**Coping strategies of survivors for the 2014-16 Ebola Virus Disease epidemic and 2019-23 COVID pandemic who are resident in Victoria, Australia**

**ABSTRACT**

**Background:** The psychosocial impact of infectious diseases outbreaks such as the 2014-16 Ebola Virus Disease epidemic and the 2019-23 COVID-19 pandemic, and people’s survival required strict infection prevention and control interventions which disrupted their lifestyles, causing various forms of distress. Mitigating these effects required increased resilience, and positive coping strategies by impacted populations.

**Objective:**This study examines the coping strategies of survivors of the 2014-16 EVD epidemic and the 2019-23 COVID-19 pandemic residing in Victoria, Australia.

**Method:** A sequential exploratory mixed method utilised a nonrandomised method to recruit participants in this study. While the Brief Cope-28 was utilised for collection of data in the online survey, qualitative data was collected via online zoom interviews. A descriptive quantitative data analysis which used frequency, percentages and tables for the closed ended questions in the survey was utilised. Whilst the qualitative data followed the five stages of analysis. Results in Tables 2 and 3 will be reported according to their weighted average hierarchy.

**Result:** Fifty three percent of the 36 participants were women and most were within age-range was 18-40 years. Data which was provided for Tables 2 (N=32) and 3 (N=31) were presented according to the numerical strengths of the weighted averages. Table 2 shows that whilst 97% of the participants took action to make their lives better, those who strategised about what to do equally represented 97% and those who got emotional support were 94%. Comparatively, Table 3, shows that as all 100% of the participants took actions to cope with their stressors, 97% came up with strategies to improve their coping strategies and all 100% of them got help and advice. It implies that though a few embraced negative coping strategies, most of the participants coped positively.

**Conclusion:** The objective of this study was to determine the coping strategies of participants during the 2014-16 EVD epidemic and 2019-23 COVID-19 pandemic. Most of the participants took actions to improve how they will cope with their stressors during the 2014-16 EVD epidemic and strategised about what to do, during the 2019-23 COVID-19 pandemic, all of the participants took actions on what to do and they got help and advice. Whilst most of the participants coped positively a few found it difficult to cope with both episodes of disease outbreaks. More research is needed into Victorians coping strategies in the post 2014-16 EVD epidemic and 2019-23 COVID-19 periods.

 **Keywords:** Coping strategies, psychosocial, COVID-19, Resilience, Ebola Virus Disease

**INTRODUCTION**

Previously reviewed research articles in this study such as Jalloh et al., (2018) and Biddle et al.(2020) have revealed that events during the 2014-16 Ebola Virus Disease epidemic and the 2019-23 COVID-19 pandemic could be overwhelming (Abaatyo et al., 2024) and difficult for the survivors to cope with. This is especially so when changes to ways of life have to be made to control the spread of the disease. This experienced coping difficulty could arise from the morbidity and mortality which might arise from an uncontrolled sprawl of the disease among large populations. Coping strategies are described as the behaviours, thoughts, and emotions that are used to adjust to the changes that occur in one’s life (Semel insitute for Neuroscience 2022). As there might be many coping strategies, Zimmer‐Gembeck (2016) and team narrowed them down to two types, namely approach or active and evasive or disengagement coping strategies. In the former coping strategy, the individual confronts the problem and actively seeks solutions. This approach normally predicted to have positive results which include resolution of the problem. Alternatively, if the problem is unresolved, the affected individual lives positively and continue to find a credible solution to the problem. In the latter form of coping strategies, the individual does not actively seek support or resolution of the source of the stress, instead they attempt to evade the problem leaving it unsolved. Such actions are considered as unhealthful and does not actively promote recovery especially when changes to life activities which were made continue to negatively impact the lives of survivors (Zimmer‐Gembeck & Skinner, 2016).

During the 2014-16 EVD epidemic changes which included social distancing, isolation and community lockdowns were made to stem back the spread of the EVD. These changes negatively impacted the normal operations and functioning of communities and individuals. The dynamic changes to normal life and activities of daily living were due to various factors, such as restriction on intra and inter-community movements during the 2014-16 Ebola Virus Disease epidemic. These changes were potential sources of stress and anxiety for survivors. Managing stress and anxiety during the EVD epidemic depended on the affected individual’s resilience and coping strategies in the midst of numerous adversities. These adversities which included stigmatisation after recovering from EVD were sometimes very inimical to their mental health (Overholt et al., 2018; Schindell et al., 2024). Such actions hindered EVD survivors’ rapid recovery and social inclusion in the absence of an effective and supported coping strategy. The negative impacts of the closure of community activities and tight social restriction caused financial difficulty for survivors (Onyekuru et al., 2023). Furthermore, the suboptimal community and government support at the peak of the EVD epidemic severely undermined the individuals’ resilience to cope during the post 2014-16 EVD epidemic period including the 2019-23 COVID-19 pandemic period (Murray et al., 2021).

During the 2019-23 COVID-19 pandemic period, individuals had to cope with the rigours of infection prevention and control measures. Also the negative impacts of the actions that were introduced in an effort to control the spread of the disease especially among vulnerable people such as those who are living with other comorbidities negatively impacted their mental health (Rahman et al., 2022). Some of the actions taken to cope with the 2019-23 COVID-19 pandemic could have been described as active such as seeking help from friends, neighbours, family and other bodies which include nongovernment and government organisations. Other actions such as excessive alcohol and other substance intake undermined a positive outcome and sometimes caused affected individuals to involve in violent behaviors (Biddle et al., 2022). On the contrary, these findings demonstrate the importance of coping in distressed and anxious situations during disasters such as the 2019-23 COVID-19 pandemic, so as to prevent adverse mental health effects. Savitsky et al. (2020) agree with most of the authors above that enhanced coping can prevent more serious negative mental health impacts in disaster situations. In agreement, Prowse et al. (2021), noted in a study among students that using a positive focus coping strategy in a crisis is a reliable method of forestalling mental health problems. This is important because positive or health-focused coping strategies help people to navigate difficult situations that might increase their psychological distress levels.

While previous studies have explored coping mechanisms during infectious disease outbreaks, limited research has examined the experiences of West African survivors now residing in Australia.The implication of this finding is that other minority migrant communities who have faced similar adversities in their places of origin and are resettling in Australia will benefit from the knowledge provided in the study to enhance their coping strategies. To further explore this phenomenon, a suitable research objective and methodology are utilised.

**Broad objective**: To examine the coping strategies survivors of the 2014-16 EVD epidemic and 2019-23 COVID-19 pandemic resident in Victoria-Australia utilised during both events.

**Specific objectives:** The following objectives were utilised in assessing the broad objective by asking participants to:

* How much did participants use each of the strategies during the EVD epidemic in West Africa?
* How much are people using each of the following strategies during the 2019-23 COVID-19 pandemic?
* What strategies did you use to cope during that epidemic?
* What strategies are you using to cope with this pandemic?

**METHODS**

**Design:** Exploration of this public health and social phenomenon required a flexible and robust investigative method such as the mixed method research. Therefore, a sequential exploratory mixed methods research was utilised to investigate how people coped during both episodes of infectious disease outbreaks among West Africans who survived the 2014-16 EVD epidemic. The significance of this choice of study is that mixed method research provides rich data and mitigates the weaknesses of individual quantitative and qualitative research methods.

This is a sequential exploratory mixed methods study that comprised of an online survey and a zoom based semi-structured interviews. Participants were given the option of skipping any questions they were not comfortable with in the study. Responses to questions 1 and 2 in the survey questionnaire determined whether an individual would participate or not. Therefore, out of 68 participants who initially attempted the survey, 36 were automatically selected and out of this number, though ten volunteered, but nine participated in the semi-structured interviews. Participants in the semi-structured interviews were given three-digit code numbers to protect their identity. Analysis of the qualitative data was by the five stages of qualitative data analysis as indicated by Bingham, (2023) and Mandoh et al (2024). Further information will be provided in the study protocol (Mandoh et al., 2024).

**Inclusion criteria:** Individuals who met the inclusion criteria which included being 18 years and above, lived in West Africa during the 2014-16 EVD epidemic and resided in Victoria-Australia to participate in the study.

**Setting:** This study was done in Victoria – Australia.

**Data collection:** The online survey used the Brief-COPE-28 to collect quantitative data on coping strategies for both the 2014-16 EVD epidemic and the 2019-23 COVID-19 pandemic respectively. The Brief-COPE-28 is a shortened version of the COPE-60 that gathers data in 14 areas on the tool (Brambila-Tapia et al., 2023) and summaries of this measure in the Survey Monkey were reported in Tables 2 and 3 respectively. This tool is used to assess effective and ineffective coping strategies among those who experienced stressful events, such as hardship and other difficult situations. Further, the tool includes three areas such as problem-focused, emotion focused and avoidant coping , it is a tool with a global evidence-based significance with a high validity and internal consistency (Carver, 1997; Nunes et al., 2021).

The use of this tool was followed by zoom semi-structured interviews for more qualitative data which utilised the five stages of qualitative data analysis.

**Data analysis** The quantitative data was analysed by using a descriptive frequency method that utilised frequences, percentages, charts and figures to present data (Kotronoulas et al., 2023). Following interviews, data was electronically transcribed thorough a computed voice recognition transcription process. The transcribed data was further organised, tabularised and sorted. Phrases and words which were identified were put into themes and subthemes (Naeem et al., 2023). These steps enhanced the researchers’ understanding of the findings before they were interpreted and reported (Bingham, 2023). The two sets of results were presented and discussed separately. The quantitative aspect was presented first which was be followed by findings from the qualitative findings. Further details are as published in Mandoh et al., (2024). A summary of a combined questions is presented in Table 1.

**Table 1, Research questions utilised in this study**

|  |  |  |  |
| --- | --- | --- | --- |
| **Serial number** | **Design** | **Description** | **Research questions** |
| 1 | Quantitative | Survey question (Online Survey Monkey) | Please indicate how much you used each of the strategies during the EVD epidemic in West Africa |
| 2 | Quantitative | Survey question (Online Survey Monkey) | Please indicate how much you are using each of the following strategies during the 2019-23 COVID-19 pandemic |
| 3 | Qualitative | Interview question (on Zoom) | What strategies did you use to cope during that epidemic? |
| 4 | Qualitative | Interview question (on Zoom) | What strategies are you using to cope with this pandemic? |

The Table 1 comprises of 4 questions, that is two quantitative and two qualitative. The quantitative questions in Table 2 collected data for the coping strategies which were employed during the 2014-16 Ebola Virus Disease epidemic in West Africa and Table 3 for the 2019-23 COVID-19 pandemic in Australia respectively. The last two questions in the table are zoom online interviews which focused on the coping strategies that were utilised during the 2014-16 EVD epidemic and 2019-23 COVID-19 pandemic respectively.

**RESULTS**

This section presents results for both quantitative and qualitative components of the study. Quantitative results in Tables 2 and 3 will be reported in the sequence of the numerical strengths of the weighted averages of the questions. This will be followed by results from the qualitative component which will be supported with participants statements as stated earlier in the method section.

**Ebola Virus Disease epidemic**

**Please indicate how much you used each of the strategies during the 2014-16 EVD epidemic in West Africa:**

**Table 2: Responses on “…** *coping strategies during the 2014-16 EVD epidemic in West Africa”(N=32)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial** **number** | **Types of coping** | **Not at** **all** | **A bit** | **Sometimes** | **A lot** | **Weighted average** |
| 1 | I turned to work or other activities to take my mind off things. | 18.75% | 18.75% | 40.63% | 21.88% | 2.66 |
| 2 | I used alcohol or other drugs to make myself feel better or to try and forget. | 81.255% | 6.25% | 9.38% | 3.13% | 1.34 |
| 3 | I gave up trying to deal with it | 46.88% | 15.63% | 37.50% | 0.00% | 1.91 |
| 4 | I gave up trying to deal with it | 54.84% | 22.58% | 22.58% | 0.00% | 1.68 |
| 5 | I went and did something to think about it less (e.g. Going to movies, watching TV, reading, daydreaming, sleeping, or shopping). | 18.75% | 21.88 | 50.00% | 9.38% | 2.50 |
| 6 | I refused to believe that it happened to me. | 43.33% | 36.67% | 20.00% | 0.00% | 1.77 |
| 7 | I concentrated my efforts on doing something about thesituation I was in. | 12.50% | 12.50% | 59.38% | 15.63% | 2.78 |
| 8 | I got emotional support from others. | 6.45% | 19.35% | 61.29% | 12.90% | 2.81 |
| 9 | I took action to try to make the situation better. | 3.13% | 9.38% | 56.25% | 31.25% | 3.16 |
| 10 | I got help and advice from other people. | 6.25% | 31.25% | 50.00% | 12.50% | 2.69 |
| 11 | I tried to come up with a strategy about what to do. | 3.13% | 15.63% | 59.38% | 21.88% | 3.00 |
| 12 | I got comfort and understanding from someone. | 19.35% | 19.35% | 45.16% | 16.13% | 2.58 |

Table 2 shows that while majority attempted to distract themselves with work from their stressors, nearly all of the participants did something to think about their problems less. Most of the participants positively reframed their minds and therefore came up with strategies about what to do. Though majority of the participants did not utilise substances to cope, most of the participants got emotional help and support whilst concentrating their efforts on doing something about how they will cope during the 2014-16 EVD epidemic. However, as nearly 3/5th of the participants population lived in denial of what they were experiencing, nearly half of the participants population gave up coping during the 2014-16 EVD epidemic.

**COVID-19 pandemic**

**Please indicate how much you are using each of the following strategies during the 2019-23 COVID-19 pandemic:**

**Table 3: Responses on “…** *coping strategies during the 2019-23 COVID-19 epidemic in Australia”(N=31)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial** **number** | **Types of coping** | **Not at** **all** | **A bit** | **Sometimes** | **A lot** | **Weighted** **average** |
| 1 | I turn to work or other activities to take my mind off things | 12.90% | 6.45% | 48.39% | 32.26% | 3.00 |
| 2 | I use alcohol or other drugs to make myself feel better or to try to forget. | 83.87% | 9.68% | 6.45% | 0.00% | 1.23 |
| 3 | I have given up trying to deal with it. | 38.71% | 19.35% | 32.26% | 9.68% | 2.13 |
| 4 | I have given up attempting to cope. | 45.16% | 16.13% | 58.06% | 22.58% | 2.00 |
| 5 | I do something to think about it less (e.g. watching movies or TV, reading, daydreaming, sleeping). | 3.23% | 16.13% | 58.06% | 22.58% | 3.00 |
| 6 | refuse to believe that it is happening to me. | 35.48% | 22.58% | 41.94% | 0.00% | 2.06 |
| 7 | I concentrate my efforts on doing something about the situation I am in. | 6.45% | 19.35% | 41.94% | 32.26% | 3.00 |
| 8 | I get emotional support from others. | 6.67% | 26.67% | 36.67% | 30.00 | 2.90 |
| 9 | I take action to try to make the situation better. | 0.00 | 19.35% | 35.48% | 45.16% | 3.26 |
| 10 | I get help and advice from other people. | 0.00% | 19.35% | 58.06% | 22.58% | 3.03 |
| 11 | I try to come up with a strategy about what to do. | 3.33% | 10.00% | 60.00% | 26.67% | 3.10 |
| 12 | I get comfort and understanding from someone. | 6.67% | 33.33% | 43.33% | 16.67% | 2.70 |

Table 3 shows that whilst all of the participants took actions to make their situations better during the COVID-19 pandemic, as they got help and advice from others, they also strategised on what to do to help them further. Furthermore, they turned to work and did something to think about their problems less. Nevertheless, they concentrated their efforts on doing something about their situations. In comparison, questions numbers 9 and 11 in Tables 2 and 3 had the highest weighted averages among the others for the 2014-16 EVD epidemic and the 2019-23 COVID-19 periods. However, there was an equal score of 97% between the 2014-16 EVD epidemic and the 2019-23 COVID-19 periods for question 11 when most of the participants tried to come up with a strategy about what to do about their problems. As majority of the participants got help and advice from others during the 2014-16 EVD epidemic period, and all of them got help and advice from others during the COVID-19 period. Majority of the participants did something to think about their situations less, alternatively, nearly all of the participants did come up with a strategy to deal with their stressors during the 2019-23 COVID-19 period.

**Coping strategies during the 2014-16 EVD epidemic**

Findings include, singing, dancing and crying and praying. Also, loosing family members who were the main providers left a void in the hearts of grieving families which made them feel hopeless and find life challenging. The following participants described how difficult it was for them to cope during the epidemic especially when family members were dying.

*It was difficult coping even though I was employed. (Participant 61)*

The widespread illness and deaths of community members negatively impacted participants’ ability to cope. As one participant remarked:

*My family lost all hope, and my community [were] not able to cope with the number of deaths in the community. (Participant 63)*

They also maintained that mass media was vital for communities’ information dissemination and education during crises. For instance, participants listened and watched television for information about the EVD epidemic and followed government health advice:

*I stay home, watch television, go to work and spend time with family. (Participant 003)*

Intra and inter-community support helped a lot, and family networking and support were vital in coping with the epidemic. Participants said they prayed, sang and danced to cope with the EVD stress. A participant commented that:

*I relied on community support. (Participant 009)*

**Coping strategies during the 2019-23 COVID-19 pandemic**

Many participants stated that they complied with government public health regulations and embraced infection prevention and control measures. They avoided crowded places and shaking of hands, wore face masks, tested for COVID-19 when necessary, and stayed within travel limits. Some embarked on walking, running, dancing and offering prayers. A respondent took days off work and stayed home, not doing anything but relying on family support networks to cope. Similar to coping strategies for EVD, participants watched television and listened to the radio and used social media to cope with COVID-19.

*Sometimes I cry or sing and dance to cope with stress. (Participant 002)*

 *I sit with my children, and we watch television a discuss and sometime go to a nearby park for a walk. (Participant 008)*

*Since I am living alone in my house, I rely on telephone calls to my family and friends back in Africa and the lockdowns are affecting my business negatively. (Participant 009)*

**Discussion**

**Please indicate how much you used each of the strategies during the EVD epidemic in West Africa:**

**Observation:** The results show that most of the participants focused on using various methods of coping with the stressors of the 2014-16 EVD epidemic. Though a small proportion of participants used alcohol and other drugs, responses to the questions 9,11 and 8 which reported that participants took actions to make their situations better and tried to come up with strategies about what to do could be described as healthful or active coping.

**Inference on the findings:** Coping with the stressors of the 2104-16 EVD epidemic must have been a complex and difficult process. Despite this complexity, as the results indicate, majority of the participants might have considered seeking a plausible and permanent resolution to their problems, rather than avoiding them as a few did. This action of effectively seeking a resolution of the problem might have been as a result of building hope and trust in the future despite the high levels of distrust that might have been observed by researchers. The avoidance strategy might have been employed out of fear of the antisocial reactions such as rejection and stigmatisation from some families and communities.

**Supporting literature:** Embracing work especially at treatment centres and seeking membership in EVD survivor organisations could be a plausible way of reintegrating into EVD affected communities. Moreover, being productive after surviving the EVD could be an effective coping strategy. In line with this statement, James et al.(2019) noted that uptake of work and belonging to the EVD survivor family was an important coping and support strategy that was utilised by EVD survivors . Distrust of not only other people but also healthcare workers and governments was associated to inconsistencies in the EVD response by Murray et al.(2021). Moreover Overholt et al.(2018) observed that EVD survivors contributed to the treatment of EVD in Guinea-Conakry which might have helped in promoting acceptability. Furthermore, researchers Overholt et al.(2018) and Schindell et al. (2024) attributed stigmatisation of EVD survivors as the fear of EVD behaviors.

**Significance:** The significance of assessing coping strategies among 2014-16 EVD survivors and COVID-19 pandemic survivors is that findings could assist the survivor to determine their health behaviors in relation to their mental standings. Moreover, the reaffirmation of the utilisation of positive coping strategy could be empowering to the survivor in that it aids their adjustment and maintenance of a positive outlook to their mental health. Whereas, if the individual is not aware of the mental health benefits of the utilisation of an effective strategy of coping, it could militate against their mental health.The issue in focus is how the 2014-16 EVD survivors coped with the stressors during that event and the event. This research provides additional evidence-based data in furtherance to understanding the relevance of embracing coping strategies that would enhance the resilience and mental health of the survivors of the EVD.The knowledge gained could be utilised in promoting understanding of how positive coping strategies could mitigate the impact of severe large-scale disasters such as the 2014-16 EVD epidemic on the overall resilience and wellbeing of the survivors. Knowledge gained from this research could be adapted and applied to training people about the benefits of positive coping. Healthcare delivery could be a complex and stressful work, but knowledge of the benefits of the utilisation of positive coping strategies such as relaxation and good sleep could be refreshing.

**Please indicate how much you are using each of the following strategies during the COVID-19 pandemic**

**Observations:** Although Table 3, highlighted that a plethora of coping strategies were utilised by participants during the 2019-23 COVID-19 pandemic, outstanding was their responses to questions in a descending order, 11,10,9, 7, 5, 1. Their responses indicate nearly all of the participants took action to make their situations better, got help and advice from other people which were 100% meaning that everybody took the same actions, followed by those who tried to strategies how to come up with what to do and those who concentrated their efforts in doing something about their situations. This turnout of active coping behaviors was higher during the 2019-23 COVID-19 pandemic than during the 2014-16 EVD epidemic.

**Inference on the findings:** While others might have been aware of positive way of coping during the 2019-23 COVID-19 pandemic, they might have just been overwhelmed by the scale of the disease outbreak and its impacts on their mental health and life in general, that caused them to take to alcohol, experience distorted their sleeping routines and feeling lonely. However, almost all of the participants coped effectively during the 2019-23 COVID-19 pandemic because of their trust in the Australian government.

**Supporting literature:** In congruence with the finding of this study, Biddle, Edwards, Gray & Sollis (2020) reported that despite the socioeconomic hardship which was experienced by Australians, they trusted their government to end the 2019-23 COVID-19 pandemic.

A few however, admitted to using alcohol and other drugs to cope with their pandemic related stressors. Similarly, Brooks et al. (2020) maintained that quarantine and isolation pressures increased individuals’ stress levels and frustration hence, they turned to drug use. Moreover, Stanton et al. (2020).Moreover, Butterworth et al. (2022) associated a varying degrees of impacts on different sets of people but went further to maintain that Victoria recorded the lowest level of mental health in the country. Stanton et al.(2020) observed increased alcohol consumption in a small population

**Significance:** The significance of embracing a health focused or positive coping strategy seemed to have had a positive multiplier effect, in that it could be a buffer for the maintenance of good mental health and overall wellbeing thus preventing further health deterioration. Moreover, adoption of positive or health focused coping strategy could avert other negative indicators on the health determinants in vulnerable situations. In the aftermath of a negatively impactful event, the mental and overall health outcome largely depends on how the individual can make positive changes that enhance coping. Therefore, irrespective of the coping strategy adopted, it is the short- and long-term outcomes that determine whether it was good or not for the individual based on the health outcomes presented later.Knowledge of positive or healthy coping strategies could be useful especially in the management of survivors of disasters such as the 2019-23 COVID-19 pandemic and cohorts who have endured other forms of disastrous events. Knowledge of positive or health-focused coping strategies could be utilised in training and mentorship of other workers. Health caring is stressful especially in situations in which workers are faced with a variety of challenging situation such as workplace violence, mental stress, risk of being infected and taking it home to your family and close associates. A skill in positive coping could enhance resilience and promote better health outcomes for both patients, communities and healthcare professionals.

**Coping strategies during the2014-16 EVD epidemic**

**Observation:**Observations from participants include felling the impact of losing family and found it difficult to cope. Moreover, the findings showed that widespread community illnesses and deaths were difficult to cope with. They also maintained that mass media helped a lot, and family networking and support were vital in coping with the epidemic.

**Inference on the findings:** Coping with the death of a family member could always be a difficult thing to contend with but what is unknown is that, could it be that the coping became more impactful because the loss of the providers for the family especially when households were riddled with the impact of poverty and hardship. Despite the lack of an optimal government support role of family supports could have greatly enhanced coping because it provided an immediate platform for survivor integration. Mass media communication can be caught in controversial situations of spreading mis information and confussion, but its role in infection prevention and control could be significantly impactful in both negative and positive ways**.**

**Supporting literature:** Rabelo et al. (2016) noted that the 2014-16 EVD survivors narrated how they sang and prayed to cope with the distressing experiences which they had. On the other hand Mayrhuber et al.(2017) confirmed that mass played a prominent role in disseminating positive messages about EVD survivors in Liberia. Murray.et al (2021) however observed in their study among the Calaba town residents in Freetown Sierra Leone that the death of family members who provided supports for was significant challenge to cope with especially support was lacking. Even the attitudes of some family members were brought into question by Murray and team.

**Significance:** As the 2014-16 EVD epidemic is widely reported to have caused widespread death and socioeconomic devastation, so it causes the largest survivor population. So, investigating and understanding how this cohort coped could raise awareness about what was done to raise the resilience of the 014-16 EVD survivors.How individuals coped during and after the 2014-16 EVD epidemic. This study has given an insight into how West Africans who survived prior traumatic events including the 2014-16 EVD epidemic coped.As Australia is a multicultural country knowledge about the coping strategies of a subset of the of the population could be useful in learning about other similar groups perspectives of coping with events during and after a disaster.Findings could be useful in designing further studies and generating hypothesis**.**

**Coping strategies during the 2019-23 COVID-19 pandemic**

**Observation:** Relied on mass media for information about government’s public health regulations and embraced infection prevention and control measures. Some embarked on walking, running, dancing and offering prayers, relied on mass media Some relied on mass media for information.

**Inference on the findings:** Mass media could have played an important role in information dissemination and assessing health promoting attitudes that were supportive of the Australian government’s infection prevention and control measures that were in force. Moreover, despite the fact the walking range was limited under the lockdowns, it must have positively enhanced coping, resilience and promoted heath especially when the stay-at-home orders were in place during community lockdowns.

**Supporting literature:** Shaban et al.,(2020) reported that many Victorian-Australians got information about the 2019-23 COVID-19 pandemic through mass media (radio). Moreover, Botha et al.(2023) observed that there was increased levels of resilience during a major event such as the 2019-23 COVID-19 pandemic. Biddle et al. (2020) asserted that there was increased confidence in the Australian government and therefore people embraced the infection prevention and control measures.

**Significance:** Mass media played a significant role in containing the pandemic because it can reach a large number of people at the same time and therefore trigger a health enhancing behaviors. Measures taken to control the 2019-23 COVID-19 pandemic seem to have achieved its objective of controlling the infection rate, their side effects negatively affected the lives of people leading to difficulty in coping thus leading to reports some mental health complications.How West Africans residing in Australia coped during the 2014-16 EVD epidemic and the 2019-23 COVID-19 pandemic.As there are many ways to cope with disasters, knowledge about active /positive coping versus inactive or negative coping strategies might depend on what worked in abating the effects of the stressor during either events.For individuals to be able to effectively cope with disasters on the magnitude of the 2019-23 COVID-19 pandemic evidence-based knowledge such as this piece of work should be adapted to building resilience and coping among survivors.It reinforces the knowledge of what might be perceived as either positive or negative coping strategies depending on the potential outcomes.

**Limitations:** Though this a mixed methods research that may have neutralised some of the study biases, this study acknowledges that participants were purposively selected which can lead to selection bias. Moreover, as qualitative methods of investigations provide rich data that take into account participants nuanced expressions, interviews are recounted experiences from participants memory which can affect the correctness of the data provided and therefore a recall bias may occur.

**CONCLUSION**

Comparatively, there are slight variations in the results of how West African 2014-16 EVD survivors

coped during the epidemic and during the 2019-23 COVID-19 pandemic. The Weighted average showed

a higher proportion of this cohort embraced active coping during the 2019-23 COVID-19 pandemic than

during the 2014-16 EVD epidemic in West Africa. For instance, all of the participants took actions

make their situations better and also, they got help and advice from people. However more research

be required to investigate Victorians coping strategies in the post 2014-16 and post 2019 -23 COVID-

periods.

**CONSENT**: Consent was given in writing before the study commenced.

**ETHICAL APPROVAL**: Approval given by the Charles Sturt University, New South Wales, Australia (Approval number H20325).

**Disclaimer (Artificial intelligence)**

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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