STRADA : Jurnal Ilmiah Kesehatan
DOI: https://doi.org/10.30994/sjik.v14i1.1140
ISSN: 2252-3847 (print); 2614-350X (online) Vol.14 No.1 May 2025 Page. 50-54

Knowledge and Awareness of Monkeypox Prevention: A Case Study in Timor Leste

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ABSTRACT

Monkey Pox is a pandemic or global problem and an international concern because the disease occurs in the world's most endemic and spread rapidly. According to data published by the Center for Disease Control and Prevention (CDC) in February 2023, there were up to 85.802 cases of worldwide, including 32 cases that resulted in death. With a total of 30.193 cases, the United States of America emerged as the country with the highest number of cases based on epidemiological data. The countries in Southeast Asia most affected by are Australia (41 cases), New Zealand (2 cases), Singapore (6 cases), South Korea (2 cases), Thailand (25 cases), and Indonesia (1 case). Ministry of Health in Timor-Leste announced in 2022, the country has not yet recorded any cases. The government of Timor Leste has established a contingency plan for prevention toolkits of spreads with cooperation WHO country Representative Timor Leste. Research Methodology is a quantitative descriptive approach with The sample techniques used were probability sampling with approch random sampling. Where study did at a secondary school São José Operário Balide located in Capital Timor Leste in 2024 with total 77 samples. Before sosialization the manner of prevention only 40% know, Comprehension and application only 34% and 26%, but after sosialization the prevention Monkey pox indicated improving level knowledge of students up to 100%. By socializing of information regarding the prevention of monkey pox to increased level of knowledge to prevent them self and continue imformation to each anothers.

Keywords: knowledge, mpox, prevention

Received March 5, 2025; Revised April 10, 2025; Accepted May 9, 2025

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BACKGROUND

Monkey pox is a global concern due to its rapid spread and endemic occurrence in various parts of the world (WHO,2022).Originating in Central and West Africa, is a zoonotic disease caused by the virus, a member of the group within the Poxvirus family. Patients suffering from often exhibit changes in the liver and lymphadenopathy (Suryo, 2022). Mpox is a zoonosis, a disease that is transmitted from animals to humans, with cases often found close to tropical rainforests where there are animals that carry the virus. Evidence of monkeypox virus infection has been found in animals including squirrels, Gambian pouched rats, dormice, different species of monkeys and others. (WHO, 2013) and Mpox also spread from humans to humans. It can be transmitted through contact with bodily fluids, lesions on the skin or on internal mucosal surfaces, such as in the mouth or throat, respiratory droplets and contaminated objects. (WHO, 2024).

Transmission of continues, putting people at risk of a potentially dangerous emerging pathogen which resembles smallpox. Following the declaration of a Public Health Emergency of International Concern and global efforts to curb the outbreak amidst continuing concern of the public health burden of in Africa, the overarching goal of this framework is to achieve and sustain elimination of human-to-human transmission of This framework emphasizes integrating efforts of all health including epidemiological disease surveillance; sexual health services, risk communication and community engagement; as well as primary health care, immunization and other clinical services. Coordination among all partners remains essential to ensure a continued robust response for Mpox (WHO, 2024).

According to data published by the Centers for Disease Control and Prevention (CDC) in February 2023, the number of cases worldwide increased by 85,802, with 32 reported fatalities. The United States recorded the highest number of cases at 30,193. The data suggests that the increase in the number of cases is linked to sexual activity among individuals of the same orientation. Direct contact with infected individuals also contributes to the spread of the virus (CDC, 2023). Also WHO reported the Republic of South Africa notified WHO of 20 confirmed cases between 8 May and 2 July 2024, including three deaths (case fatality ratio (CFR) of 15%). These cases were reported in three of nine provinces: Gauteng (10 cases; 1 death), Western Cape (1 case), and KwaZulu-Natal (9 cases; 2 deaths). These are the first cases of reported in South Africa since 2022 when the country had reported five cases, none of which were severe, and no deaths. The persons affected are men aged between 17 and 43 years old, and of the first 16 cases, 11 self-identified as men who have sex with men (MSM). At least 15 cases are living with HIV with unmanaged or only recently diagnosed HIV infection, and have advanced HIV disease (AHD), and one case has diabetes. The type of exposure contact reported by cases is sexual contact. Eighteen of the patients required hospitalization. Several response measures have been put in place by national health authorities with the support of WHO. The sudden appearance of these cases none of whom reported any history of international travel, the extremely high HIV prevalence among confirmed cases, and the high case-fatality ratio suggest that the confirmed cases are only a small proportion of all cases that might have occurred, and that community transmission is ongoing. The risk to human health for the general public remains low in the country. The risk for gay men, bisexual men, other men who have sex with men, trans and gender-diverse people, and sex workers is moderate. There is potential for increased health impact should wider dissemination among these and other vulnerable groups in South Africa and neighbouring countries continue. This event emphasizes that the global outbreak linked to clade IIb monkeypox virus (MPXV) is still ongoing, and the risk of cross-border and international spread persists in all WHO regions. (WHO, 2024).

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In 2022, the Ministry of Health of Timor-Leste reported that no cases of had been registered in the country. However, the government, in collaboration with the World Health Organization (WHO) representative in Timor-Leste, has developed a contingency plan to prevent the virus based on temporary recommendations from WHO (Moh-TL, 2022). Also A study conducted by Oche &Yusuh (2024) titled "Knowledge and Preventive Practices Related to Among Medical Doctors in Sokoto Metropolis of Sokoto State, Nigeria" found that 210 respondents had a good understanding of prevention monkey pox. Approximately 52.3% of respondents acknowledged using social media as a source of general information. A majority (72%) of doctors, due to their long-term work experience, had significant knowledge about the disease. Furthermore, 73% of respondents demonstrated or implemented preventive practices. Also A study conducted by Layn & Muchtar, F. (2023) titled *"Description Attitude and action of tour guidence with smallpox monkey prevention in Liya Togo village "*was carried out on tourists in Liya Togo Tourism Village in Indonesia. The study revealed that out of 80 respondents, 43.7% were aware of prevention, 92.5% had a positive attitude towards it, and 77.5% demonstrated the best practical action on prevention. To enhance the tourists' knowledge of prevention, it is suggested to share relevant information about the transmission prevention of at the research site. In 2022, the WHO made an official temporary recommendation to reduce the number of transmissions globally. The recommendation includes identifying or forming a health coordination mechanism with multisectoral, creating an intervention plan, and conducting immunization campaigns and vaccination for communities. It also suggests reactivating the health support group in each country to disseminate information about and its prevention methods (WHO, 2022).

METHODS

The method of research is a quantitative study with pre-experimental approach featuring a Group pre-test and post-test Design. The primary objective was to ascertain to compare the knowledge by measure result post-pre test for 77 students with with random sampling techniques at Secondary School São Jose Operario in Dili.

RESULTS

The data indicates that in the pre-test, the majority of responses were based on students' knowledge, accounting for 40% of the total. Students' understanding made up 34%, while application was the least represented category at 26%. In contrast, the post-test showed an equal distribution of responses across all three categories - knowledge, understanding, and application - each contributing to 100% of the total responses.

Knowledge	Pre-test		Post-test	
	F	%	F	%
Know	31	40	77	100
Understood	26	34	77	100
Application	20	26	77	100

The data indicates that in the pre-test part is showed only 40% know the prevention and 60% does'nt knowed. But after sosialization the manner of prevention Mpox mayority of students understand how to prevene they are self. Also the comprehension and application before give health education for Mpox only 34% and 26% from students understood but after sosialization the all of students will be applicate and continue give information to each others. Aldo the students.

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DISCUSSION

Notoatmodjo (2014) defines the lower level of knowledge as the ability to recall and contemplate the subject matter that has been studied. This level of knowledge is measured by the ability to reiterate, explain, and identify the learned material. Also Daryanto (2017) further elaborates that understanding a subject goes beyond mere knowledge and articulation. It involves a clear and comprehensive comprehension of the subject matter. Application" as the ability to utilize the learned subject in real-life situations and conditions.

From Resut study showed only 40% from students understand about prevention and 60% doesn't know how to prevent from a zoonosis in pre-test, indicating that 60% of the student's lacked awareness about the disease's prevention. However, after conducted an informational session on prevention by presention the manner prevention to contribute improving significantly the knowledge level in the post-test part.

Supported by findings of Oche & Yusuh (2024), said attitude, knowledge and awareness for prevention Mpox is 52.3% due to the use of social media as a source of information According to the research findings of Oche & Yusuh (2024) showed 72% the prevention Mpox influenced by their long-term work experience and knowledge of the disease. And Also Furthermore, a study by Layn & Muchtar, F. (2023) indicates that tourists' knowledge of prevention is at 43.7%.

The strategy of WHO (2024-2027) indicated the ability to prevent zoonotic transmission and mitigate the associated public health risk requires multidisciplinary investigation and research to fill knowledge gaps about reservoir species and transmission dynamics in families and communities, and to assess and scale up effective RCCE strategies to support community level action to stop outbreaks. Evidence from recent outbreaks in contexts with presumed animal-to-human transmission strongly suggests that most cases are the result of human-to human contact within families and communities. Thus, transmission can occur between children, between adults and children, and between adults through different forms of direct physical contact. Interventions to reduce health impact will include community engagement, risk communication, isolation of cases wherever feasible, covering of lesions and wearing of masks where isolation is a challenge, infection prevention and control measures to reduce fomite transmission, optimal clinical care to reduce the duration of illness, protection of health workers, and vaccination programmes. Vigilance must also be maintained to anticipate and detect any possible occurrence of spillback of MPXV from people to domestic pets, livestock or animal wildlife. In addition to animal surveillance and One Health coordination, countries should take steps to create, maintain and update strategies with operational and outcome targets to reduce risk to individuals, including health workers, and members of other communities at risk such as hunters and animal handlers. In the longer term, nearly all presumed zoonotic infections could be accounted for by documented exposures to animal reservoirs or vectors and onward spread in families and communities.

CONCLUSION

The improving knowledge of young generation is need by using social media for socializing of information regarding the prevention of monkey pox because from lower undestanding to increased level of knowledge for prevention.

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