

MANAGEMENT OF THE DISTRIBUTION OF LOGISTICS ASSISTANCE FOR DISASTER SURVIVORS: STUDY ON THE MAKASSAR FLOOD IN SOUTH SULAWESI

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Abstract: This study aims to analyze the governance of the distribution of disaster survivor logistical assistance in the Makassar flood disaster in South Sulawesi. This research is qualitative with a case study method that explores the governance of the distribution of disaster survivor logistical assistance (Study on the Makassar flood disaster, South Sulawesi). Using primary and secondary data obtained during the study by conducting in-depth interviews using interview guidelines. The results showed that the governance of the distribution of disaster survivor logistics assistance was less effective with various obstacles in the aspects of planning and needs, budgeting, procurement, distributions, maintenance, and controls, so the receipt of logistical assistance for disaster survivors was considered very slow. The limitations of this research are focused on the governance of the Regional Disaster Management Agency, Makassar City Government, and Central Sulawesi Provincial Government in implementing the distribution of logistical assistance for flood survivors. The results of this study are expected to provide input for the Makassar City Government, the South Sulawesi Provincial Government, and the Regional Disaster Management Agency to improve public services, especially regarding disaster management and the distribution of effective and optimal logistical assistance. In addition, this research can be used as a reference for further research by taking the topic of disaster

Keywords: Governance, Distribution, Logistics, Disaster, Flood, Planning, Procurement, Budgeting, Disaster Management

1. Introduction

Indonesia is a country that has fertile soil, beautiful nature, and other natural resources from Sabang to Merauke. However, Indonesia also has various potential disasters, both natural and non-natural. Disaster is a part of human life that comes unexpectedly. Disasters that come always have a bad impact on humans. Some natural disasters that frequently hit Indonesia are tsunamis, earthquakes, floods, landslides, and volcanic eruptions. Indonesia has a relatively high level of disaster vulnerability. Among Indonesia's various types of natural disasters, floods still dominate compared to other disasters. (Sahilala, 2015). Flood is a phenomenon where land that is usually dry becomes inundated with water; the following events are caused by high rainfall that occurs non-stop and occurs successively. Not only that, but the occurrence of floods can also be caused by the overflow of air and air volume that exceeds the capacity of the river flow so that the soil can no longer absorb water. A flood is an event or situation in which an area or land is submerged due to increased water volume.

Likewise, the recent flood disaster in Makassar, South Sulawesi, due to extreme weather. Based on data from the Makassar City Regional Disaster Management Agency (BPBD), 2022 there were 3,046 residents' houses were flooded in Makassar. In addition, still referring to data from the Makassar City Regional Disaster Management Agency (BPBD), 8,687 people testified as a result of flooding in Makassar. In total, 2,514 heads of families (KK) were subject to the victim. According to data from the Makassar City Regional Disaster Management Agency (BPBD), currently, 4 (four) sub-districts are handling floods in Makassar. Meanwhile, 3 (three) sub-districts witnessed the worst flooding causing residents to flee. The third sub-districts are Manggala, Biringkanaya, and Tamalanrea sub-districts, with a total of 1,479 people displaced in 23 evacuation points. Here are the details Manggala District, there were 286 Heads of Families in total; 1,136 refugees spread over 15 (fifteen) evacuation points; Biringkanaya District recorded 81 heads of households with a total of 318 refugees spread over 7 (seven) evacuation points; and Tamalanrea District recorded 10 heads of recreational families with a total of 25 refugees who were only in 1 (one) evacuation point. (Detikcom team, 2022).



Source: detikcom, 2022

Figure 1. Flood Disaster Conditions in Makassar, South Sulawesi, Saturday, December 12, 2022

The Indonesian government's focus on the impact of natural disasters requires a disaster management system, pre-disaster mitigation, disaster, and post-disaster. As stated in the Law of the Republic of Indonesia Number 24 of 2007 concerning Disaster Management, disaster management is an effort that includes establishing development policies that cause disasters, disaster prevention activities, emergency response, recovery, and reconstruction. Each of these three efforts has functions and objectives related to natural disaster management, and the three management processes are also very important in dealing with natural disasters (Purnama & Murdiyanto, 2013).

Indonesia is located in a disaster-prone area, so the term ring of fire is often used to describe the magnitude of the disaster potential for Indonesia's territory. Disaster is a very comprehensive and multi-dimensional discussion. In responding to disaster management, whose frequency continues to increase yearly, all parties must understand and implement disaster thinking. Periodically, Indonesia has built a national disaster management system. This national system includes several aspects, namely legislation, institutions, and financing. Thus, to cope with the occurrence of disasters, the government has formed a Regional Disaster Management Agency (BPBD) at the regional level and a National Disaster Management Agency (BNPB) at the central level (Zaroni, 2017). The establishment of the Regional Disaster Management Agency (BPBD) has become the regional government's authority, as referred to in the Presidential Regulation of the Republic of Indonesia Number 8 of 2008 Article 1 paragraph 1. The Regional Disaster Management Agency (BPBD) is a non-departmental government institution that carries out disaster management tasks in both Provinces and Regencies and Cities with guidelines on policies set by the National Disaster Management Agency (BNPB).

2. Literature Review

Public administration is used to manage governance in Indonesia. This is to several opinions of public administration experts. (Pasolong 2012: 55), Explains that public administration is a process in which public resources and personnel are organized and coordinated to formulate, implement and manage (manage) decisions in public policy. When associated with natural disasters, public administration run by the government has a very big responsibility. When natural disasters that occur in Indonesia are the responsibility of the central government and local governments, it is hoped that disaster management implementation will improve (Sahilala, 2015).

Natural disasters threaten and disrupt human life and livelihoods caused by natural or human factors, which can cause fatalities, environmental damage, loss of property, and psychological effects on humans. In general, natural disasters are divided into 3 types: geological natural disasters, meteorological natural disasters, and extraterrestrial natural disasters (Dian & Munadi, 2017). These disasters are floods, landslides, forest fires, earthquakes, tsunamis, droughts, volcanic eruptions, global warming, hurricanes or tornadoes, tropical storms, and disease outbreaks. Based on the Regulation of the Head of the National Disaster Management Agency Number 7 of 2008 concerning Guidelines for the Provision of Assistance to Fulfill Basic Needs in Chapter V, it is explained the types of assistance, including Food Aid, given in the form of food ingredients, or cooking provided by public kitchens. Food aid for vulnerable groups is provided in a special form. Clothing Assistance is personal equipment that is a very important human need to protect oneself from the climate and maintain health and privacy.

In the context of public administration, disaster cannot be separated from the notion of disaster management. Disaster management can be used as a reference for guaranteeing the implementation of prompt and adequate assistance for disaster victims; this is done to achieve a fast and effective recovery. Disaster management is meant to carry out the normalization of people's lives, achieved quickly, and reduce the loss of life and property. The important thing about disaster management is that there are concrete steps in controlling a disaster so that victims can be saved quickly and accurately and post-disaster recovery efforts can be carried out quickly. (Purnomo & Sugiantoro, 2010:14).

The main objective of disaster management is concrete steps to control disasters so that victims can be saved quickly and accurately and post-disaster recovery efforts can be carried out quickly (Purnomo & Sugiantoro, 2010:14). As for several opinions related to disaster management, among others "An applied science that seeks, through systematic observation and analysis of disasters, to improve measures relating to prevention, mitigation, preparedness, emergency response and recovery" as (Carter, 1991) and (Pearce & Pearce, 2000) "A process that helps a community to respond, both before and after a disaster, in such a way as to save lives, to preserve property; and to maintain ecological, economic and political stability in the affected area"; meanwhile according to Lindell et al (2006) Disaster Management an ongoing process in which every individual, group, and community tries to manage risks to avoid or ameliorate the impact of a disaster resulting from a disaster (Samudra, et al., 2023a); and

Implementation of disaster management is "a series of efforts that include the establishment of development policies that risk disaster, disaster prevention activities, emergency response, and recovery" (Republic of Indonesia Law on Disaster Management Number 24 of 2007 Article 1 Number 5, 2007).

In its implementation, governance is needed to make the management run well (Samudra et al., 2023b). The term governance is often translated as regulation or governance. However, in general, management, coaching, management, management, leadership, and so on have been interpreted by various parties in management. Even though these terms have different meanings. (Sutojo & Aldridge, 2005). There are five main functions of governance from the management aspect as (Sutojo & Aldridge, 2005), namely Planning, namely the process and series of activities to set goals in advance at a certain period/period as well as the stages/steps that must be taken to achieve these goals; Organizing, namely a process and series of activities in the division of labor planned to be completed by members of the work group, managing good work relations between them, and providing a conducive work environment and facilities; Direction, namely a series of activities that provide instructions or instructions from a superior to subordinates or to people who are organized in formal groups and for common goals; d) Motivating, namely a process and series of activities carried out by leaders in providing inspiration, enthusiasm, and enthusiasm for work and encouragement to subordinates to be able to carry out an activity that should be; and Controlling, namely a process and a series of activities to see to it that a job can be carried out in accordance with a predetermined plan and the stages that must be passed.

In addition, related to logistics distribution assistance, of course, refers to logistics management, as Regulation of the Head of the National Disaster Management Agency (BNPB) Number 20 of 2011 concerning Guidelines for Monitoring and Evaluation of Disaster Management Logistics Management explains that logistics management is the process of managing disaster management logistics which includes planning/inventory of needs, procurement and receipt, warehousing and storage, distribution, transportation, acceptance at destination and termination. As for the implementation of management functions in the implementation of logistics, it is very important (Subagya. 1990) to explain later that management functions are applied in organizing logistics.

Based on the Regulation of the Head of the National Disaster Management Agency (BNPB) Number 13 of 2008 concerning Guidelines for Disaster Management Logistics Management, disaster management logistics management can be defined into six categories of activities (stages) of logistical assistance which form an integral part of the supply chain.

The previous research was conducted by Pratama & Gunawan (2020) in an article entitled "Application of the First Fit Algorithm Method in the Distribution of Disaster Aid at the Regional Disaster Management Agency (BPBD) of Sukabumi City". This research is demanded by disasters whose frequency continues to increase every

year; thinking about disaster management must be understood and implemented by all parties. Logistical assistance is urgently needed when a disaster occurs. Logistical assistance support must be on time, location, target, quality, quantity, and as needed. One problem that arises when natural disasters occur is the need for coordination between donors and the Disaster Management Agency regarding the distribution of logistical assistance. Several donors from agencies or companies directly assisted victims at the disaster site.

In addition, Jamil & Said (2017) conducted research in the proceedings of the National Seminar and its Application entitled "Design of a Monitoring Information System for Disaster Aid Logistics Distribution (MBD) Based on the Codeigniter Framework". The researchers aim to build a monitoring information system for the distribution of disaster aid to improve the mechanism for distributing aid so that the mechanism for distributing logistical assistance to and from disaster locations can be better recorded in the system. The system was built using the Codeigneter framework with a database, namely MySQL. The researchers took this theme because it was motivated by natural disasters that are difficult to predict, and disaster management does the surrounding community also assist the task of government agencies. In disaster aid distribution, some principles are precise and precise, prioritizing, and coordination. However, in practice, this process takes time if data collection is done manually, so researchers will create an information system to collect data on disaster locations and what types of assistance are needed. The results of this study are that the information system for monitoring the distribution of disaster aid can function properly, which produces information in the form of types of disasters, requests for assistance, and approval of assistance (Jamil & Said, 2017).

3. Method

Qualitative research generally aims to process information about the main phenomena explored in research, participant research, and site research. The purpose of qualitative research can also state the chosen research design (Currie & Schwandt, 2015). Based on the main issues raised, the type of research used is qualitative, with a case study method on the governance of the distribution of logistical assistance to disaster survivors in South Sulawesi. Maintenance of informants was carried out purposively, namely carried out according to research needs. In determining the informants, the authors have taken steps to limit based on competence, knowledge, and experience. In addition to informants, the authors also interviewed participants involved in managing the distribution of logistical assistance to disaster survivors (Study on the Makassar flood disaster, South Sulawesi). The informants included elements of the Regional Government of Makassar City District, South Sulawesi, elements of agencies implementing the distribution of disaster logistical assistance such as the Regional Disaster Management Agency (BPBD), Social Services, Health Services, Transportation Services, Public Works Services, Non-Governmental Organizations and elements public. With the involvement of participants in this research, the information obtained can be balanced and more comprehensive. The substance of the data to be

examined includes how informants can provide input on managing the distribution of logistical assistance for disaster survivors (study on the Makassar flood disaster, South Sulawesi).

4. Result

Government Regulation Number 39 of 2012 concerning the Implementation of Social Welfare has been stipulated in disaster management, and Minister of Home Affairs Regulation Number 23 of 2013 concerning Guidelines for the Preparation, Control, and Evaluation of Regional Development Work Plans for 2014. It explains disaster victim management, including disaster preparedness with KSB, food assistance/side dishes during the emergency response period for disaster victims, and social assistance for victims of natural disasters and social disasters, Regulation of the Head of the National Disaster Management Agency (BNPB) Number 13 of 2008 concerning Guidelines for Logistics and Equipment Management so that logistics and equipment management can be carried out in a fast, precise, integrated and accountable manner, the 2015-2019 National Plan for Disaster Management, the Ministry of Social Affairs to receive assistance in meeting the basic needs of refugees and volunteers, Clusterization of Disaster Management in Indonesia, the Ministry of Social Affairs as the coordinator. Refugee and Protection Cluster and Logistics Cluster Deputy Coordinator.

In general, for each autonomous region, the local government should have formed a regional Search and Rescue (SAR) team that will help from time to time if an area experiences a disaster. Search and Rescue (SAR) in this area will save disaster victims, manage the distribution of natural disaster aid and look after them until the recovery period is complete. The classic problem that arises is the uneven distribution of assistance from donors. One of the advantages of food and materials is that they are suitable for use, while other areas still need to receive them. Very ironic, but these events are often repeated every time a disaster occurs. Often in handling post-disaster logistical distribution, some conditions are out of sync between the logistical needs of the victims and the existing logistical assistance. As a result, there needs to be more certain types of logistics and a shortage of other types of logistics. (Setyadi & Rachmatullah, 2014).

Government Regulation of the Republic of Indonesia Number 22 of 2008 concerning Funding and Management of Disaster Aid Article 28 paragraph (1) that assistance for meeting basic needs, as referred to in Article 24 paragraph (2) letter d, is given to disaster victims in the form of temporary shelter, food aid, clothing, clean water and sanitation, and health services. Disaster emergency assistance to meet the basic needs of disaster victims is given by considering the minimum basic needs standards and prioritizing vulnerable groups. In order for the provision of assistance to meet basic needs for disaster victims to be efficient and effective, it is necessary to compile a guideline that contains procedures for assisting in meeting basic needs for disaster victims that meet minimum standards so that it can be used as a reference by the government, local government, national community. And international, non-

governmental organizations, regional, national, and international (Mappaware et al., 2020).

The 2021 World Risk Report states that Indonesia is one of the countries with the highest disaster risk in the world. The report is based on a calculated index of hazard factor interaction (exposure) with three elements: susceptibility risk, coping capacity, and adaptive capacity (adaptive capacity). It is very ironic because, with the highest level of disaster risk, the worst score is found in the element of coping capacity. One indicator of buffering capacity is the Fragile State Index which is based on public services, where the government should be able to provide disaster management facilities and infrastructure evenly regardless of the socio-economic status of the disaster survivors. One form of irrational public service is assistance in disaster management in the form of necessities for disaster survivors. The effectiveness of the use of aid in an appropriate and timely manner reduces not only the socio-economic impact (wealth, physical security, social status) but also the psychological impact (trauma) for disaster survivors (Indonesia, 2012).

The governance of disaster logistics distribution in disaster management activities is an important matter that must be considered. However, it still raises problems in practice, including inconsistencies in disaster survivors' data and the suitability between stocks of goods for non-urgent needs while urgently needed goods experience shortages. Lack of professionalism and coordination among disaster logistics distribution implementers and a need to understand the importance of logistics itself (Patriatama, 2012). Another problem is the discrepancy in the logistics distribution process, as seen from the distribution of goods assistance mechanism, which is less focused, causing the distribution process to be slow and often not on target. This is mainly due to the response programs sometimes only in the emergency response program. Disaster management programs, both pre, and post, have received little attention from disaster service agencies. As a result, handling the impact of disasters will be more difficult and difficult in the process of physical rehabilitation and recovery of the disaster survivors themselves, especially in managing the distribution of disaster aid logistics. This is also the case with the recent Makassar, South Sulawesi flood disaster. The problem that has occurred is handling the impact of the flood disaster, both in terms of transportation and provision of evacuees, which still needs to be faster. In addition, in terms of the distribution of logistical assistance, especially medicines and the distribution of clothing, and food logistics, disaster survivors were slow to receive them. Another problem is the provision of alternative routes for the distribution of aid logistics which are felt to need to be optimally implemented, thus hampering the logistical assistance process. This is, of course, interesting to examine further in this article.

The natural phenomena that often occur in Indonesia are floods which often result in extensive losses to human life in terms of material, economic and environmental aspects. The causes of flooding occur due to static natural conditions such as geography, topography, and river channels. Dynamic natural events and rainfall in Indonesia, a tropical region, are relatively high, especially during the rainy season;

this condition raises the vulnerability to causing a flood hazard. Many other things cause flooding, such as silting of rivers and dynamic human activities.

It is impossible to manage disasters only incidentally, but it must still be carried out through optimal and effective management, even long before a disaster occurs. Likewise, the governance of the distribution of logistical assistance will only work well if it is supported by good and fast coordination of related organizations; disaster management will be chaotic and sluggish and will not be effective. A governance procedure must be prepared and established, especially during the pre-disaster or emergency response stages.

Local governments have their respective authorities in managing disaster management, including the management of logistical assistance; the National Disaster Management Agency (BNPB) has established guidelines and standards that need to be used as management guidelines by the local Regional Disaster Management Agency (BPBD). The priority function of the National Disaster Management Agency (BNPB) and the Regional Disaster Management Agency (BPBD) is to provide efficient and optimal management of the distribution of logistical assistance, especially in disaster emergency preparedness and response stages. Managing the distribution of logistical assistance is more than just the cost of procurement and assistance for disaster survivors. In practice, the governance of the distribution of logistical assistance for disaster survivors requires optimal and effective planning based on supply chain tracking and strengthened by close coordination with other agencies involved. Efficient management of the distribution of logistical assistance also needs to be assisted with supporting infrastructure to facilitate the distribution and performance evaluation process in the field.

4.1. Analysis

The author uses 7 (seven) management functions for the distribution of disaster logistical assistance as a benchmark in this study for survivors of the Makassar, South Sulawesi flood, where the seven functions include 1) Functions of planning and spending needs; 2) Budgeting Function; 3) Procurement Function; 4) Storage and Distribution Function; 5) Maintenance Function; 6) Write-Off Function, and 7) Control Function. These seven aspects can be discussed as follows:

Planning and Preparation of Needs Aspect

In this case, logistics governance functions as planning and determines each program organization's needs. This includes product analysis activities, priority scale, and availability (Grishchenko et al., 2016). This initial activity must always consider the budget, availability features, and ease of accessing an item. The research results on planning and procuring needs indicate that planning must still be better structured. Many aspects still need to be realized, including the absence of uniform standard procedures to optimize coordination between related lines. The distribution of disaster aid is often hampered due to planning that does not cover the entire aid supply chain, including planning activities, alternative planning, and assessment of accessibility.

In this regard, the Makassar City Government has not optimally carried out regional disasters with potential disasters, while the recent flood disaster has happened before. Related to regional planning that still has not considered disaster-prone areas to be converted so that loss of life and material can be minimized when a disaster occurs. In handling disaster management needs, they have not been on target because the conditions obtained in the field show that the needs are very lacking compared to those of a supporting nature (Iskandar et al., 2018). There is no patented requirement fee scheme yet so it can be met in advance according to the level of need.

Budgeting Aspect

Budgeting in logistics governance ensures that the procurement needs of goods are in accordance with the budget (Anca, 2019). If the logistics budget costs are inappropriate, changes must be made to the planning. The study results show that the slow distribution of logistical assistance is also due to the need for more local government budgets to meet the needs of the aid. The reality is more like waiting for donors and funds from the center. During yesterday's disaster, there was not even a public kitchen to fulfill food logistics due to a lack of budget. It is very unfortunate because the local government budget has been able to be realized as a fulfillment of disaster logistical assistance considering that this disaster did not just happen once. Suppose previous experience can be used as a lesson and reference material to procure a budget for disaster logistics. Determining the budget for meeting the needs for disaster logistical assistance has yet to be planned in a flexible, accountable, and equivalent manner to the budget for fulfilling development and empowerment, which is unfortunate because when a disaster occurs, much regional infrastructure has an impact.

Procurement Aspect

Logistics governance is more focused on procuring goods and is an important thing that must be considered. When there is a budget discrepancy, and it becomes difficult to change plans, the logistics management party must improvise in managing logistics activities with a limited budget (Large et al., 2013). In this case, the function of procurement is not solely on procuring goods but also on increasing the need for human resources. As an example of the recent flood disaster in Makassar, the delay in handling the disaster and the distribution of logistical assistance is not only a problem with the availability of relief goods but also a need for more competent human resources in handling the disaster. This is due to the need for more training and socialization within the local government to improve its human resources (Ramadhan et al., 2021). So that when a disaster occurs, they blame each other between one institution and another. Another problem is that information systems that can assist in implementing coordination mechanisms, including supply chain flows, still need to be developed where; most of the work still uses manual recording and verbal and written coordination. In this case, fulfilling supporting facilities and infrastructure still needs to be more effective.

Storage and Distribution Functions

The function of logistics management in storing and distributing is a process in which a product is obtained at the place where it should be (Kusrini et al., 2020). Later, the applicable SOP will distribute the goods to other interested parties. The reality on the ground found that the distribution of disaster logistical assistance could have been faster because the location for storing aid was very far from the point of the disaster. Apart from that, there needed to be more coordination with the Department of Transportation to provide alternative routes that did not use disasters to make the distribution of logistical assistance easier. Previous experience is that when a disaster occurs, especially in the planning stage, there are still very few alternative routes specifically needed for assistance; the planning focuses only on evacuation routes. When a disaster occurs, the provision of aid could be better regarding the availability of distribution channels (Mohd et al., 2018).

Maintenance Function

In this case, logistics management also includes all maintenance of goods. In general, logistics maintenance aims to ensure that stored goods do not deteriorate quickly (Arts et al., 2019). The study results show that most disaster logistical assistance is already in bad condition. For example, rice, fleas, or even rice are often broken and smelly. Likewise, instant noodles are often found in expired conditions.

Aspect of Deletion

In the process of logistics management activities, there are also cleaning activities. The deletion function is performed to dispose of damaged items, repair them, or replace them with the appropriate ones (Grabara et al., 2014). This has not been fully implemented by looking at the reality that there are still a lot of logistical aids circulating that are already in an unfit condition. The lack of budget also causes elections and repairs not to be carried out properly.

Aspects of Control

Logistics governance also functions as control, which will be carried out by a logistics leader in stages according to the various functions mentioned above (Lu et al., 2011). The goal is to ensure that all logistics functions can be carried out as expected. However, the current legal framework in Indonesia needs to mandate the development of coordination mechanisms and regular procedures. The lack of a legal mandate affects the implementation of a coordination mechanism that is carried out without standard procedures, or there is no permanent coordination mechanism for logistical assistance, so disaster activities, including logistical assistance, are carried out in a less efficient and less targeted manner. Besides that, there is a need for more resource cooperation



involving the community and the ineffective management of logistics donations from the community.

5. Conclusion

This article shows that the management of the distribution of logistical assistance to survivors of the Makassar, South Sulawesi flood disaster still needs to be more optimal and effective. In this case, there is no uniform standard procedure in coordination. Planning that lacks coverage of the entire supply chain of assistance, including planning activities, alternative planning, and assessment of accessibility. The response to disaster management needs has not been on target because the acquisition conditions in the field show that the needs are actually very lacking compared to the needs of a supporting nature. The lack of local government budget allocations is more waiting for donors and funds from the center. Lack of availability of relief goods also lack competent human resources. Information systems for coordination mechanisms and standard procedures, including supply chain flows, still needed to be developed, and most of the work still uses manual recording and verbal and written coordination. The fulfillment of supporting facilities and infrastructure still needs to be more effective. The storage location for aid is very far from the point of disaster. Lack of coordination of alternative provision of distribution channels for logistical assistance. Most of the disaster logistical assistance is already in an unfit condition. The lack of budget also causes elections and repairs not to be carried out properly. The lack of a legal mandate affects the implementation of the coordination mechanism, which is carried out without standard procedures, or there is no permanent coordination mechanism for logistical assistance, so disaster activities, including logistical assistance, are carried out in a less efficient and less targeted manner.

Author contribution statement

MS, AAS, AD, and AS are Senior joint authors, developing and designing research concepts: Conducting research, compiling and designing research; contributing data, materials, and analytical data; and writing the paper.

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Data availability statement

Data will be made available on request.

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