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The results are concur with the results from the interview conducted in Ethiopia on 830 participants to report on factors associated with the development of PTSD among the survivors of Koshe landslide which highlighted that demographic factors played a big role in the development of PTSD whereby being female, family separation, serious physical trauma, drug addiction background, familial history of depression, negative affect and perceived higher tension were found to be among the factors associated with PTSD (Asnakew *et al.*, 2019). The results are quite different from the one found in the DRC whereby conflicts were reported to be main factors behind the development of PTSD which indicated that among people prone to disasters where regions without conflicts reported a lower prevalence of 8% compared to regions in conflicts 30% (Id et al., 2020).

Another study by (Munyandamutsa et al., 2012) revealed that having to live in severe poverty, witnessing the assassination of a family member in 1994, being divorced or wedded, missing both family and residing in the South Province in between ages of 25 and 34. Depression and alcohol dependency were most common in participants who met the diagnostic criteria for PTSD than respondents without PTSD in the same study population (Munyandamutsa *et al.*, 2012).

It was emphasized that lack of social support its self is a risk which might lead to a predictor to develop PTSD among people affected by the stressful event(Guay et al., 2006)

### **Health related factors**

The results indicated that factors associated with whether participants have had experience of death of one of the family members, and displacement from where they live had an impact on whether people develop PTSD or not [  $P \leq 0.05$ ]. These results concur with prior scholarship at the global scale that factors ranging from the death of someone close to the victim, severe injury or forced relocation from home, and pre-existing vulnerabilities are factors influencing onset of PTSD among people affected by natural disasters (Bromet et al., 2017).

No attempts done to discuss the results on incidence of chronic Post-Traumatic Stress Disorders because the results did not confirm it.

### **Psychosocial support services provided to communities post severe flooding and landslides**

The results in the present study showed that people affected by flooding and landslides did not get enough support as needed in due time where almost all highlighted support was not given as reported by the majority of the study participants. 14 % of the participants scored that they did not receive support at all. Government support was the main source of support (62%) while NGO was the least to provide support (2%). Only 24% get counselling services among other services. It is very crucial to get support after a traumatic event. It is important to know what are the types of social support people for people affected by natural disasters depending on their causes. The results from bivariate analysis between social support received and incidence of PTSD showed that support from the nearest health center was associated with the development of PTSD ( $P=0.005$ ) government support ( $P=0.001$ ). Other social support are not associated with the development of PTSD.

Lack of social enough support is likely to be a factor to develop PTSD among people affected by stressful event, therefore, it is important to know what are the types of social support people affected are in need so that they are helped not to permanently live with the condition.

The results of the present study have shown that the support provided was not as enough as it was required considering the scholarship that, people affected by natural disasters get support from government's entities, non-governmental organizations, family members, friends, colleagues to recover, but their effects on relationship with others and welfare remains extensive and sustained for long period for affected people, especially on psychosocial and mental health aspects that cause trauma(Stanke et al., 2012). In relation to the reported literature, the support provided to people affected by disasters in other settings get social support emotional, practical, affective, instrumental governmental and non-governmental spouse support, appraisal support, belongingness support, availability of help or support from others to fulfill specific needs (e.g. love, advice about a crisis (Guay et al., 2006). In addition, mental health psychosocial support provided to people affect by the disasters range from provision of cognitive-behavioral therapy, narrative exposure therapy, psychotherapy, and psycho-education(Bangpan, Felix, & Dickson, 2019). The present study did not attempt to deepen and explore support given to people affected by the natural disasters. It is of a need to conduct a separate study taking into account the support provided in this area.

## **Conclusion**

The incidence of PTSD reported in the present study is high as a significant percentage of 108(52%) out of 209 participants reported the symptoms of PTSD while only 101(48%) did not report any symptom of PTSD.

The reported main factors associated with the development of PTSD are gender, education level, family income, ubudehe category, and destruction of the property. Health related factors are directly associated with the development of PTSD such as health problem to them or to the family flooding caused death problem to you directly or to your family member and family displacement, therefore the following recommendations can guide to shift from the current

situation. To have a family income was a protector to develop PTSD while those who fall under category 2 were more likely to develop PTSD.

### **AUTHORS CONTRIBUTION**

C.N.: Conceptualized the research idea, contributed to the methods, and collected the data and its analysis as well as manuscript writing.

J. D. I: Supervised the work from research idea conceptualization, data management as well as manuscript writing.

J. K. K.: Supervised the work from research idea conceptualization, data management as well as manuscript writing.

### **ACKNOWLEDGEMENTS**

Special thanks goes to the whole supervisory team from Mount Kenya University, the family for moral and financial support to enable completion of all activities on time from inception to the final manuscript. The vote of thanks also goes to the participants from Nyarugenge district who provided their responses by completing the questionnaires.

### **CONFLICT OF INTEREST**

All authors declare that no conflict of interest involves in this manuscript

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