ABSTRACT

Introduction: The dawn of the internet and social media together has started a change in the way information is created, communicated, and then distributed. Since anybody can share health content on social media, there has been some concern regarding the quality of the health information that is available on social media platforms like Facebook and Twitter. Information is frequently disseminated in the guise of rumours or news, regardless of whether or not it is true. Misinformation in the health domain is problematic because it can limit effective treatment options and also preventive measures. With the dominance of social media, concerns have arisen with regard to the spread of health misinformation because of the lack of gatekeepers and also because isolated communities are created on these platforms, enhancing the spread of misinformation. It is extremely difficult to manage public health when rumours circulate because they not only spread far more quickly than credible news, but also because they discourage individuals from engaging in desirable health behaviours and institutions from managing public health in a timely manner.

Methods: A four-phase study was carried out to understand the factors effecting the information disorder, the countering mechanisms used worldwide and the current policies and practices in place in Sri Lanka. Phase one covered the first specific objective, which was to identify the factors affecting information disorder and counter health misinformation. A rapid literature review was conducted during this phase. Phase two was conducted to cover the second specific objective. A cross-sectional study was conducted among Facebook users between the ages of 18 and 44 during the second phase, which had three main sections: which were knowledge the sample possessed about health misinformation, which was measured using a believability score and clustered according to responses. The attitude section assessed the participants' attitudes towards misinformation, and the third section was to assess the practices. The third phase covered the third specific objective, which was to understand the current policies and practices to manage information disorder and counter health-related misinformation on social media. Twelve informants from four institutes were interviewed during this phase. The final phase was to cover the fourth specific objective, which was to develop a set of agreed strategies and actions to counter health-related misinformation distribution on social media. An initial set of strategies were formulated following the results obtained from the literature review and the key informant interviews. Following that, a

nominal panel discussion was held to finalise a set of strategies that could be adopted for the Sri Lankan setting.

Results: After reviewing the total number of 233 articles, only 25 articles were selected for the final review. Thematic analysis of the selected literature was done, yielding thirty four codes under the broader categories of factors affecting misinformation and countering misinformation. A total of 444 participants responded to the cross-sectional study, which had three main sections. The knowledge section yielded three clusters within the respondents. However, there was no significance between the clusters and the demography of the participants. The practices section revealed that most of the participants preferred actively searching websites as the secondary source for more health information (40.0%) and as the source for vaccine related information (43.7%). Most of the participants preferred health posts with scientific facts or based on evidence (76.6%). Among the study participants, 21.8% had shared a post (within the last three months) on social media which they later found out was incorrect. The percentage of participants who would ignore false social media health-related content on social media was 62.6%. The attitude section revealed that the most trusted health information sources among the study population were social media content by the World Health Organization (90.77%). The proportion of respondents that were aware of the presence of health misinformation on social media was 94.6%. When inquired about their attitudes towards COVID-19 information, 85.59% agreed that they felt the media was not telling everything. The thematic analysis of the key informant interviews resulted in 115 codes and twelve code groups.

Discussion: An initial set of strategies to counter health misinformation were formulated following the results obtained from the literature review and the key informant interviews. Following that a nominal panel discussion and a set of ten strategies were identified that could be adopted for the Sri Lankan setting. However, misinformation countering is a very dynamic subject that will change on a frequent basis and, as a result, will need continuing studies to update the set of strategies. Furthermore, once implemented, a monitoring mechanism should be in place to understand the impact of the interventions. This would eventually help to improve the intervention.

Once the interventions are in place and their effectiveness is monitored, it needs to be ensured that the lessons learned are applied for future outbreak preparedness planning and

policymaking. To get a better output, the knowledge gained needs to be shared between the different public health institutes. Since health is not the only domain that is affected by the infodemic or the spread of misinformation, it is very important to work together with stakeholders of other domains to ensure a more successful intervention.