residential areas continue to pose a serious threat to public safety. The study aims to determine the level of effectiveness of the program and its impact on community fire safety. It involves quantitative data collection from barangay officials and residents, and is complemented by secondary sources. Data gathering tools include researcher-made questionnaires and official records from the program implementers. Findings revealed that the OLP program and all its component activities have been evaluated as highly effective by barangay officials and residents due to its immersive, interventional, and participatory approaches. It has led to a decrease in residential fires and fire-related deaths. However, there has been an increase in fire-related injuries, due to external factors like the pandemic and limited program implementation. Overall, the OLP program has demonstrated a positive impact on community fire safety.

Keywords: BFP, Community, Fire Prevention Program, Fire Safety, OLP

1. INTRODUCTION

Oplan Ligtas na Pamayanan (OLP) of the Bureau of Fire Protection (BFP) was mandated by DILG Memorandum Circular No. 2019-040 which serves as the organization's flagship program to promote fire prevention initiatives at the grassroots level. The BFP Project Bayanihan Revised Comprehensive Implementing Guidebook (2022) states that this program aims to equip barangays with systematic and complete strategies and protocols for fire prevention, emergency response, and disaster risk management. In addition, it also outlines that the development of this initiative is a direct response to the growing need for a fire safety program that is characterized by enhanced adaptability, comprehensiveness, and inclusivity. The primary objective of this program is to cater to the specific needs of cities, municipalities, and barangays located in both urban and rural regions in terms of mitigating the risks associated with fire hazards.

Fire-safe community and protecting the quality of life is a shared responsibility that extends beyond the BFP personnel. The BFP also relies on the assistance of the citizens they serve to prevent and suppress destructive fires. It is crucial for the BFP to actively engage with citizens as part of the OLP's main objective. This establishes the OLP of the BFP as a parallel initiative to the Police Community Relations (PCR) program of the Philippine National Police. The PCR Manual (2012) explains that PCR is an approach that fosters collaboration between law enforcement agencies and the community and is recognized as an effective and evolving system that police organizations worldwide are increasingly adopting. Further, the collaboration between police and the community facilitates the development of more holistic approaches to address evolving issues within local neighborhoods, as opposed to a singular emphasis on law enforcement efforts (Schlosser, 2020).

Ensuring fire safety is a paramount consideration owing to its critical impact on human life and the protection of property (Gautami et al., 2020). In response to the increasing number of fire incidents across the country, the BFP launched an extensive awareness campaign in 2019 to mark Fire Prevention Month as mandated by Presidential Proclamation No. 115-A. The campaign was officially inaugurated at the Quirino Grandstand in Manila where the implementation of the OLP was also introduced (De Vera & Noriega, 2019). With the introduction and implementation of OLP in 2019, it was envisioned that a fire-safe community would contribute to an enhanced quality of life for every Filipino (BFP OLP Guidebook, 2022).

According to the BFP Memorandum Circular released on June 13, 2022, the first year of OLP implementation showed positive results due to its targeted and proactive strategies aimed at high-risk

communities. The program successfully reduced fire incidents by 12.41% in the designated barangays, surpassing the target of 0.8%. Although BFP makes significant progress in its ability to address fire incidents, there are still challenges in its operations, specifically related to the availability of manpower and equipment (Dejillas & Somera, 2023).

Despite existing reports concerning the link between the BFP's implementation of the OLP and a decrease in fire incidents, the persistence of these fire incidents remains a significant challenge. With this, further investigation is needed to determine the effectiveness and impact of this community-based fire protection program in our communities.

The OLP continues to be an innovative and enhanced fire protection program. However, regarding its value as a government program, no assessment of its existence has been conducted. This study remains organic and may serve as a primer for examining government initiatives to foster fire safety in communities. Therefore, the potential significance of this research lies in its capacity to provide insights for future fire prevention strategies, through the evaluation of the current approaches. There remains a necessity to cultivate a more profound comprehension of the existing fire prevention initiatives and to optimize the effectiveness of future fire prevention initiatives.

2. METHODOLOGY

The study utilized a descriptive research design to investigate the implementation and impact of the Oplan Ligtas na Pamayanan (OLP) as a community-based fire prevention program of the Bureau of Fire Protection in the Province of Antique. McCombes (2023) explains that descriptive research design focuses on providing accurate and systematic descriptions of populations, circumstances, or phenomena.

The study utilized primary and secondary sources of data. The primary sources of data comprised the barangay officials, and residents in the Province of Antique where OLP was already implemented. Meanwhile, official records from the BFP Regional Office 6 were acquired to examine the Key Performance Indicators (KPIs) included in the OLP manual. Further, this also determined the number of occurrences of residential fires and the number of fire-related deaths and injuries, which covered the period before (2016 to 2018) and after (2019 to 2021) the implementation of the program. These records provided valuable insights into the impact of the OLP program on community fire safety.

The respondents for this study included both barangay officials and residents. These individuals are integral to the OLP program, as they directly benefit from its implementation and serve as partners to the BFP in their initiatives related to fire prevention and suppression. They evaluated the effectiveness of the OLP program and all its component activities. To qualify as barangay official respondents, they must satisfy the following inclusion criteria: a.) must be holding a position within the barangay council, and b.) must have participated in the component activities of the OLP implementation within their barangay. On the other hand, to qualify as resident respondents, they must meet the following inclusion criteria: a.) they must be occupants of the selected barangays, and b.) duly registered voters within the barangay.

The level of effectiveness of the OLP program and all its component activities was identified using a researcher-made questionnaire. This research tool was validated for its reliability using Cronbach's Alpha before the actual collection of data. The research instrument was pretested among forty-three (43) respondents from a priority barangay in Iloilo City where OLP has been implemented. On the level of effectiveness of the OLP program and all its component activities, the result of its reliability test is .940 Cronbach's Alpha. The questionnaire is reliable based on the results of the reliability test.

The quantitative data were analyzed using descriptive statistical tools such as mean, standard deviation, frequency, and percentage. To interpret the perception of respondents on the level of effectiveness of the OLP program and all its component activities, the following scale of means was used:

Response	Scale	Interpretation
4	3.26-4.00	Highly Effective
3	2.51-3.25	Effective
2	1.76-2.50	Moderately Effective
1	1.00-1.75	Least Effective

The significance level for all statistical computations was set at 0.05. The IBM-Statistical Package for the Social Sciences (SPSS) version 21 software was utilized to process all data analysis.

Ethical Consideration

The ethical considerations about the conduct of this research revolve around the essential aspects of voluntary involvement, informed consent, and confidentiality. The purpose and nature of the study were communicated to the respondents. The participants were provided with a copy of the informed consent that outlined the procedures that were conducted as part of the study and emphasized that their participation was voluntary and without any form of compensation. It provides a guarantee that all confidential information collected during the study was handled with strict confidentiality and was solely used for this research. To safeguard the anonymity of the key informants, codes were used in the study.

Additionally, the researcher explained the consent form during the orientation, and participants have the freedom to withdraw anytime. If the respondents express a desire to abstain from participation or withdraw from the study, they have the option to communicate their intention to the researcher. Further, it is important to note that obtaining consent from the participants is a crucial step in the data-gathering process, particularly when it comes to recording any information. The collected data was securely stored on the researchers designated storage device, ensuring anonymity and confidentiality.

3. FINDINGS

The Level of Effectiveness of the OLP Program and all its Component Activities as Perceived by the Barangay Officials and Residents

The table below presents the effectiveness of the OLP program and all its component activities as perceived by the barangay officials and residents in the province of Antique.

Table 1. Level of Effectiveness of the OLP Program and all its Component Activities

BFP OLP Programs and Component Activities	Barangay Officials			Residents		
	Mean	SD	Description	Mean	SD	Description
Handang Pamayanan Program	3.35	.57	Highly Effective	3.37	.71	Highly Effective
Bayanihan Program	3.44	.51	Highly Effective	3.36	.68	Highly Effective
Kaagapay Program	3.39	.58	Highly Effective	3.36	.75	Highly Effective
Lingap Program	3.58	.53	Highly Effective	3.39	.75	Highly Effective
Grand Mean	3.43	.49	Highly Effective	3.36	.66	Highly Effective

Note: Interpretation is based on the following scale. Highly Effective (HE)= 3.26-4.00, Effective (E)= 2.51-3.25, Moderately Effective (ME)= 1.76-2.50, Least Effective (LE)= 1.00-1.75

Table 1 revealed that the barangay officials perceived the OLP program and all its component activities as highly effective (M=3.43, SD=.49). Similarly, the residents perceived the OLP program and all its component activities as highly effective (M=3.36, SD=.66). These indicate that all the programs are working effectively and are highly successful in producing the desired outcomes of a fire-safe community.

Response time is the most crucial and influential factor when responding to fire incidents. Challands (2010) confirms that there is a strong relationship between the response time of fire services and the extent of structural damage. Hence, fire response is a complex issue that necessitates the involvement and support of the entire community. By fostering collaboration within the locality, every individual in the community develops a deep understanding and recognition of their crucial role in maintaining a fire-safe community.

This is consistent with the philosophy of community policing which posits that the community and fire personnel collaborate to identify and resolve fire-related issues within the community. This philosophy

underscores the importance of community engagement in maintaining public safety (Gill et al., 2014). This approach fosters positive public safety outcomes by promoting active participation and engagement from both parties in the prevention of fire hazards.

These findings also support several empirical studies that have shown that the level to which the general public is equipped to deal with different disasters, such as residential fires, is a critical determinant in mitigating the detrimental consequences of such fire incidents. (Hussaini, 2020; Olawuni, et al., 2020; Xu, 2019).

Additionally, Ardani and Permana (2019) underscore the significance of community participation in fire management, highlighting that the community has assumed the role of a partner in fire suppression by proactively extinguishing fires before the arrival of authorities. According to Menya and K'Akumu (2016), collaboration has the potential to empower and connect all of the key actors engaged in fire prevention programs, resulting in the effective and efficient management of fire disasters.

Meanwhile, the “Handang Pamayanan Program” which is one of the component activities of the OLP program that involves comprehensive community planning and preparation was perceived as highly effective ($M=3.35$, $SD=.57$) by the barangay officials. Likewise, the residents perceived the OLP program and all its component activities as highly effective ($M=3.37$, $SD=.71$). This means that this program has achieved notable success in attaining the desired outcomes in successfully preparing the community through collective planning and preparation. This program offers a comprehensive community fire protection plan that includes a thorough evaluation of potential hazards, effective strategies for eliminating these hazards, and a tactical defense plan.

This corroborates with the study of Lagata et al. (2022), highlighting the importance of community collaboration and cooperation in planning, executing, and training locals to develop a safety plan for fire incidents. This approach was found to be effective in promoting the safety of the community against fire hazards. It is imperative to recognize the shared responsibility of ensuring public safety, which requires implementing preventive measures to protect communities' lives, properties, and overall well-being from the adverse effects of fires (Fitri & Wibowo, 2012).

Furthermore, the research conducted by Urriza (2023) revealed that respondents in selected municipalities of Laguna perceived the community fire protection plan as highly implemented. This suggests that the BFP program was effectively coordinated at the barangay and municipal levels. According to Momblan (2019), the community fire protection plan is intended to facilitate the identification of areas that are susceptible to fire and the establishment of a readiness plan for incidents of this nature.

Meanwhile, the barangay officials perceived the “Bayanihan Program” highly effective ($M=3.44$, $SD=.51$). Similarly, the residents perceived the “Bayanihan Program” as highly effective ($M=3.36$, $SD=.68$). This suggests that the program is highly functional and is achieving its goals of creating a fire-ready community by establishing and training all barangay volunteer fire brigades known as the Community Fire Auxiliary Group (CFAG) to respond to local fire incidents while the BFP teams are in transit.

The BFP personnel recognized the effectiveness of the “Bayanihan Program” in quelling the possible spread of fire. The establishment of the CFAG in the targeted barangays is highly important as they play a vital role as a force multiplier for the BFP during fire emergencies. For instance, the CFAG members and the community were able to effectively manage the fire hazards during an actual fire call. Upon arriving at the fire scene, the fire was already under control because of the reaction of the community to eliminate fire which is also prompted by self-preservation aside from being compelled to help neighbors in need. This program played a crucial role in fire suppression, enabling the CFAG and the community to take immediate action without relying on any instructions. Upon arriving at the fire scene, the BFP personnel immediately began the mopping operation as the fire had already been suppressed.

Furthermore, Senior Fire Officer 1 Jefferson Cordero, the officer in charge of the BFP-Antique Provincial Fire Safety Enforcement Section, stated in the report of Petinglay (2024) that the CFAGs in remote barangays function as the first line of defense for the organization. He stated, “The BFP-Antique had been conducting CFAG training participated (in) by barangay officials and other community folks on basic rope technique, bucket relay, and emergency services that they were able to assist us.” On February 12-13, 2024, the forest fire

that devastated approximately 20 hectares of agricultural and protected areas in the Municipality of Anini-y was extinguished by the BFP with the assistance of the CFAG.

The study conducted by Menya and K'Akumu (2016) confirms the importance of inter-agency collaboration in accomplishing the objectives of fire management programs. Effective implementation of a fire management program relies on strong cooperation and coordination among all organizational levels, as highlighted by the National Interagency Fire Centre (NIFC) (2005).

Furthermore, this finding corroborates the study of Liu et al. (2011) that public participation is crucial in reducing the negative impact of fire incidents on the community. Communities are the fundamental social units that serve as the cornerstone of both people's productivity and their sense of security. In the realm of community emergency management, a significant number of operational procedures necessitate the active engagement and cooperation of multiple stakeholders.

Correspondingly, the barangay officials perceived the "Kaagapay Program" as highly effective ($M=3.39$, $SD=.58$). The residents also viewed the "Kaagapay Program" as highly effective ($M=3.36$, $SD=.75$), implying that this program was also successful in achieving the desired outcomes by effectively establishing strong community partnerships and cultivating empathy among the residents through designating an assigned firefighter their area of responsibility and ensuring the conduct of fire safety lectures and seminars.

This was supported by the findings of Simpson et al. (2014) that fire service organizations also employ community risk reduction techniques to improve fire prevention and preparedness. According to Brown (2019), one of these mechanisms is fire safety education, which plays a crucial role in both the prevention and preparation of fire incidents. Donahue (2019) also provided additional evidence that public education plays a vital role in effective fire prevention by educating citizens on the appropriate actions to take during such events.

Lastly, the "Lingap Program" was perceived by barangay officials as highly effective ($M=3.58$, $SD=.53$). Similarly, the residents perceived the "Lingap Program" as highly effective ($M=3.39$, $SD=.75$). It can be inferred that the program was highly successful in attaining the desired outcomes of empowering the community by providing fire safety educational materials and conducting house-to-house fire safety surveys. This activity has encouraged individuals to be proactive and responsive in taking corrective measures and promptly addressing fire hazards in their respective residences.

This was corroborated by the theory of target hardening that restriction or limitation of access to desirable targets prevents victimization (Ireland, 2020). This theory advances the idea of implementing initiatives to reduce the vulnerability of potential targets to fire threats. Further, the studies of Clare et al. (2012) and Torani et al. (2019) confirmed the importance of public education and focused home visits by fire and rescue services. These interventions have consistently demonstrated promising results across a range of outcome measures.

Moreover, Al-Hajj et al. (2022) identified that a range of interventions, such as home visits, distribution of fire safety educational materials, inspections, and installation of smoke alarms, have shown significant effectiveness in reducing occurrences of fire incidents and the resulting mortality rate. Kirtley (2023) asserts that actively engaging with residents is crucial for gaining a thorough understanding of community information. This can be accomplished by building strong relationships with members of the community through various forms of engagement such as distributing educational materials on fire safety and conducting comprehensive house-to-house fire safety surveys.

Overall, these four (4) programs of the OLP have been evaluated as highly effective due to their immersive, interventional, and participatory approaches. This program focuses on implementing effective strategies and providing solutions to cover all aspects of fire safety from ensuring a fire-ready community, collaborative fire suppression efforts, fire safety awareness campaigns, and building strong community relations to bridge the gap in providing holistic and scientific solutions to uncontrolled and ever-increasing fire incidents in residential areas. The community and local leaders benefited from these programs that are crucial for establishing a fire-safe community.

Impact of the OLP Implementation on Community Fire Safety

The Oplan Ligtas na Pamayanan (OLP) which is a community-based fire prevention program has been implemented as the principal initiative of the Bureau of Fire Protection (BFP) to address the fundamental

problem of uncontrolled and continuously increasing fire incidents in residential areas. The hallmark of this program focuses on educating, organizing, and empowering communities to address fire hazards effectively. The researcher sought data from the Fire Safety Enforcement Division of the BFP Regional Office 6 to provide information on the target and actual accomplishment based on the program's Key Performance Indicators (KPIs). However, the COVID-19 pandemic posed challenges and necessitated modifications to the OLP implementation in 2020. Hence, the BFP only furnished data during the pre-pandemic period in 2019 and the post-pandemic period in 2023. The table below shows the target and actual accomplishments of the OLP program based on the various KPIs for 2019 and 2023.

Table 2. Pre-Pandemic and Post-Pandemic Target and Actual Accomplishments of the OLP Program Based on KPIs

OLP Key Performance Indicators	Pre-Pandemic (2019)			Post-Pandemic (2023)		
	Target	Actual	Percent	Target	Actual	Percent
Number of barangays that have formulated their own Community Fire Protection Plan (CFPP)	15	15	100%	86	86	100%
Number of fire stations that have formulated and posted Fire Hazard Maps	15	15	100%	86	86	100%
Number of barangays that have formulated and posted Individual Fire Hazard Maps	15	15	100%	86	86	100%
Number of organized and trained Community Fire Auxiliary Group (CFAG)	15	15	100%	86	86	100%
Number of barangays with assigned Bumbero sa Pamayanan	15	15	100%	86	86	100%
Number of house-to-house fire safety surveys conducted	4,557	4,770	104.67 %	25,182	25,209	100.11%
Number of fire safety informative materials distributed	4,769	5,859	122.86 %	24,127	23,279	96.49%

Source: Fire Safety Enforcement Division, BFP Regional Office 6

As shown in Table 2, the BFP personnel in the province of Antique was able to meet its targets both during the initial year of OLP implementation in 2019 and after the reactivation of the program in 2023. The BFP has made significant progress in expanding its reach, from 15 barangays in 2019 to 86 barangays in 2023. It is also evident that there is an increase in the number of house-to-house fire safety surveys and fire safety campaigns which is crucial in enhancing fire safety standards and promoting community awareness of fire prevention and preparedness in the community.

The BFP successfully achieved its target of establishing a Community Fire Protection Plan (CFPP) in every barangay. Moreover, all the targeted barangays and fire stations have created and posted Individual Fire Hazard Maps, established, and trained their Community Fire Auxiliary Groups (CFAG), and assigned Bumbero sa Pamayanan. Additionally, fire safety surveys and information campaigns were achieved by reaching out to households and distributing informative materials to promote fire safety.

This implies that the OLP program has successfully achieved most of the KPIs in both the pre-pandemic and post-pandemic periods. These successful rates are attributed to the extensive community fire safety and fire

prevention campaigns of the BFP personnel. They have dedicated significant time and effort to educate the communities through the OLP's various activities, demonstrating a proactive approach to preventing fire hazards. Their efforts are reflected in their tangible achievements of the KPIs of the OLP program. Abdelhadi et al. (2022) explained that KPIs are crucial metrics that are vital to the performance of an organization since it is used to evaluate the success or failure of a program.

Meanwhile, during the pandemic period, there are modifications made to the OLP implementation to adhere to the recent COVID-19 restrictions and embrace new approaches for implementing its fundamental principles. The BFP employed an innovative strategy by implementing the Modified OLP New Normal through OLP on the Road. The following table details the target and actual accomplishments of the OLP on the Road spanning the years 2020 to 2022.

Table 3. OLP on the Road Target and Actual Accomplishments from 2020 to 2022

Year	Target	Actual Accomplishment	Percent
2020	474	474	100%
2021	5,043	6,581	130.50%
2022	3,188	3,759	117.92%

Source: Fire Safety and Enforcement Division, BFP Regional Office 6

Table 2 revealed that the BFP personnel in the province of Antique were able to meet its targets during the implementation of OLP on the Road from 2020 to 2022. Fire trucks were utilized to conduct information and education initiatives, such as disseminating fire safety information to different barangays on a weekly or biweekly basis covering various topics. This implies that despite the problems encountered during the global health pandemic, the BFP persistently carried out fire safety awareness campaigns and advocated for compliance with fire safety regulations among residents in the community.

Table 3 suggests that achieving the target established for each program KPI substantially enhances public safety against fire threats and fosters communities that are well-informed and prepared to prevent fire hazards. The implementation of this fire prevention program is significant in the protection of lives and property, as well as the development of trust and cooperation among all stakeholders.

Elyea (2022) emphasized that by conducting thorough performance reviews and continuously monitoring outcomes, fire departments may enhance the quality and effectiveness of their services. However, measuring the intended outcomes of fire services, such as the prevention or suppression of emergencies and the subsequent preservation of human lives and property, can be challenging.

In this study, the researcher sought data from the Operations Division of the BFP Regional Office 6 to provide information on the number of residential fires and fire-related deaths and injuries before and during the OLP implementation. The BFP was unable to provide the requested data from 2014 and 2015, which is necessary for a thorough five-year comparative analysis. Despite this setback, the researcher analyzed the available data covering only three years. The table below shows the number of residential fires and fire-related deaths and injuries before and during the program implementation.

Table 4. Number of Residential Fires and Fire-Related Deaths and Injuries Before and During the OLP Implementation

	Before OLP Implementation (2016-2018)	During OLP Implementation (2019-2021)	Percent of Increase/ Decrease
Number of Residential Fires	153	117	-23.53%
Number of Fire- Related Deaths	1	0	-100%
Number of Fire- Related Injuries	2	14	600%

Source: Operations Division, BFP Regional Office 6

The data in Table 4 shows the recorded number of residential fires and fire-related deaths and injuries in the province of Antique that encompasses three years before and during the program's implementation. Within

three years following the implementation of the program, there was a notable reduction of 23.53% in the occurrence of residential fires, with a total of 117 incidents recorded compared to 153 incidents during the corresponding period.

Regarding the number of fire-related deaths and injuries, there was one (1) recorded casualty and two (2) injuries before the program was implemented whereas there were no casualties reported but a total of fourteen (14) injuries recorded during the program implementation. The number of fatalities has decreased by 100% while the number of injuries has increased by 600%.

The reduction of fire incidents and fire-related fatalities observed during the OLP implementation demonstrates the positive impact of the community-based fire prevention campaign within the area. However, since the period of comparison covers the pandemic period in 2020 and 2021, this decline may also be attributed to the COVID-19 pandemic since many individuals have been forced to stay at home. According to Suzuki and Manzello (2022), the worldwide pandemic caused by COVID-19 not only resulted in fatalities but also necessitated significant adjustments to the lives of millions of people worldwide.

Many countries implemented stay-at-home orders in response to the COVID-19 pandemic. As a result of government directives, individuals were forced to remain indoors unless necessary, leading to a notable decrease in the overall mobility of the population. Significant changes were made to various aspects of the deployment of emergency services, including fire and rescue services (Koester & Greatbatch, 2023; Solis et al., 2022; Dudziński et al., 2021).

The notable decline in fire incidents can mostly be attributed to the prolonged durations individuals spend at home due to widespread lockdowns and remote working arrangements. This resulted in increased vigilance and immediate response to potential fire hazards. Hall (2023) explains that the presence of occupants in residential areas leads to more efficient detection and control in reducing the spread of fire. This likely had a pivotal impact in decreasing both the occurrence and severity of fire occurrences in residential settings.

On the contrary, the substantial increase in the number of fire-related injuries may not necessarily reflect the failure of the OLP program. This can also be attributed to several factors brought about by the pandemic. One of the major factors was the restrictions or the lockdown of the community, which limited and delayed the movement of the residents to respond to the fire incidents within their locality. Due to the change in life dynamics, the community was not able to respond to fire incidents promptly including rescuing and applying first aid to fire victims.

Due to the recent pandemic, school and home visits were put on hold, significantly impeding the educational process and the community's access to fire prevention and safety standards and education (Brown, 2019). According to Porth et al. (2018), the increase in fire incidents in the United States can be attributed to a limited understanding of real-world situations caused by the isolation of students and families. The rise in fire incidents has led to a considerable number of civilian injuries, tragic fatalities, and substantial financial losses.

This coincides with the study of Eller (2023) that there has been a notable increase in residential fires due to a lack of proper education among families and children regarding fire risks and hazards during the pandemic period. Fire prevention and safety education had a significant impact on enhancing the understanding of fire safety and the ability to respond efficiently to fire emergencies (Eller, 2023).

The increase in fire-related injuries can also be attributed to the limited implementation of the OLP program. The program gives priority to high-risk barangays in fire occurrences while leaving other barangays not covered by the program implementation. Although the organization attained its targets as reflected in Table 4 and made substantial progress in increasing its presence in the province of Antique, this only accounts for 14.58% of the total barangays. Specifically, out of the 590 barangays, only 86 underwent OLP implementation.

Fire prevention and protection strategies supported by a thorough analysis of fire incident data have been implemented in many countries. The success of these measures has been confirmed through the collection of such data (Fernandez & Echeverria, 2019; Ghassempour et al., 2022). In the United States, the Shelbyville Fire Department in Tennessee implemented a fire prevention program in 2003, which included education, inspections, and investigations. Over ten years, there was a 26% decrease in structure fires and a 40% decrease in fire-related injuries. This suggests that the fire prevention efforts had a positive impact on reducing fires and injuries in Shelbyville (Nicholson, 2017).

The OLP program in the Philippines serves as the new and improved approach of the BFP toward the increasing number of fire incidents in the country. During the initial year of OLP implementation in 2019, fire incidents decreased by 22.52%, while fire-related fatalities and injuries decreased by 43.53% and 43.18%, respectively (BFP Accomplishment, 2020).

The BFP has also recorded a 17.62% decrease in fire incidences in Western Visayas in 2020. This reduction can be ascribed to the pandemic, which has driven several people to stay within their residences. Furthermore, this outcome was partly attributed to the thorough monitoring conducted by BFP personnel, who carefully monitored the communities to detect potential fire risks (Marzan, 2021).

The significant impact of community-based fire safety initiatives in reducing the occurrence of residential fires, as well as the associated fatalities and injuries, is consistently supported by several studies (Thomas et al., 2021). Ensuring fire safety is a paramount consideration owing to its critical impact on human life and the protection of property (Gautami et al., 2020).

An article published by The National Institute of Justice in 2021 as cited by Eller (2023), highlighted the effectiveness of home visits by fire professionals in preventing in-home fires. The study emphasized the significant impact of these visits as a powerful deterrent. These efforts had a profound influence on reducing the likelihood of accidental fires and reinforcing the importance of fire safety education.

Moreover, the findings were also corroborated with the study of Al-Hajj et al. (2023) that the “HomeSafe” program in Canada, which is a community-based fire prevention program, decreased the frequency and severity of residential fires, thereby establishing a solid foundation for evidence-based, consistent, and systematic sustainable fire prevention initiatives.

Additionally, Deave et al. (2017) discovered that engaging in regular in-person visits to households, maintaining frequent contact with area schools, and actively participating in community events had been proven to decrease instances of adolescent fire-starting activity effectively.

The evaluation of the effectiveness of fire prevention strategies shows that fire prevention activities have a clear impact on the reduction of the number of fires (Taylor et al., 2019). With this, the BFP asserted in the report by Chavez (2023) that all citizens, government agencies, civic organizations, and private firms must collaborate to mitigate the occurrence of fire incidents in the country. The success of this initiative hinges on the full support of the public, beginning at the community level.

The OLP program showed significant potential in fulfilling its function which is to prevent fire-related incidences as indicated by the data presented in the previous tables. The KPIs did not only attain its target but it also expanded its reach. It can be noted that there was a significant decrease in the number of residential fires and fire-related deaths. However, there was an increase in the number of fire-related injuries which could be attributed to other factors such as the pandemic and limited program implementation. The aforementioned success was indicative of the positive impact of the OLP in the community.

4. CONCLUSIONS

Based on the findings of the study, the following conclusions are drawn:

The stakeholders assessed the OLP program and its various activities as beneficial in promoting community preparedness and protection against fire incidents, as well as promoting collaboration and partnership among community members.

The residential fire incidence and fire-related deaths decreased, which could be attributed to the successful implementation of the OLP. The OLP implementers were able to reach and go beyond their target accomplishment. The increase in fire-related injuries can be attributed to many factors such as the pandemic and the limited implementation of the OLP.

5. RECOMMENDATIONS

Based on the findings, the following are recommended:

1. The BFP through civic society groups may organize a community fire brigade and capacitate them to help in fire prevention and suppression efforts.

2. The BFP may revisit from time to time the component activities of the OLP to ensure the relevance and effectiveness of the program. This can be achieved through the development of a sustainability plan that outlines strategies for maintaining program activities and succession plans among stakeholders.
3. The Community Fire Auxiliary Groups (CFAG) of the barangays who benefited and trained may be tapped by the BFP to help in the capacity building of other barangays in the province of Antique.
4. Future studies may be conducted to explore other areas that influence the frequency and severity of fire incidents in barangays where community-based fire prevention initiatives have been fully implemented.

Contribution of each author to the manuscript:

Task	% of contribution of each author	
	A1	A2
A. theoretical and conceptual foundations and problematization:	70%	30%
B. data research and statistical analysis:	100%	
C. elaboration of figures and tables:	80%	20%
D. drafting, reviewing and writing of the text:	80%	20%
E. selection of bibliographical references	100%	
F. Other (please indicate)		

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Declaration of Interest Statement

The author(s) declare that they have no known conflicting interests in financial or personal relationships that possibly affected and or influenced the result of this research undertaking.

Data Availability

Access to the datasets used or generated during the current study is available on reasonable request from the corresponding author.

Consent for Publication

All authors have read and approved the final version of the manuscript and consent to its publication. Where applicable, informed consent for publication of identifiable data or images has been obtained from the participants involved in this study.

Ethics Approval and Consent to Participate: Ethical approval for this study was obtained from the University of the Cordilleras. All participants gave informed consent before participating. Participation was voluntary, and anonymity was assured.

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