Perception and practices during the COVID-19 pandemic in an urban community in Nigeria: A Cross-sectional Study

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Abstract

BACKGROUND.

Various perceptions, and practices have been associated with the COVID-19 pandemic. In this study, we assessed the perception and practices regarding COVID-19 among residents in selected urban communities of Ibadan, Oyo State, Nigeria.

METHODS.

 A descriptive cross-sectional study design using a multi-stage sampling technique was used to recruit 360 respondents (Mean age: 33.2 ± 10.6 years; 62.5% females) from households in Ibadan. Data were collected using an interviewer-administered questionnaire from 3rd – 6th June 2020. Those who demonstrated washing of the palm, back of the hand, spaces between the fingers, fingernails, wrist, and thumbs had 6 points and were categorized to have had a good practice of handwashing. Descriptive statistics were conducted. Bivariate analyses of sociodemographic characteristics and good hand washing practices were conducted using Chi-

30   square test. Logistic regression was conducted to identify the determinants of good handwashing

31   practices. P-values <0.05 were statistically significant.

32

33   **RESULTS.**

34   Going to the hospital (95%) and calling the COVID-19 help number (58.3%) were the frequently

35   reported practices among respondents following the development of COVID-19 symptoms. Also,

36   89 (26%) knew they could contract COVID-19, while 41 (12%) perceived it as an exaggerated

37   event. The effects most frequently reported by respondents were hunger/low income (48.8%) and

38   academic delay (8.8%). Use of face masks by 64.5% and social distancing (48%) were the most

39   frequently reported practices for prevention. Only 71(20.8%) demonstrated good handwashing

40   practices. The perception of likelihood to contract COVID-19 and practices to prevent COVID-

41   19 had a weak correlation of 0.239(p<0.001).

42

43   **CONCLUSION.**

44   Gaps exist in the practices that prevent COVID-19. There is a need to improve handwashing, use

45   of face masks and other practices that prevent COVID-19. Implications across public health

46   communication and policies were stated.

47

48   Keywords: Coronavirus, COVID-19, risk perception, handwashing practices, Nigeria.

49

50   **Introduction**

51

52   The Coronavirus infection (COVID-19) is an emerging infectious illness which broke out during

53   the winter of 2019 (Al-Hanawi et al, 2020; WHO, 2020). Due to its presentations, it has been

54   declared a public health emergency of international concern by the World Health Organization

55   (WHO) (WHO, 2020). An alarming response has been introduced across the globe due to its

56   high infectiousness and case fatality rate (Zhong et al., 2020). The identification of the risks and

57   the prevention of infectivity regarding COVID-19 have been stated to depend on human

58   perception (Zhong et al., 2020). Especially in the submergence of an infectious disease such as

59   COVID-19, different thoughts have shaped individuals' views on the illness.

60

61 Currently, the Coronavirus disease has spread to 213 countries with nearly 24 million confirmed
62 cases with close to 820,000 recorded deaths (WHO, 2020). Publicly available reports from the
63 Africa Centre for Disease Control (ACDC) states that confirmed cases of COVID-19 had risen to
64 1,203,769 and 28,289 deaths as of 25th of August 2020 (ACDC, 2020). As of 25th of August
65 2020, the West African subregion accounted for a significant proportion of cumulative COVID-
66 19 records in Africa. In Nigeria, there are 52,800 confirmed cases of COVID-19 with a total of
67 1007 deaths as of 25th of August 2020 (NCDC, 2020; WHO, 2020). Oyo State presently holds
68 the third spot on the Nigeria Centre for Disease Control (NCDC) daily COVID-19 updates, with
69 3058 laboratory-confirmed cases of COVID-19 and 37 deaths (NCDC, 2020). Urban areas in
70 Ibadan, the capital city of Oyo State frequently present with confirmed cases (Enwongo, 2020).
71
72 As a part of the emergency response activities across all States in Nigeria, health education
73 campaigns have been directed at members of the public (NCDC, 2020). These campaigns have
74 been aimed at knowledge improvement and the correction of certain misconceptions that have
75 been widely circulated among community members (NCDC, 2020) Education on precautionary
76 measures such as wearing of face masks, regular handwashing with soap and water or with
77 alcohol-based hand sanitizers, and social distancing have been done (NCDC, 2020; The Pace
78 Setter State, 2020).
79
80 It is evident that perception shapes one's knowledge and the adoption of safety measures
81 concerning the transmission of an infection. Data obtained from the perception of community
82 members regarding COVID-19 could help target interventions needed to improve the knowledge
83 of community members regarding Coronavirus. Superstitious beliefs have largely shaped the
84 perception of most Nigerians regarding the source and cause of COVID-19 (Chukwuorji & Iorfa,
85 2020). At the onset of the COVID-19 outbreak in Nigeria, infected persons belonged to either the
86 political class or high socioeconomic cadre (Chukwuorji & Iorfa, 2020). The characteristic
87 prevalence of COVID-19 infection among this group of persons accorded COVID-19 the name,
88 'a disease of the rich and mighty' (Nwaubani, 2020). Few months into the COVID-19 outbreak
89 in Nigeria, perceptions revolved around "immunity" to COVID-19 among the religious folks
90 with a disregard of bans on religious gatherings (Lichtensein, Ajayi, & Egbunike, 2020). Such
91 perceptions could have been influenced by several factors. Social media platforms such as

92 WhatsApp, Facebook, and Twitter have been used to spread false news on COVID-19, resulting

93 to panic disorder and anxiety among some persons and shunning of safety measures among

94 others (Aluh & Onu, 2020; Olapegba et al., 2020). Among many persons, physical distancing,

95 social isolations, restriction of religious and social gatherings etc. have been opined as alien

96 solutions in overcoming the COVID-19 pandemic in Nigeria and Africa at large (Olapegba et al.,

97 2020).

98

99 Literatures have reported the existence of knowledge relating to COVID-19 among Nigerians,

100 and it is expected that this would influence precautionary behavior among them. However,

101 inherent wrong perceptions may contribute to COVID-19 risk aversion measures (Iorfa et al.,

102 2020). Perceptions of COVID-19 has been influenced by age and gender. Due to their increased

103 vulnerability to illnesses, older persons have been predicted to increasingly adopt COVID-19

104 precautionary behavior compared to other population groups (Iorfa et al., 2020). Females have

105 been identified as models in the adoption of precautionary health behavior. In the COVID-19

106 context, the practice of handwashing, hygiene, and use of face masks occur more frequently

107 among females than males (Iorfa et al., 2020). Such an occurrence could be due to the perceived

108 susceptibility to illnesses among females as well as their health-conscious nature.

109

110

111 Given the importance of risk perception in behavior modification for disease control, it becomes

112 pertinent to assess the perception and practices regarding COVID-19. To the best of our

113 knowledge, the perception, and practices of community members in urban areas in Ibadan

114 regarding COVID-19 is currently unknown. An assessment of the perception and practices of

115 community members is important to reduce the risk for COVID-19 infection in Ibadan, a densely

116 populated city in Nigeria. We hypothesized that there is no difference in the sociodemographic

117 characteristics of the community members with the practices of COVID-19 mitigating factors.

118 This study thus aimed at assessing the perception and practices of community members in urban

119 areas in Ibadan regarding COVID-19.

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123

124

Materials & Methods

Study design and study setting

127

128 A descriptive cross-sectional study design was used. Data was collected using an interviewer-
129 administered questionnaire. Data collection took place from the 3rd of June to the 6th of June
130 2020. The study was carried out in Ibadan, Oyo State Nigeria. Ibadan is the capital city of Oyo
131 State. Oyo State is one of the states in the south western part of Nigeria. Between 15th of June
132 and 10th of August, 2020, confirmed COVID-19 cases had risen from 764 to 2,887 in Oyo State,
133 and the State ranks next to Lagos State and the Federal Capital Territory on the NCDC reports
134 for COVID-19 (NCDC, 2020; Enwongo, 2020). The official language in Nigeria is English,
135 while the major informal language for communication in Ibadan is Yoruba, which has different
136 dialects.

137

Study population

139

140 The study population for the survey was one eligible member of the households in the selected
141 urban communities in Ibadan, Oyo State. All consenting household members were included in
142 the study. Household members that were less than 18 years were excluded. Verbal consent was
143 obtained from participants.

144

Sample size determination and sampling technique

146

147 The sample size was calculated using sample size formula for descriptive cross-sectional study.
148 The population of the selected LGA is >100,000. The sample size was calculated using the
149 Leslie Kish formula for sample size determination for a single proportion as follows:
150 $n=Z\alpha^2 p\ (1-p)/d^2$ where:
151 n= Minimum desired sample size
152 Z= the standard normal deviate, usually set as 1.96 which corresponds to 5% level of
153 significance.

154 P= 50% was be used

155 d= Degree of accuracy (precision) set at 5 % (0.05)

156 n= 1.96^2x0.5x (1-0.5)/0.05^2=384

157   A sample of 360 (93.8%) were studied in the urban communities of Ibadan. A multi-stage

158 sampling technique was used to select the respondents for the study

159

160 Stage 1:

161 Simple random sampling was used to select 3 out of the 6 urban local government area in Ibadan.

162

163 Stage 2:

164   In each of the selected LGA, a political ward was chosen for the study.

165

166 Stage 3:

167   A center location was chosen in the selected ward. A bottle was rotated to determine the

168 direction of movement of the interviewers. From the direction of the bottle tip all consenting

169 eligible adults from the households were included in the study until 120 persons were

170 interviewed in each LGA.

171 Sampling of 120 each in the three urban LGA gives a total sample size of 360.

172

173 **Data Collection Methods**

174

175 The questionnaire has two sections.

176 Section A: Sociodemographic characteristics

177 The sociodemographic characteristics include age of respondents, sex, highest level of education,

178 ethnicity, and occupation.

179

180 Section B: Perception and practices regarding COVID-19.

181 Close-ended questions were asked on perception of the respondents on COVID-19, their current

182 practices, and what they would do if they were infected. Open-ended questions were asked on

183 the effects of COVID-19 on and suggestions to the government to curb the pandemic.

184

185   A six-point question was asked on the practice of handwashing. The respondents were asked to
186   demonstrate how they usually practice handwashing. The interviewer correctly marked all the
187   points demonstrated by respondents.
188
189   The questionnaire was adapted from a tool used for a similar perception study on Ebola Virus
190   Disease in 2014 (Gidado et al., 2014). The tool was validated by an infectious disease
191   epidemiologist. Pre-testing of the tool was done by administering 10 questionnaires in another
192   Local Government Area not selected for the study. A few ambiguous questions were modified.
193   Back-to-back translation of the questionnaire was done by experts who had sound understanding
194   of the Yoruba language. The questionnaire was administered to most of the respondents in
195   Yoruba Language. Data collection was done by trained research assistants with a minimum of
196   first degree.
197
198   Independent variables included: Sociodemographic characteristics like age, sex, level of
199   education, and occupation.
200   Outcome/dependent variables were the practice of handwashing and the use of other mitigating
201   measures.
202
203   **Data Management**
204
205   Data were analyzed with SPSS version 23. Age was summarized using mean and standard
206   deviation, while frequencies, and percentages were used for categorical variables. A total score
207   of 6 was assigned to good practice of hand washing after the respondents were asked to
208   demonstrate hand washing. One point each was assigned for the following: palm, back of the
209   hand, spaces between the fingers, fingernails, wrist and thumbs. Only those who demonstrated
210   the 6 points were categorized to have had a good practice of handwashing. Chi square test was
211   used for the assessment of associations between sociodemographic characteristics and practice of
212   handwashing. Pearson correlation was conducted between the perception of the likelihood of
213   contracting COVID-19 and practices to prevent COVID-19. Multivariate analysis of the
214   determinants of good handwashing practices was conducted using Logistic regression. P-values
215   < 0.05 were accepted as significant.

216

Ethical Approval and Consent to Participate

218

219 Ethical approval to carry out the study was obtained from the Oyo State Ministry of Health

220 Ethical Review Committee, with reference number AD/13/479/1779[A]. Permission for the study

221 was sought from the respondents and their confidentiality was ensured. The respondents were

222 informed of their right to decline or withdraw from the study at any time without any adverse

223 consequences. No harm came to participants because of participation in this study.

224

Results

226

227 A total of 360 respondents were interviewed among urban residents in Ibadan. The mean age was

228 33.2 ± 10.6 years, and 225 (62.5%) were females. Those with secondary education and above

229 were 332 (92.2%), 314 (87.2%) were of the Yoruba ethnic group, and 171 (47.5%) engaged in

230 business or trading. (Table 1). Among the 360 respondents 342 (95%) have heard of COVID-19.

231

232 Most frequently reported practices among respondents following the development of COVID-19

233 symptoms were: Going to the hospital 171(50%) and calling the COVID-19 help number 105

234 (30.7%). The other reported practices included: Praying and staying at home each with 29 (8.5%)

235 respondents as shown in Figure 1.

236

237 Regarding COVID-19, 89 (26%) knew they could contract COVID-19, while 41 (12%)

238 perceived it as an exaggerated event. It was also perceived as an intention for corruption by 23

239 (6.7%), COVID-19 was an attack by the Western World was reported by 68 (19,9%), and

240 122(35.7%) called COVID-19 a source of panic. The effects most frequently reported by

241 respondents were hunger/low income 167 (48.8%) and academic delay 30 (8.8%). Regarding

242 suggestions to the government, 108 (31.6%) suggested the provision of medical

243 supplies/palliatives/ seeking of cure, while 68 (19.9%) suggested free testing/free treatment.

244 Other effects of COVID-19 and suggestions to the government are as shown in Table 2.

245

246   The most frequently reported practice for prevention of COVID-19 among respondents were the

247   use of face masks by 224 (65.5%) and social distancing by 164 (48%). Others included: Staying

248   at home/following COVID-19 updates 8 (2.2%), taking Vitamin C/fruits/warm water 4 (1.1%),

249   and doing nothing 5 (1.4%) as shown in Figure 2.

250

251   Figure 3 shows that only 80 (22%) of respondents demonstrated good handwashing practices.

252   Among respondents aged less than 25 years, 16 (23.5%) had good handwashing practice

253   compared to 14(29.8%) aged above 45 years. Among females, 49 (22.8%) had good

254   handwashing practices compared to 22(17.3%) males although these differences are not

255   statistically significant (Table 3).

256

257   Males have 27.5% less odds of having good hand washing practice compared to females, though

258   not statistically significant [AOR 0.725,95%CI=0.418-1.259, p=0.253] (Table 4).

259

260   The perception of the likelihood to contract COVID-19 and practices to prevent COVID-19 had

261   a weak positive correlation of 0.239(p<0.001).

262

263   **Discussion**

264

265   This study found that many individuals lived in denial of the existence of COVID-19. The

266   perception of the illness as an avenue for politicians to enrich themselves indicates that there still

267   exists inadequate knowledge of the Coronavirus among community members in Ibadan. Denial,

268   ignorance regarding COVID-19, and the existing lack of trust in the Nigerian government have

269   been reported since the outbreak of COVID-19 in Nigeria (Chukwuorji & Iorfa, 2020). From the

270   present study, a high rating of the perceived likelihood of contracting COVID-19 was observed

271   among 26% of respondents, while it was minimally perceived as an attack by the Western World

272   among nearly 20%.

273

274   Findings obtained from this study revealed that the practices most often adopted following the

275   development of COVID-19 symptoms were either to go to the hospital or call the COVID-19

276   help number. This indicates that the source of help for COVID-19 treatment is well known

277 among community members in urban areas of Ibadan. Although distrust in government capacity

278 regarding COVID-19 is currently obtained, individuals are willing to take proactive measures

279 following the suspected development of COVID-19 symptoms (Chukuorji & Iorfa, 2020). An

280 Indian study similarly reported that hospital visitation was frequently opted for as a step to be

281 taken following the development of COVID-19 in individuals in a close relationship (Dkar et al.,

282 2020).

283

284 We found that the use of face masks and practice of social distancing measures were more

285 frequently embraced among respondents compared to other COVID-19 mitigation measures,

286 although full adherence was low. A web-based study conducted in Nigeria mostly stated mouth-

287 covering while sneezing, wearing of face masks, and avoidance of crowded spaces as self-

288 reported practices among respondents (Iorfa et al., 2020). Our findings revealed that myriads of

289 perceptions were associated with COVID-19. These included COVID-19 as an exaggerated

290 illness with intentions for corruption, its highly infectious and deadly nature, and a reason for

291 panic disorders. Similarly, the likelihood of positive practices concerning COVID-19 was

292 associated with a positive perception of the risk of infection (Zhong et al., 2020). Findings from

293 previous studies conducted in Nigeria also corroborate the key role of positive risk perception on

294 imbibing COVID-19 protective practices and attitudes (Iorfa et al., 2020). The finding from the

295 present study contradicts the assumption of the Health Belief Model (HBM) that protective

296 actions are more likely to succeed a high level of perceived susceptibility (Tarkang et al., 2015).

297 The results obtained herein is higher than the knowledge concerning the practice of face masks

298 in Saudi Arabia (Al-Hanawi et al., 2020). Due to its deadly nature, COVID-19 has introduced

299 fear which has compelled protective actions from individuals regarding the illness (Zhong et al.,

300 2020).

301

302 Previous studies have shown that fear could motivate healthy behavior among individuals

303 especially during epidemics, but such behavior may not be sustainable (Witte, 1998; Nabi, 1999;

304 Ufuwa et al., 2020). The adoption of these healthy behaviors in the present study is in tandem

305 with the recommendations of the World Health Organization (WHO) on safety measures for

306 COVID-19 (WHO, 2020). The insufficiency of fear as a propellant for adherence to

307 recommended guidelines for COVID-19 has been reported to be an outplay of knowledge-

308 attitude discrepancy (Iorfa et al., 2020). These findings imply that individual perception of
309 infectious illnesses such as COVID-19 may not be sufficient to influence the adoption of
310 protective practices. This explains the need for a regular sensitization of community members on
311 COVID-19 safety measures regardless of their perception concerning the illness.

312

313 We found that the practice of handwashing was commoner among individuals with a greater risk
314 perception for COVID-19. Because these individuals perceive themselves as vulnerable to
315 COVID-19 infection, they are more likely to engage in handwashing practice. Handwashing
316 practice has been identified as one of the mitigation strategies for breaking the chain of COVID-
317 19 transmission. An online-based Nigerian survey revealed a higher practice of handwashing
318 compared to other COVID-19 preventive measures (Iorfa et al., 2020). A study conducted in
319 Ibadan on hand hygiene practices post Ebola virus disease outbreak revealed a high proportion of
320 inadequate self-reported hand hygiene practice (Martins & Osiyemi, 2017). Lassa fever studies
321 conducted in Edo State reported inadequate handwashing practices, while a similar study in
322 Kaduna State, Nigeria reported good handwashing practices among respondents (Tobin et al.,
323 2019;). The similarities of most of these findings with ours imply the wide acceptance of the
324 practice of handwashing in the management of infectious diseases.

325

326 Findings from this study revealed a higher likelihood of good handwashing practices among
327 females than males, although it was not significant. Our finding contradicts cultural notions
328 which suggests that hygiene measures are more frequently practiced among females than males.
329 However, a few other studies have reported no difference in the practice of hand hygiene among
330 males and females in Nigeria (Ogunsola et al., 2013; Martins & Osiyemi, 2017). The agreement
331 of our findings with reference literatures could be due to the alienation of regular and proper
332 handwashing practices in the Nigerian context. This could therefore have contributed to the
333 observed level of handwashing practices among males and females as found in this study. The
334 availability of water and sanitation access have been identified as major determinants of good
335 handwashing practices (Ogunsola et al., 2013). However, these basic amenities are not readily
336 available in many Nigerian homes (Uchejeso & Obiora, 2020). This therefore prompts
337 overcrowding of persons at wells and boreholes, a condition which necessitates the use of water
338 in small amounts either for hand washing or other purposes. Findings from this study thus imply

339   the need for improved access and portable water supply as required for the reduction of COVID-
340   19 transmission in the communities.

341

342   We found that COVID-19 poses significant threat to local economy, resulting in low income and
343   resultant hunger. This is likely due to the increased cost of purchasing goods or a result of the
344   lockdown which has denied many individuals the opportunity to earn their income. Denial of
345   opportunities to engage in money-making ventures was experienced and impacts such as hunger
346   was greatly felt among many persons (Chukwuorji & Iorfa, 2020). This explains the need for the
347   provision of palliatives to fight hunger and reduce susceptibility to other infections during the
348   COVID-19 outbreak. Similarly, decreased productivity and job losses and an unprecedented
349   economic disaster have been reported (Atalan, 2020). Contrary to the finding in this study, other
350   studies have reported stress and anxiety as psychological reactions due to the Coronavirus
351   pandemic (Atalan, 2020). Other psychological reactions such as boredom, anger, and loneliness
352   have been notably identified as resultant threats during the COVID-19 pandemic (Aluh & Onu,
353   2020). This calls for the provision of psychosocial support for individuals during the COVID-19
354   lockdown. Interestingly, a recognition of the significance of essential staff has also resulted from
355   the COVID-19 outbreak (The National, 2020).

356

357   Pertaining to suggestions to the government concerning COVID-19 containment, the provision
358   of medical supplies and palliatives received highest recommendation among respondents. Most
359   Nigerian households depend on daily earnings of breadwinners, and difficulty in survival was
360   experienced during the COVID-19 lockdown which lasted for three months in Nigeria
361   (Chukwuorji & Iorfa, 2020). Also, health education, the enforcement of preventive measures,
362   and free testing and treatment received much recognition. These imply two things. Firstly, health
363   education concerning COVID-19 should be done by public health officials in simple,
364   unambiguous languages which will facilitate the understanding of community members.
365   Secondly, the availability of medical supplies and palliatives would enhance the adherence to
366   safety measures for COVID-19, such as the use of face masks among community members.
367   Similar suggestions have been made in previous studies (Kebede et al., 2020)

368

369

370 **Strengths of the Study**

371

372 Up to date, most studies on perception and practices regarding COVID-19 have used electronic

373 sources for data collection, and such results may have been biased. Our study is a community-

374 based physical study that used a semi-structured interviewer-administered questionnaire. To the

375 best of our knowledge, it is the first to study the perception and practices of adult population in

376 urban communities in Nigeria. The study also made use of an adequate sample size (360 adults).

377

378 **Limitations of the Study**

379

380 As this study was limited to the perception and practices regarding COVID-19, the knowledge of

381 community members on the illness was not addressed. The assessment of factors influencing

382 COVID-19 practices among community members was obscure in this study.

383

384 ## Conclusions

385

386 The adoption of preventive measures is critical to forestall onward transmission of COVID-19.

387 However, adequate, and correct risk perception for COVID-19 is required to enable the adoption

388 of COVID-19 safety measures. We hereby recommend enhanced sensitization and health

389 education sessions for all community members about COVID-19 in Ibadan metropolis regardless

390 of their sociodemographic characteristics. Also, health campaigns should be more focused on

391 practices such as regular handwashing with soap and water, physical and social distancing,

392 which protect against transmission of COVID-19 among community members irrespective of

393 their sex. In addition, access of individuals to portable source of water supply should be enabled

394 by increased provision of water sources in residential apartments. The government should also

395 install more infrastructures for water supply where dearth of water exists.

396

397 ## Acknowledgements

398 The authors express their gratitude to all community members for their willingness and

399 cooperation to participate in this study.

400

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Figure 1

Practices of Ibadan residents to COVID-19 symptoms

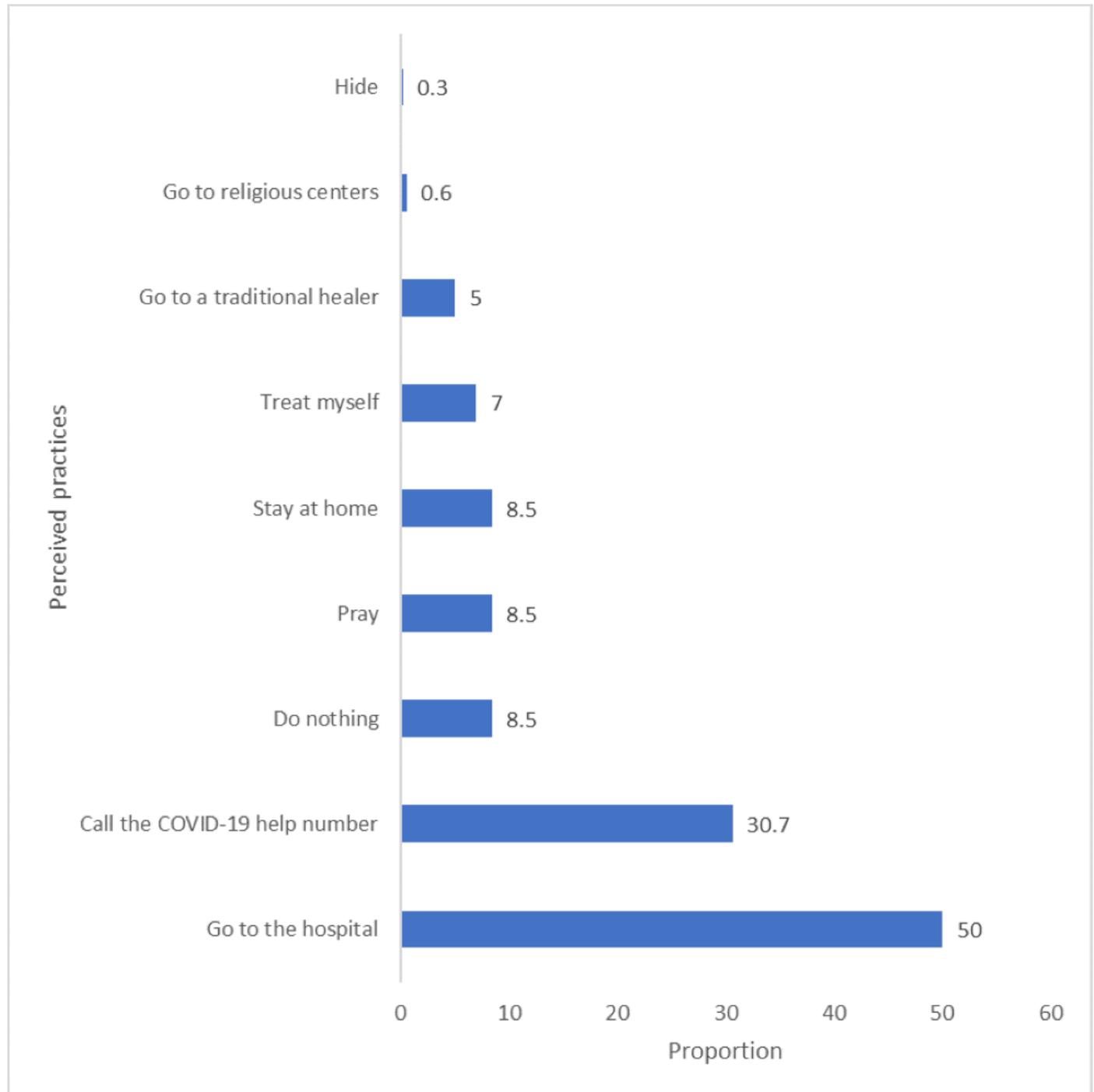



Figure 2

Practices of COVID-19 prevention among respondents

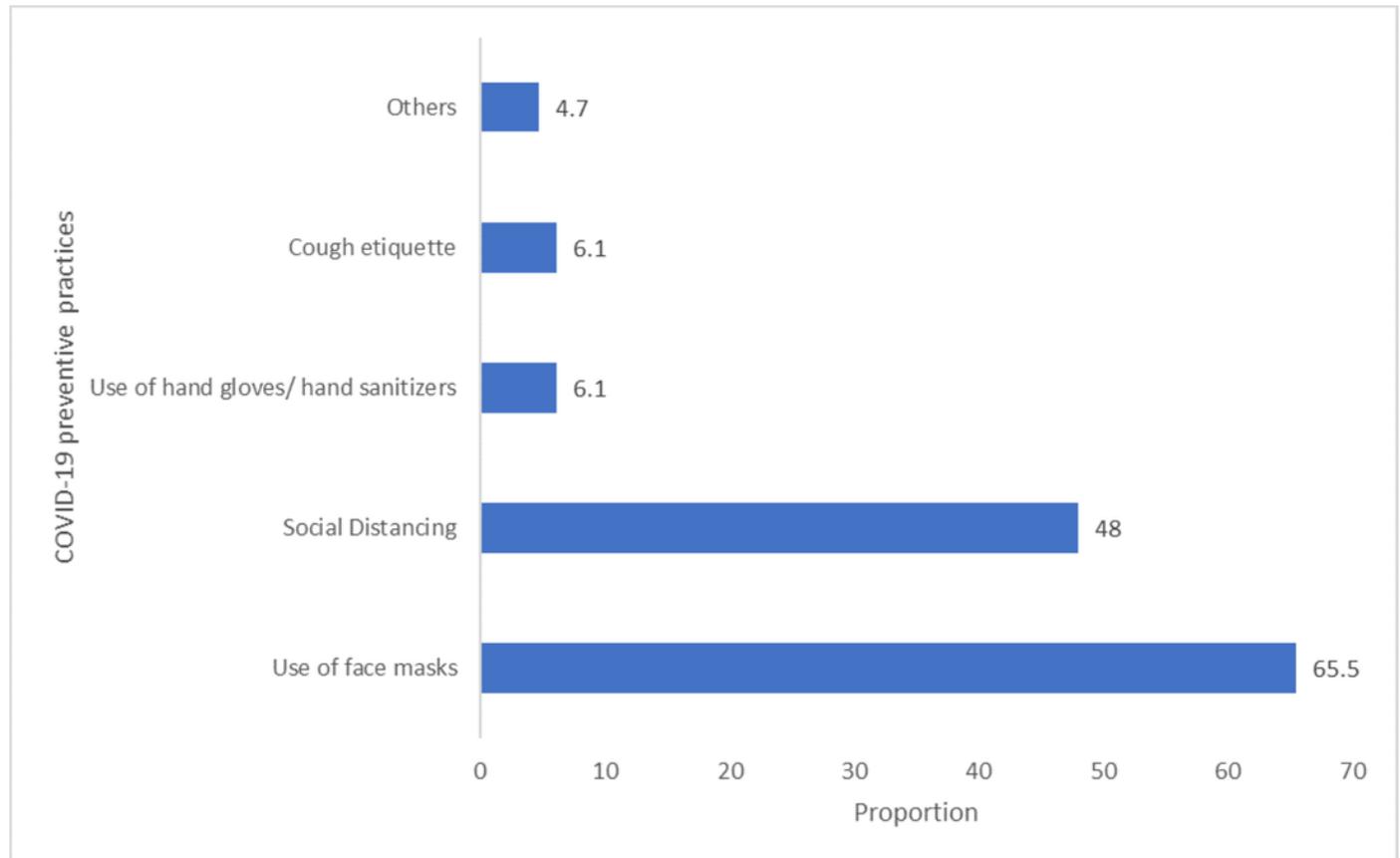
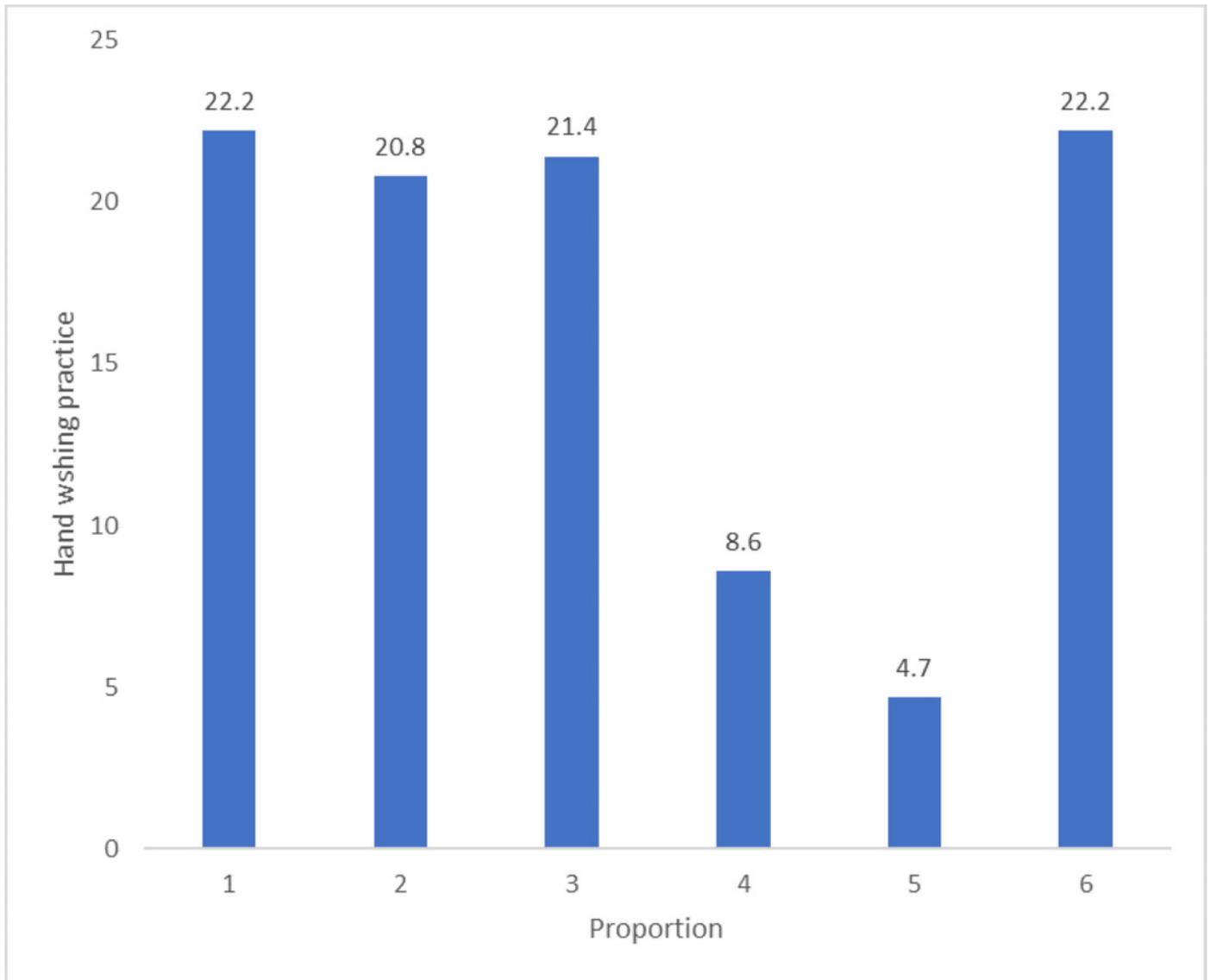



Figure 3

Points scored in handwashing demonstration

Sociodemographic characteristics of respondents among Ibadan residents, 2020

Socio-demographic Characteristics	Frequency	%
Age group (Years)		
<25	70	19.4
25-34	136	37.8
35-44	106	29.4
≥45	48	13.3
Sex		
Male	135	37.5
Female	225	62.5
Highest level of Education		
Primary and below	28	7.8
Secondary and above	332	92.2
Ethnicity		
Yoruba	314	87.2
Ibo	31	8.6
Hausa	8	2.2
Others	7	1.9
Occupation		
Business/Trader	171	47.5
Artisans	110	30.6
Professional/Civil Servant	30	8.3
Unemployed/housewife/student	49	13.6

Perceptions and effects of COVID-19 and suggestions to government by community members in Ibadan, 2020

Variables	n (%)
Perception on COVID-19	
It creates a lot of panic	122 (35.7)
It is a deadly disease	94 (27.5)
I am at risk of COVID-19 infection	89 (26)
It is highly infectious	72 (21.1)
It is an attack by the Western World	68 (19.9)
It is just being exaggerated	41 (12)
It has no cure	33 (9.6)
Don't believe it exists	28 (8.2)
An intention for corruption	23 (6.7)
Effects of COVID-19	
Hunger/Low income	167 (48.8)
Academic delay	30 (8.8)
Restricted movement/No going to work	25 (7.3)
No gatherings	20 (5.8)
Suggestions to Government	
Provide medical supplies/Palliatives/Seek cure	108 (31.6)
Health Education/Enforce preventive measures	70 (20.5)
Free testing/Free treatment	68 (19.9)
Stop reporting false figures/Lift lockdown and bans	44 (12.9)
No idea/Do anything	27 (7.9)

Association between sociodemographic variables and practice of handwashing among community members who have heard of COVID-19 in Ibadan 2020

Sociodemographic Variable	Practice of hand washing		Chi-square	p-value
	Good	**Poor**		
Age	**n (%)**	**n (%)**		
<25	16 (23.5)	52 (76.5)	3.890	0.274
25-34	22 (16.9)	108 (83.1)		
35-44	19 (19.6)	78 (80.4)		
>44	14 (29.8)	33 (70.2)		
Sex				
Male	22 (17.3)	105 (82.7)	1.451	0.228
Female	49 (22.8)	166 (77.2)		
Highest level of Education				
Primary and below	7 (26.9)	19 (73.1)	1.109	0.775
Secondary and above	64 (20.3)	252 (79.7)		
Ethnicity				
Yoruba	62 (20.8)	236 (79.2)	0.592	0.898
Ibo	6 (20.7)	23 (79.3)		
Hausa	1 (12.5)	7 (87.5)		
Others	2 (28.6)	5 (71.4)		
Occupation				
Business/Trader	31 (19.3)	130 (80.7)	0.915	0.822
Artisans	24 (23.1)	80 (76.9)		
Professional/Civil Servant	5 (17.2)	24 (82.8)		
Unemployed/housewife/student	11 (32.9)	37 (77.1)		

Multivariate analysis of the determinants of good handwashing practices

Sociodemographic Variable	AOR	95%CI of AOR		p-value
		Lower	Upper	
Age				
<25	0.764	0.276	2.116	0.605
25-34	0.534	0.248	1.151	0.109
35-44	0.595	0.271	1.306	0.196
>44	1			
Sex				
Male	0.725	0.418	1.259	0.253
Female	1			
Highest level of Education				
Primary and below	1.146	0.451	2.911	0.775
Secondary and above				
Ethnicity				
Yoruba	1.279	0.534	3.065	0.581
Ibo	0.750	0.083	6.735	0.797
Hausa	1.279	0.534	3.065	0.581
Others				
Occupation				
Business/Trader	0.933	0.358	2.434	0.888
Artisans	1.619	0.546	4.804	0.385
Professional/Civil Servant	0.869	0.219	3.448	0.842
Unemployed/housewife/student	1			