

## **Psychosocial Impact of COVID-19 and Ebola Virus Disease Outbreaks on Australian-based West Africans: A Narrative Systematic Review**

### **ABSTRACT**

**Introduction:** The COVID-19 pandemic resulted in widespread infection control and prevention interventions. These interventions did not only disrupt normal life activities but caused emotional and psychosocial pain, which lead to anxiety, fear of infection, stress, and distress, among others.

**Methods:** This followed the narrative approach of traditional literature review method. Two systematic reviews had been done using the PRISMA-ScR design. In this narrative, a summary of the findings from the two systematic reviews of literature are provided.

**Result:** The literature review identified an array of psychosocial health problems, which includes stress, fear, anxiety, and depression. This review indicates the paucity of information of the phenomenon interest.

**Conclusion:** Infectious diseases outbreaks such as the 2014-16 West African EVD epidemic and the recently concluded COVID-19 pandemic have resulted to widespread negative psychosocial pain.

**Keywords:** Psychosocial impacts, anxiety, EVD, COVID-19.

## **1. INTRODUCTION**

### **1.1: Overview**

The systematic literature review on the psychosocial impacts of the EVD epidemic and the COVID-19 pandemic have been presented in two parts. Part 1 focused on reviewing research conducted on the psychosocial impacts of the West African 2014–16 Ebola virus disease (EVD) epidemic on survivors. Part 2 focused on the COVID-19 pandemic and critically reviewed research on the psychosocial impacts of the pandemic on people.

The two reviews show a lack of literature specifically on West African people who survived the 2014–16 EVD epidemic in West Africa and experienced the COVID-19 pandemic in Australia. One of the objectives of this third part is to bring the two parts as components of one project and provide a narrative summary to the comprehensive review.

### **1.2: Nature of two outbreaks**

**EVD:** The Ebolavirus Disease henceforth the EVD is an infectious zoonotic disease that was identified in the then Zaire now the Democratic Republic of Congo. It is caused by a family of filoviridae genus of filoviruses “*Ebolavirus* (Bundibugyo virus (BDBV), Ebola virus (EBOV), Reston virus (RESTV), Sudan virus (SUDV) and Tai Forest virus”. Another strain of the Ebola virus the Bombali virus was added to the list in 2018 in Sierra Leone. The incubation period is 2-21 days [1, 2]. The disease is transmitted via direct contact and the initial clinical manifestations mimic many other infectious diseases in Africa such as Malaria [3].

The symptoms include high fever, malaise, headache and muscle pains which are also present in other infectious diseases such as Malaria. As the disease progresses additional symptoms manifest such as diarrhoea, organ failure and sometimes bleeding. Its fatality rate has been levelled at 51% and the fruit bat is considered to be the host of the virus [3]. The risk of

Ebola transmission can be minimised by social isolation, distancing and no physical contacts. The EVD ends with a myriad of health conditions known as the post EVD syndrome.

**COVID-19:** The viral infection that led to an outbreak in Wuhan province in China. that is a member of the Beta coronavirus that has mutated into alpha, beta, gamma, delta and omicron and the sub variants [4]. It is largely airborne. The causative organism is the Corona virus. Symptoms which can sometimes be delayed include, body and muscle pain, fatigue, nausea and abdominal pains [5, 6],

Mode of transmission include close contacts and can also be prevented by social distancing, community lockdowns. Unlike the time of the 2014-16 EVD outbreak when the EVD did not have any standardised treatment, the COVID-19 has an array of vaccines for preventing a full-blown debilitating physical or psychosocial conditions such as PTSD, fear, anxiety and depression.

**PTSD, fear stress, fear, anxiety, and depression:** Post Trauma Stress Disorder- is widely associated with exposure to traumatic experiences such as risking infection with an infectious disease such as the EVD and the COVID-19. Evidently, there are reports of increased level of PTSD among people during the COVID-19 pandemic [7]. Similarly, fear emanates from events that cause either stress or life threatening situations such as witnessing the infection and deaths of friends and relatives from the EVD or COVID-19[ 8]. Anxiety is described as an emotional experience that causes tension within an individual and it is also accompanied by fear and stress over the occurrence of an event such as the fear of COVID-19 infection and illness [9].

Anxiety and depression are related to each other. Depression is a mental health condition that seems to alter the way an individual feels and thinks about him or herself and about his or her surroundings. It affects the person's mood and emotions, and it is characterised by sadness, withdrawal and emotional instability[10]. All of the aforementioned conditions are closely related to each other.

### **1.3: Objective and Outlay**

This narrative review gives cognizance to the SANRA process [11]. The rationale of this narrative summary is the two separate systematic reviews, which were based on the standard

protocol for systematic reviews and as published [12]. Hence, summary of findings reported in parts 1 and 2 are presented in Tables 1 and 2, respectively.

## 2. SUMMARY OF FINDINGS

### 2.1: Summarised Findings from the Systematic Literature Review on EVD

Table 1: Findings based on specific research questions on EVD.

Questions	Responses
Did past trauma history in anyway positively impact the health behaviours of EVD survivors during the EVD epidemic?	Though two-third of articles evaluated psychosocial impacts among EVD survivors, less than a third discussed trauma. The articles did not report on the positive indicators of past traumatic events on survivors in the reviewed studies.
Did social support for EVD survivors effectively enhance coping?	The reviewed articles did not examine the extent of survivors' coping strategies during the epidemic, it was difficult to determine the extent of the psychosocial impact of the outbreak among survivors.
Did memory of events positively impact the behaviours of EVD survivors in the reviewed articles?	None of the reviewed articles reported on how EVD survivors recall of past disasters and how they could have either positively or negatively impacted their responses to the EVD epidemic.
What was the impact of the EVD experience on the behaviors of EVD survivors?	There are wide reports of fear, nightmares, and distrust among survivors.
What effects or influence on life satisfaction or well-being post-EVD did the articles address?	While some studies assessed the physical or psychosocial health complications after the EVD epidemic, less than one-third of the articles addressed life satisfaction among survivors during the same period, while slightly over one-third assessed EVD survivors' memories of the past events.
Did satisfaction with life overall improve coping during an epidemic such as the EVD in West Africa?	As indicated above, none of the articles addressed how life satisfaction could have improved coping during and after the EVD epidemic.
Did the studies report on psychosocial distress.	About two third thirds of the reviewed articles explained the scale of psychosocial distress among EVD survivors.

Reviewed data showed in table 1 that less than one third of the studies covered past trauma experiences. Thus, the following articles reported on varying levels of trauma which

impacted the lives of EVD survivors. Trauma is a product of life-threatening events, which can have a long-lasting emotional impact on individuals [13]. Some of the drivers of psychosocial trauma reported were witnessing the death of loved ones, family separation and emotional challenges, disrupted social lives including closure of schools culminating to symptoms of anxiety, depression, flashbacks and Post Trauma Stress Disorder that were reported in the review.

Slightly above one third of the reviewed articles reported that support was granted by foreign bodies, neighbours, family, and friends and not from government. Social supports include acceptance of survivors into their family and community, provision of essential services, which includes healthcare, and financial to aid social integration and improvement in mental health.

Slightly below one third of the reviewed articles reported (Table 1), that their participants had a mixed (negative and positive) memory of events. Reviewed studies described an array of negative psychosocial feelings that emanated from their past experiences with the EVD infection prevention and control venture which they undertook in Liberia. These findings included examples of psychosocial and physical encounters with health.

The reviewed studies further showed both positive and negative influences of surviving the EVD epidemic. Less than a quarter of the reviewed articles indicated how survivors' lives were influenced by the EVD epidemic. Equally, far less than a quarter of the reviewed articles reported how EVD survivors coped during the EVD epidemic, and the available information was limited. However, the finding further revealed that people utilised mixed strategies, which could be described as positive and negative coping strategies. The articles noted that most of the people coped well by utilising a combination of positive strategies such as doing something about their problems and utilising family supports. The negative strategies, which were practised by a few include indulgence in excessive alcohol consumption, other drugs use and self-stigmatisation.

About two third of the articles touched on psychological distress of EVD survivors. These findings indicated high levels of psychological distress among EVD survivors especially during the epidemic. The term psychosocial distress refers to a spectrum of symptoms that are indicative of more serious mental health problems. This review notes high levels of psychosocial distress among EVD survivors in the various studies. Though the cohorts and

the areas of study may be different, the commonly reported symptoms include anxiety, depression, fear, anger, avoidance, sleep disturbance and PTSD.

Less than a quarter of the studies reviewed dealt with life satisfaction. An assessment of life satisfaction gives an insight into the health status of a community, but none of the reviewed studies specifically assessed life satisfaction of EVD survivors. However, nuanced understanding of the contents of some of these reviewed articles suggested that life satisfaction among EVD survivors was at the lowest level during the epidemic in West Africa. Another objective of this literature review is to explore, synthesise and critically review literature regarding the phenomenon of interest of this paper which is the psychosocial impacts of COVID-19 pandemic on Australia based West Africans who survived the 2014-2016 Ebola epidemic. Though two-third of articles evaluated psychosocial impacts among EVD survivors, less than a third discussed trauma.

The reviewed articles did not examine the extent of survivors' coping strategies during the epidemic, it was difficult to determine the extent of the coping among EVD survivors. While some studies assessed the physical or psychosocial health complications after the EVD epidemic during the post-EVD period, less than one-third of the articles addressed life satisfaction among survivors during the same period, while slightly over one-third assessed' EVD survivors' memories of the past events. As indicated, none of the articles addressed how life satisfaction could have improved coping during and after the EVD epidemic. The table 2 is a graphical presentation of the thematic discussion section of this review.

This section is discussed under seven major categories which are as outlined in Table 2. The first part dealt with the previous level of trauma which West Africans endured especially during the EVD epidemic. Second, is on social support, third, is strongest memory of events which occurred during the EVD epidemic, fourth, is the influence of surviving the EVD epidemic. A few focused-on coping strategies that were employed during the epidemic. And the sixth and final sections, dwelled on the current levels of psychosocial distress and EVD survivors perceived satisfaction with life overall.

## **2.2: Summarised Findings from the Systematic Literature Review on EVD**

Table 2: Findings based on specific research questions on COVID-19.

Questions	Responses
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Did the identified studies articles highlight any symptoms of trauma among Victorians? How did the previous history of trauma impact their health behaviors?	Far less than a quarter of studies mentioned past traumatic events in their studies. No indication is given about positive health behavior change arising from previous experiences of trauma.
Did social support positively impact coping?	Though social support was provided by government, friends and family, no mention was made about its impacts on the behaviors of Victorian - Australians
What impact did the memory of events have on Australians?	Reviewed articles revealed uneasiness, fear, anxiety and depression when they recalled past events.
What was the influence of the COVID-19 pandemic on Australians behaviors/	Studies indicated that despite their fears, they trusted their government and observed the public health intervention measures.
Did any of the studies address life satisfaction during the pandemic/	A few studies indeed reported that though life satisfaction among Australians was above average, it was still below pre COVID-19 pandemic levels.
How was coping reported during the pandemic	About a quarter of the articles reported a mixed reaction to coping. That is while some embraced positive coping styles others did not.
What was the reported level of psychosocial distress among Australians?	Over four fifth of the studies reported how distressed Australians were.

A small number of studies in Table 2, focused on trauma among Australians. The review's findings include exhibition of symptoms such as anxiety, feeling of isolation and PTSD, which may have emanated from past experiences. According to the Diagnostic and Statistical Manual of Mental Disorders [DSM-5][14], a description of trauma is qualified by a prior exposure to a life-threatening event that could be related to the experienced trauma. Therefore, disasters on the scale of the COVID-19 pandemic and other previous life-threatening events can traumatise a large number of people who might require social supports.

Nearly two thirds of the reviewed studies, reflected on the significance of social support after encountering a disaster such as the COVID-19 pandemic. These studies showed that though Australians received social support from individuals, families, organisations, and the government, they still recalled the difficulty which they encountered as a result of lockdowns.

A number of articles reported on strongest memory of the COVID-19 pandemic, which in this case did not reflect well in the reviewed literature. Only one study touched on the memory of events during the COVID-19 pandemic. However, the impact of the hard lockdowns in

Victoria reflected in that study significantly. These lockdowns resulted to feelings of disrupted family situations, feeling trapped and isolated, feelings of hopelessness, financial difficulties which influenced unpleasant experiences of the past.

This review indicates that less than a quarter of studies reported the influence of past events during the pandemic. These studies further identified symptoms, which can be categorised as, physical, psychological, and socioeconomic. Whilst the physical health impacts include those that can be collectively described as the long COVID, another aspect of the physical health challenge was the impact of COVID-19 on underlying chronic health conditions affecting Australians. The aspect focusing on the psychosocial health deals with mental health issues that were influenced by the COVID-19 pandemic. The socioeconomic impact which arose out of the lockdowns, problems with jobs, finance and housing required effective and positive coping to achieve.

About one quarter of the reviewed articles, focused on how Australians coped with the COVID-19 pandemic. The findings were that coping strategies employed by individuals were mixed.

Moreover, more than two thirds of reviewed articles focused on the levels of psychological distress which people experienced. The review identified high levels of psychological distress among Australians in all the studies but one. Psychological distress was broadly associated with work pressure, traumatic experiences such as witnessing many traumatic and distressing events which negatively affected their quality of life. Less than a quarter of the reviewed studies, reported on how satisfied Australians were with life. Despite the above average level of satisfaction reported by some, literature suggests that Australians are less satisfied with life during the pandemic than it was before the outbreak.

### **3. DISCUSSION**

#### **3.1: Findings**

Part 1: Review of literature regarding the EVD epidemic, shows that West African are traumatised by their experiences. Despite the time lapse since the resolution of the epidemic, the scale of this post epidemic trauma is yet to be fully understood. This could be partly associated with the scarcity of mental health care professionals to identify early and late indicators of a psychological health issue.

Part 2: Previous studies about the psychosocial impacts of COVID-19 in Australia have focused only on Australians in general and not on sub-sociocultural groups such as West Africans, and especially those who had experienced the 2014–16 EVD epidemic and other traumas. This limitation on the scope of earlier studies is undoubtedly the reason for the paucity of information on the subject. It is demonstrated in the literature that continuous trauma can have mental health ramifications long after the event [15].

### **3.2: Inference of the findings being reported**

These findings indicate that both episodes of disease outbreaks inflicted physical and psychosocial challenges, which have persisted up to the time of this review. Does the persistence of symptoms of trauma as a result of other past encounters with other life-threatening events or it was mainly due to the EVD epidemic and now the COVID-19 pandemic?

Furthermore, despite the fact that people did not receive social support especially from governments in West Africa, it was the opposite in Australia. Indeed, the Australian government provided financial supports and made professional mental health treatments accessible and free.

Regarding life satisfaction, though literature did not reflect much in West Africa, but nuances indicate that life satisfaction was low. Comparatively, though life satisfaction in Australia was reportedly high, it was lower compared to the pre COVID-19 era.

### **3.3: Supporting and/or controversial literature**

Part1: Some reviews assessed the impacts of the EVD outbreak on individuals infected by the EVD [16, 17]; those not infected but affected by the experiences during the epidemic were not addressed. The impacts of the EVD outbreak and the COVID-19 on this cohorts' (the West African EVD epidemic's survivors now living in Victoria, Australia) mental health and

well-being have not been much given attention [18]. Similarly, Biddle et al. [19] observed high levels of trauma and psychological distress among Australians but not on West Africans who survived EVD epidemic, indicating gaps in the literature on this topic hence, this study will address these gaps identified by these researchers.

### **3.4: Significance of findings**

The two literature reviews have provided an evidence-based background on factors relating to the phenomenon of interest, that is, the psychosocial impact of the COVID-19 pandemic on Australia-based West Africans who survived the 2014–16 EVD epidemic. Considering that this study which focuses on the psychosocial impacts of a pandemic (COVID-19), the research strategy and literature reviews have been explored in two parts. Following analysis of selected studies, the findings show gaps in the literature thus, provides the rationale for this research project's focus.

Part 1: The reviewed studies have highlighted the ensuing physical and psychosocial trauma of the EVD on the lives of EVD survivors. Studies during COVID-19 pandemic associate psychosocial distress in individuals with social isolation, quarantining, and experience of job losses.

However, the impacts of these events have not been demonstrated in specific studies on migrant communities such as West Africans residing in Australia who were impacted by other traumatic events such as the EVD epidemic and wars. Therefore, an investigation of the problems is required to address this limited evidence and provide a better understanding of the impact of COVID-19 pandemic on the African migrant population. The necessary in-depth understanding of the psychosocial impact of this pandemic can benefit similar groups in Australia. The significance is that there is a glaring absence of literature on this research topic, and findings will bring to the fore the post-COVID-19 outbreak impact on the mental

health and psychological well-being of West Africans, who survived the 2014–16 EVD epidemic now living in Australia.

## **CONCLUSION**

This research explored the literature on the psychosocial health and well-being experiences of those impacted by traumatic events, including infectious disease outbreaks such as Ebola and COVID-19. The findings provide new perspectives for improved responses to survivors in the event of a reoccurrence of an infectious disease outbreak. It also assists in advocating for improved follow-up of survivors and ongoing care of short-term and long-term psychosocial effects on West African survivors.

## **LIMITATION**

Considering the previous sub-sections and the significance of this literature search, there were limitations regarding the quality of most of the articles assessed. Though most addressed psychosocial health problems affecting participants, some articles had methodological problems, including not being peer reviewed, non-utilisation of randomisation, recruitment of participants and heterogeneity of sample populations. Comparability of the magnitude of psychosocial impacts among participants was challenging because participants were assessed with different measures.

Furthermore, controlled studies could not be accessed for evidence-based comparisons, and methodologically valuable articles related to the study's focus were scarce. Although studies about the COVID-19 pandemic were carried out in Australia and within similar time frames, they focused on an array of mental health problems among Australians in general, and none reported specifically on the impacts of the pandemic on Australia-based West Africans. Notwithstanding these limitations, this literature search has demonstrated the prevalence of

health challenges among Australians, although not specifically among West African EVD survivors in Australia.

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