Knowledge, Attitude and Risk Perception of COVID-19 in Rural Ghana: A Viewpoint

Shadrack O Frimpong¹²*, Sam Kris Hilton¹**, Moro Seidu¹, Sharon Dorcoo-Attipoe¹³, Yusuf Ransome⁴, Elijah Paintsil⁵⁶, Carol Brayne⁷

¹Research Department, Cocoa360, Accra, Ghana
²Department of Public Health and Primary Care, University of Cambridge, UK
³Tersha LLC, Alpharetta, GA, USA
⁴Department of Social and Behavioural Science, Yale School of Public Health, Yale University, USA
⁵Department of Pediatrics, Yale School of Medicine, Yale University, USA
⁶Department of Epidemiology of Microbial Diseases, Yale School of Public Health, Yale University, USA
⁷Corresponding Author: Shadrack O Frimpong, Research Department, Cocoa360, Accra, Ghana and Department of Public Health and Primary Care, University of Cambridge, UK; Email: sof20@cam.ac.uk

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Abstract

Many studies have been carried on COVID-19 exploring knowledge, risk perceptions, and attitudes to the infection and pandemic without examining the relationship between these constructs. This viewpoint suggests that risk perception may be a pathway between knowledge about COVID-19 and attitudes in rural Ghana. Thus, evaluating risk perceptions of diseases is imperative for community-based health interventions.

Keywords

COVID-19; Knowledge; Risk Perception; Attitudes
Abbreviations

WHO: World Health Organization; GHS: Ghana Health Service; SARS: Severe Acute Respiratory Syndrome; SARS COV-2: Severe Acute Respiratory Syndrome Corona Virus

Introduction

COVID-19 is an infectious disease that has adversely affected the global economy, claiming millions of lives worldwide [1]. COVID-19 was first reported in Wuhan city, the capital of Hubei province in Central China, in December 2019. It was declared a pandemic by the World Health Organization (WHO) on March 11, 2020, as it has spread throughout the world [2]. Ghana Health Service (GHS) reported that from March 12, 2020, to October 24, 2021, Ghana had confirmed 130,077 COVID-19 cases with 1,175 deaths (Table 1 and 2, Fig. 1) [3]. Despite the Ghanaian Government’s effort to fight the virus in urban areas, little attention has been paid to the response in rural areas.

With the absence of vaccination, precaution and attitude will be recommended, particularly in rural areas where there has been little or no support from the Government [4]. However, people have no information about the virus, and precaution has not been considered; therefore, little is known about these. Individuals' general culture plays a substantial role in the fight against the virus, but attitudinal change may depend on the virus severity level [5]. Many studies have been carried on COVID-19 exploring knowledge, risk perceptions, and attitudes to the infection and pandemic. Nevertheless, these studies have not examined the relationship among these constructs. This paper provides us with how risk perception could mediate the relationship between knowledge and attitudes in rural Ghana, where there is currently a dearth of research on COVID-19.
Knowledge about COVID-19

Knowledge about COVID-19 is vital for its management and control. Literature show that knowledge about COVID-19 can be obtained through awareness creation, insights on mode of transmission, awareness of symptoms and preventive measures, and access to information sources [6]. Here, we review these indicators of knowledge concerning public attitude and risk perception.
• Awareness: The consciousness of the destructive effect of COVID-19 disease aids one to make informed decisions to elude the effect of the disease. It follows that having accurate and timely access to information is an effective tool to guard against pandemics [7]

• Transmission: Studies show that the primary source of the COVID-19 is unnamed as researchers agree that the possible host of this virus is bats, pangolins, or seafood [1]. WHO posits that the causative agent of COVID-19, SARS-CoV-2 is reputed to be transmitted primarily through respiratory droplets and close contact with an infected person. It can also be transmitted through having indirect contact with surfaces within immediate surroundings or objects used on an infected person [8]

• Symptoms: COVID-19 manifestations are generally evident in an infected person after the virus incubation period (usually between 1-14 days), ranging from asymptomatic, mild, and moderate to severe [1]. The symptoms are mainly fever, cough, and fatigue and others include sputum production, headache, hemoptysis, diarrhea, breathlessness and pneumonia [9-11]. These conditions are manifested by symptomatic patients, but asymptomatic patients do not typically manifest them [12]

• Prevention: The WHO submits that education, isolation, control, and treatment of infected patients are crucial steps in preventing the spread of the virus [11]. The Centers for Disease Prevention and Control notes that the leading preventive measures against the spread of the virus include: (1) wearing a mask; (2) observing social distancing by staying at least 6 feet from others; (3) avoiding crowded and poorly ventilated places; (4) washing your hands often or disinfect using sanitizers with at least 60% alcohol concentration; (5) covering sneeze and cough; (6) cleaning and disinfecting high touch surfaces; (7) monitoring your health daily; and (8) getting vaccinated [13]

• Information sources: COVID-19 related information from the inception of the outbreak was obtained from the internet (including electronic news websites and social media such as Twitter, Facebook, YouTube, Instagram, and Whatsapp) and traditional media (television, newspaper, magazine and radio), family, friends, health workers, and information professionals [7,14]

Knowledge, Risk Perception and Attitude

The success or failure to combat this pandemic highly depends on the behaviour or attitude of the public [15]. It follows that human attitudes are crucial to helping stop or minimize the spread of the virus but the determinant of attitude during pandemics is knowledge about the pandemic [15-17]. Knowledge of the symptoms influences public attitudes towards the virus [18]. Undaunted behaviours towards the virus is due to unawareness of the ramifications of being infected by the virus [17]. These all suggest it is essential to motivate behavioural change
intentionally. Nonetheless, the people may resist such change depending on their risk perception level about the virus. People’s perception these symptoms as real, including the possibility of being infected, can equally influence attitudes towards the virus. It is anticipated that knowledge of the symptoms will influence the people’s risk perception, which in turn will affect attitudes.

Literature on similar SARS outbreaks indicated that the involvement in precautionary behaviour and compliance to control measures was due to a perceived higher risk of SARS infection [19]. For instance, when Ghana recorded its first COVID-19 case with the limited knowledge, citizens assumed immunity to the virus, because they thought the virus could not withstand the temperatures in Africa till the number of cases began to increase [20]. Particularly, the perception and attitude of rural folks in the northern part of Ghana, demonstrated a low level of awareness of COVID-19. Most of them believed that it was a (1) punishment from God, (2) disease from Satan/ witches, (3) disease for the rich, and (4) disease that cannot affect rural people [20]. Furthermore, compared to the urban areas, the rural folks are most likely not to have quick, accurate, and reliable dissemination of COVID-19 related information, perhaps due to poor internet connectivity in rural areas [20]. Therefore, the risk perceptions of populace in the rural communities are probably affected, thereby making them behave negatively towards the preventive measures [13].

**Conclusion**

Research submits that the attitudes of the people play a role in the fight against this virus, but attitudinal change may vary depending on the level of risk perception of the virus. The paper proposes that knowledge may have more substantial influence on attitudes through risk perception in a rural setting of a developing country, particularly Ghana. Thus, risk perception of the people must be keenly considered in rolling out any intervention to stop the spread of the virus and mitigate its negative impacts.

**Conflicts of Interest**

The authors declare that have no competing interest and not any conflict of interest.

**References**


