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The Percentage Acceptability of the Non-Pharmaceutical Measures in Containing the Spread of COVID-19 in Abuja, Nigeria

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ABSTRACT

COVID-19 is an efficient super spreading disease with numerical superiority among past pandemics. Vaccination, medication, drug repurposing are the pharmaceutical measures currently in use in combating the spread of COVID-19. However, the populace is skeptical about their use. The study objective was testing the acceptability of non-pharmaceutical measures in containing the spread. The phase-1 of the study is sourced from secondary data using appropriate keywords on six electronic databases, including ‘effective non-pharmaceutical intervention strategic’, ‘symptoms of COVID-19’, and ‘COVID-19 mode of transmissions’. The phase-2 is a Questionnaire from the phase-1 outcome which was administered to 2000 people in the Abuja metropolis. Phase-1 showed that the non-pharmaceutical measures for combating COVID-19 disease were handwashing, facemask, personal hygiene, restricted mass gathering, workplace closures, contact tracing, travel restrictions, quarantine, alcohol hand-based sanitizers, physical distancing, and nutritional intervention. Phase-2 results on the acceptability of non-pharmaceutical measures by 2000 people were; handwashing (24%), facemask (5%), personal hygiene (18%), workplace closures (4%), contact tracing (6%), travel restrictions (9%), quarantine (8%), alcohol hand-based sanitizers (10%), physical distancing (5%), and nutritional intervention (11%). Workplace closures have the lowest acceptability. In conclusion, the lowest value of workplace closure is hinged on the family economy.

Keywords: COVID-19, non-pharmaceutical measures, percentage acceptability, and pandemic.

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INTRODUCTION

The globe is currently battling with the COVID-19. It is an efficient super spreading disease with numerical superiority among past pandemics. This disease has created a

significant public health concern [1]. The causative organism is an RNA virus, with a typical crown-like appearance under an electron microscope attributable to the presence of glycoprotein spikes on its envelope [2].

The COVID-19 understanding is evolving and researches are on-going to understand more about transmissibility, severity, and other features associated with COVID-19.

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Prevention is, by far, the best practice in order to contain the spread of COVID-19 considering the insufficiency in the treatment of this disease. The best prevention is to avoid exposure to the virus [3]. Many pharmaceutical measures that are in current use in combating the spread of COVID-19 include vaccination, medication, drug repurposing and, others [1]. The populace is skeptical about their use even though the pandemic has presented the populace with unprecedented challenges in all sphere of life. Though challenges may lead to positive impact, it is usually through the hard way.

The doubting attitude by the populace on the use of pharmaceutical measures, has turned the world's attention to non-pharmaceutical measures in slowing the spread. The increase in compliance with the non-pharmaceutical intervention will reduce the person-to-person spread of COVID-19 [4]. The study objective was to test the acceptability of non-pharmaceutical measures in combating the spread.

METHODOLOGY

The study was in phases. The phase-1 of the study is sourced from secondary data using appropriate keywords on six electronic databases, including 'effective non-pharmaceutical intervention strategic', 'symptoms of COVID-19', and 'COVID-19 mode of transmissions'. The phase-2 is a Questionnaire from the phase-1 outcome and

administered to 2000 people in the Abuja metropolis to review the percentage acceptability of the non-pharmaceutical measures.

RESULTS

Tables 1 and 2 presented the findings of the present research. In phase-1 (Table 1), the non-pharmaceutical measures in use for combating the COVID-19 outbreak, following the searched from published data were; handwashing, facemask, personal hygiene, workplace closures, contact tracing, travel restrictions, quarantine, alcohol hand-based sanitizers, physical distancing, and nutritional intervention. In the second phase, (Phase-2), the ranking in the order of acceptability by 2000 people was done (Table-2). The percentage acceptability in the use of these non-pharmaceutical measures was; 24% in handwashing, 5% in the facemask, 18% in personal hygiene, 4% in workplace closures, 6% in contact tracing, 9% in travel restrictions, 8% in quarantine, 10% in alcohol hand-based sanitizers, 5% in physical distancing, 11% in nutritional intervention. The handwashing and workplace closures were the highest (480:24%) and lowest (80:4%) acceptability respectively, among the ten selected non-pharmaceutical measures.

DISCUSSION

Non-pharmaceutical interventions are strategies for disease exposure control [5]. It

is a viable option for combating the spread of viral illness [5]. The ten non-pharmaceutical measures as in present study were similarly as reported by Wei and Ren [6]. The analyses of the ten non-pharmaceutical measures (from Handwashing to Nutritional intervention) showed that handwashing had the highest acceptable. Hands are the critical vector for microorganism transmission [7]. It is a simple primary preventive measure that most people do independently. The first line of defense in stopping the spread of infection is handwashing with soap. Handwashing features very strongly as non-pharmaceutical measures with considerable attention in the COVID-19 pandemic [8]. Also, to a greater presence on social media platforms and other advertising outlets, the importance of handwashing is now frequently seen on daily news reports. The workplace closures as the lowest

acceptability might relate to the strain on incomes resulting from the decline in economic activity. It could cause many families to live below the poverty line. The findings of this current research provided available non-pharmaceutical measures to combat the spread of COVID-19 and equally analyzed the acceptability of these measures. The percentage acceptability may differ from one society to the other, depending on the influencers.

CONCLUSION

This study shows a holistic picture of the current acceptability of the non-pharmaceutical in response to the outbreak of COVID-19. We recommend that the scholarly community conduct further research to provide valid and reliable ways to improve the acceptability of the non-pharmaceutical measures to contain the spread of COVID-19.

Table 1: Non-pharmaceutical measures for combating COVID-19 from phase 1 search

Non-pharmaceutical measures	HW	FM	PH	WC	CT	TR	Q	AH	PD	NI
Serial numbers	1	2	3	4	5	6	7	8	9	10

HW=handwashing, F= facemask, PH= personal hygiene, WC=workplace closures, CT= contact tracing, TR= travel restrictions, Q= quarantine, AH = alcohol hand-based sanitizers, PD = physical distancing, NI = nutritional intervention.

Table 2: Percentage acceptability of non-pharmaceutical measures in Phase 2

NPM	HW	FM	PH	WC	CT	TR	Q	AH	PD	NI
SQ 2000	480	100	360	80	120	180	160	200	100	220
Percentage (%)	24	5	18	4	6	9	8	10	5	11

HW= handwashing, F= facemask, PH= personal hygiene, WC= workplace closures, CT= contact tracing, TR= travel restrictions, Q= quarantine, AH= alcohol hand-based sanitizers, PD= physical distancing, NI= nutritional intervention, NPM= non-pharmaceutical measure and SQ 2000= Scores from 2000 questionnaires.

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