



RISK PERCEPTION OF COVID-19 AMONG ADULTS IN JALINGO, TARABA STATE, NIGERIA

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Abstract

This community-based cross-sectional study aimed to determine the risk perception of COVID-19 among adults in Jalingo. The study involved 420 consenting adults. A self-structured questionnaire with a reliability coefficient of 0.86 (Cronbach's Alpha) was used for data collection. A pilot study was conducted using 20 of the participants. The questionnaires were administered by hand and collected on the spot. The information obtained was analysed using descriptive statistics and presented in tables and figures, while the differences between variables were tested using the Chi-square test at a 0.05 level of significance and a 95% confidence interval. The results revealed that the variables with the highest percentages of participants who strongly agreed with the statement "COVID-19 is a severe disease" were: 101 (54.5%) males, 43 (55.8%) in the 26–35 age group, 153 (60%) employed, and 10 (71.4%) secondary school leavers. For the statement "COVID-19 prevents regular association," 89 (48.1%) males, 11 (57.9%) aged 46–55, 134 (52.5%) employed, and 111 (57.8%) participants with no formal education (NFE) strongly agreed. Regarding the statement "I may likely get COVID-19 in the course of the pandemic," 104 (44.3%) males, 47 (62%) in the 26–35 age group, 134 (52.5%) employed, and 114 participants with no formal education strongly agreed. For the statement "There is a chance that my close relative may contract COVID-19," 111 (60%) males, 63 (81.8%) aged 26–35, 153 (60%) employed, and 114 (59.4%) with no formal education strongly agreed. Lastly, 97 (52.4%) males, 43 (55.8%) in the 26–35 age group, 134 (52.5%) employed, and 113 (58.9%) participants with no formal education strongly agreed with the statement that "COVID-19 will affect many Nigerians." In conclusion, gender, age, employment status, and educational level influenced the risk perception of COVID-19. It is therefore recommended that more public enlightenment is needed to enable the population to have an accurate perception of the risks associated with COVID-19.

Keywords: Age, COVID-19, Employment status, Gender, Influence, Risk Perception

Introduction

COVID-19 is still with us despite all the preventive measures recommended by the World Health Organization (WHO) and implemented by various countries of the world, including Nigeria. Several measures have been instituted by the Federal Government of Nigeria through the Presidential Task Force (PTF) on COVID-19, together with the Federal Ministry of Health, to curtail the spread of the disease and protect the health of Nigerians. These measures included the initial lockdown of non-essential activities, closure of schools, and a ban on international flights, among others (NCDC, 2023). Also, the COVID-19 vaccine is now available, yet the disease remains in our midst. According to Statista Research Department (2022), the total number of COVID-19 cases in Nigeria was 262,402 as of August 10, 2022, while the number of active cases was approximately 3.2 thousand. However, more than 5.4 million people had been tested.

So, why is COVID-19 still here? Is it that Nigerians are not making themselves available for testing, or that those infected are not presenting themselves for treatment? What about the vaccine — is it acceptable to the people? What percentage of the population has accepted it? All these questions have their answers in the risk perception of the disease, COVID-19. Risk perceptions are beliefs about the possibilities of harm or loss. It is a subjective judgment about the characteristics and severity of a risk (Darker, 2013). Paek and Hove (2017) defined risk perception as people's subjective judgments about the chances or possibilities of negative occurrences such as injury, illness, disease, and death.

According to Paek and Hove (2017), risk perception has two main dimensions: The cognitive dimension, which relates to how much people know about and understand risks, and the emotional dimension, which relates to how they feel about the risk. Similarly, Darker (2013) stated that risk perception can be viewed in three dimensions: Perceived likelihood — the probability that one will be harmed by a hazard, perceived susceptibility — an individual's constitutional vulnerability to a hazard, and perceived severity — the extent of harm a hazard would cause. A common assumption in risk perception research is that there is an association between people's knowledge and certainty about a risk and how they perceive it. Risk perceptions are important precursors to health-related behaviours and other behaviours that experts recommend for either dealing with or preventing risks (Paek & Hove, 2017).

The Health Belief Model (HBM) shows that individual beliefs about risks can be influenced by different modifying factors, such as sociodemographic and sociopsychological variables. To perceive risk includes evaluations of both the probability and the consequences of an uncertain outcome (Darker, 2013). Sociodemographic factors such as gender, education, and employment are believed to influence risk perception (Akorede et al., 2022; Rosi et al., 2021; Bruine de Bruin, 2020; Dryhurst et al., 2020) as well as preventive practices during pandemics (Carlucci et al., 2020). The study of risk perception is now a necessity since beliefs, knowledge, values, and attitudes are recognised as influencing not only decisions but also behaviours (Akorede & Aliyu, 2021; Cori et al., 2020). What seems possible today is to try to understand public reactions by applying

established theories of risk perception research to COVID-19 and reflecting on how this knowledge can be utilised to improve health risk communication, build trust, and contribute to collaborative governance (Cori et al., 2020). Accurate public risk perceptions are critical to effectively managing public health risks (Dryhurst, 2020).

Understanding COVID-19 risk perception may help inform public health messaging aimed at encouraging preventive measures and improving countermeasures against the pandemic (Adachi et al., 2022; Akorede, 2021; Akorede et al., 2021). Also, acceptance of the vaccine is closely linked to the perception of the disease (Akorede et al., 2022). In a report by Ihenacho (2022), there was an association between the perception of COVID-19 and acceptance of the COVID-19 vaccine. He reported that a high-risk perception of COVID-19 was found in over half of the respondents, and the COVID-19 vaccine acceptance rate was a little more than 50%. Similarly, Quin et al. (2022) reported that 88.46% of child caregivers were willing to have a booster dose of the COVID-19 vaccine administered to their children, and the acceptance was closely associated with a higher level of perceived susceptibility and perceived benefit.

COVID 19

COVID-19 was characterised as a pandemic in March 2020 (WHO, 2020) as it crossed the shores of China — the country where it was first reported in a town called Wuhan (WHO, 2022; WHO, 2020) — and began ravaging various countries around the world. Before then, on January 30, 2020, the WHO had declared the disease a Public Health Emergency of International Concern (PHEIC) based on the recommendations of the 15-member International Health Regulations Emergency Committee (EC) (Jee, 2020). COVID-19 is caused by the virus SARS-CoV-2. SARS-CoV-2 is a coronavirus belonging to the family Coronaviridae. Coronaviruses are minute in size (65–125 nm in diameter) and contain single-stranded RNA as their nucleic material, with a genome size ranging from 26 to 32 kilobases (kb) in length. It is a novel coronavirus, known for the first time to be pathogenic to humans, and the first coronavirus to have caused a pandemic. The virus can be spread by inhalation of tiny droplets containing the virus or by touching contaminated surfaces (fomites) and then touching one's own nose, mouth, or eyes (CDC, 2022). A lot of measures were instituted to curtail the spread of the disease in Nigeria. Such measures included the lockdown of non-essential activities, closure of schools, and a ban on international flights.

Nigeria, like many other countries, later commenced the gradual easing of lockdown measures initially instituted at the beginning of the COVID-19 pandemic. This was aimed at balancing the need to preserve lives and livelihoods while addressing the socio-economic disruptions caused by the outbreak (Idris et al., 2022; Muanya, 2022). According to a report by Muanya of The Guardian Newspaper (December 2022), President Muhammadu Buhari approved the immediate relaxation of COVID-19 safety measures following the recommendations of the Presidential Steering Committee on COVID-19. However, the elderly, the immunocompromised, and those with comorbidities were advised to continue practising COVID-19 preventive measures (Muanya, 2022). The general public was also encouraged to take their COVID-19 vaccinations as well as booster doses.

Though there has been a relaxation of COVID-19 safety measures, it does not mean that the disease has been eliminated — it is still present among us. A report from the NCDC (2023) revealed that from 24th to 30th December 2022, 35 new confirmed cases were recorded in Nigeria. So far, 266,450 cases have been confirmed, 259,841 cases discharged, and 3,155 deaths recorded across 36 states and the Federal Capital Territory. The 35 new cases were reported from four states — FCT (22), Lagos (10), Delta (2), and Plateau (1). Therefore, there is a need to find out the perception of adults in Jalingo regarding COVID-19.

Methodology

This community-based cross-sectional study utilised a self-structured questionnaire, self-administered to 420 adults aged 18–55 years residing in Jalingo. The study was conducted between June and November 2022. The research instrument was validated, and a reliability coefficient of 0.86 (Cronbach's Alpha) was obtained. Following the informed consent of the respondents, data were collected and analysed using descriptive statistics (frequencies and percentages), while inferential statistics (Chi-square) were used to determine the relationship between variables at a 0.05 level of significance and a 95% confidence interval. The Statistical Package for the Social Sciences (SPSS) version 21 was utilised for the analysis.

Results and Discussions

Demographic characteristics of respondents

The study comprised 235 (56.0%) females and 185 (44.0%) males. Three hundred and twelve (74.3%) participants were in the age group 18–25 years, 77 (18.3%) were within 26–35 years, 12 (2.9%) were within 36–45 years, and 19 (4.5%) were between 46–55 years. Nevertheless, 29 (6.9%), 175 (41.7%), 208 (49.5%), and 8 (1.9%) of the participants were single, widowed, divorced, and separated, respectively. Two hundred and fifty-five (60.7%), 155 (36.9%), and 10 (2.1%) of the participants were employed, unemployed, and students, respectively. However, 192 (45.7%), 205 (48.8%), 14 (3.3%), and 9 (2.1%) of the participants had no formal education, primary, secondary, and tertiary education, respectively, as presented in Table 1 below.

Table 1: Demography of the respondents

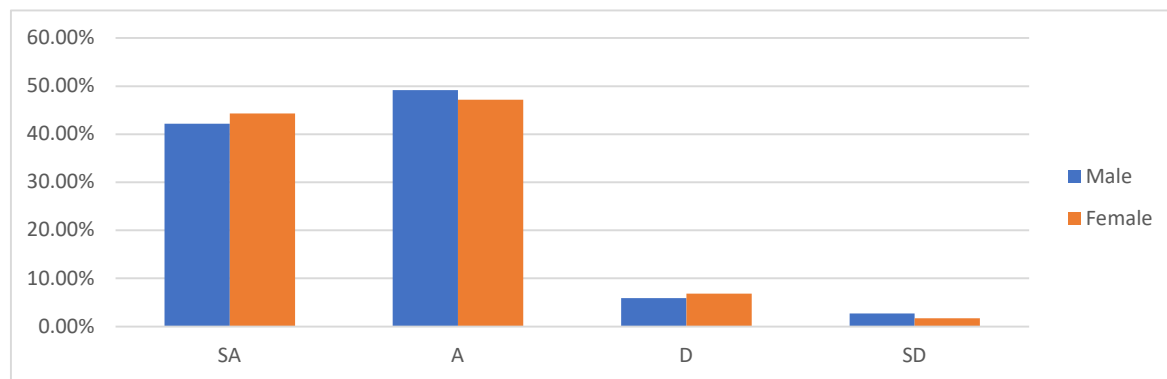
Variable	Options	Frequency	Percentage
Gender	Male	185	44.0
	Female	235	56.0
	Total	420	100.0
Age	18 - 25 years	312	74.3
	26 - 35 years	77	18.3
	36 - 45 years	12	2.9
	46 - 55 years	19	4.5
	Total	420	100.0
Marital status	Single	29	6.9
	Widowed	175	41.7
	Divorced	208	49.5
	Separated	8	1.9
	Total	420	100.0
Employment status	Employed	255	60.7
	Unemployed	155	36.9
	Student	10	2.4
	Total	420	100.0
Highest Educational Qualification	None	192	45.7
	Primary	205	48.8
	Secondary	14	3.3
	Tertiary	9	2.1
	Total	420	100.0

Research Question 1:What is the risk perception of COVID-19 among male and female adults in Jalingo?

The result obtained from this study reveals that more than half of the respondents strongly agreed with the statements in Table 2 while a little above one-third of the females strongly agreed(Figure 2) which revealed that there was a higher risk perception of COVID 19 among males than females and this could be because men are usually more influenced by anticipatory emotions(i.e.arising from considering consequences).In addition, males are more conversant with social media than females, and there is a popular saying that “It is what man knows that kills man. In other words, the information they get from social media, some of which is not true, contributed to increasing their risk perception of the disease. The result of this study agrees with the report by Iorfa *et al.* (2020 that risk perception of COVID-19 is gender sensitive.

Table 2: Gender and the Risk Perception of COVID-19 among Adults in Jalingo

	Gender		SA	A	D	SD	P-value
COVID-19 is a Severe Disease	Male	Freq.	101	78	5	1	0.000
		Percent.	54.6	42.2	2.7	0.5	
	Female	Freq.	88	142	0	5	
		Percent.	37.4	60.4	0	2.1	
	Total	Freq.	189	220	5	6	
		Percent.	45	52.4	1.2	1.4	
COVID-19 prevents regular Association	Male	Freq.	89	90	3	3	0.852
		Percent.	48.1	48.6	1.6	1.6	
	Female	Freq.	109	123	3	0	
		Percent.	46.4	52.3	1.3	0	
	Total	Freq.	198	213	6	3	
		Percent.	47.1	50.7	1.4	0	
I may likely get COVID-19 in the course of the Pandemic	Male	Freq.	78	91	11	5	0.049
		Percent.	42.2	49.2	5.9	2.7	
	Female	Freq.	104	111	16	4	
		Percent.	44.3	47.2	6.8	1.7	
	Total	Freq.	182	202	27	9	
		Percent.	43.3	48.1	6.4	2.1	
There's a chance that my close relative may contract COVID-19.	Male	Freq.	111	69	2	3	0.000
		Percent.	60	37.3	1.1	1.6	
	Female	Freq.	115	109	9	2	
		Percent.	48.9	46.4	3.8	9	
	Total	Freq.	226	178	11	5	
		Percent.	53.8	42.4	2.6	1.2	
COVID-19 will affect many Nigerians	Male	Freq.	97	77	5	6	0.000
		Percent.	52.4	41.6	2.7	3.2	
	Female	Freq.	75	147	9	4	
		Percent.	31.9	62.6	3.8	1.7	
	Total	Freq.	172	224	14	10	
		Percent.	41	53.3	3.3	2.4	


Figure 2: The Influence of Gender on the Risk perception of covid-19 among Adults in Jalingo
Research Question 2: What is the risk perception of COVID-19 among adults of various age groups in Jalingo?

With regard to the risk perception of COVID-19 among adults of various age groups in Jalingo, the results revealed that three-quarters (75%) of the participants in the age group 36–45 strongly agreed with the statements in Table 3. However, more than half (55.8%), 41.3%, and 42.1% of the age groups 18–25, 36–45, and 46–55, respectively, also strongly agreed (Figure 2). This shows that the highest risk perception of COVID-19 was among the age group 36–45, which could probably be because this age group is usually very vibrant and, therefore, subjects itself to a lot of stress. Stress has been shown to lead to higher perceived risk (Sobkow et al., 2016). Moreover, this particular age group often receives information from multiple sources, and it is also believed that knowledge is positively related to risk perception. Afocha et al. (2021) observed that there is a

statistically significant relationship between the age of respondents and their level of knowledge. Therefore, it is most probable that the knowledge level of this age group, as well as the stress they subject themselves to, contributed to their higher risk perception.

The results obtained in this study agree with the report by Iorfa et al. (2020), which stated that the risk perception of COVID-19 is age-dependent. However, while Iorfa et al. reported that the elderly (age not specified) had the highest risk perception, this study observed that it was the 36–45 age group. The difference could be attributed to the fact that this study's findings were based on self-reported responses to questionnaire items, whereas Iorfa et al. (2020) based their conclusions on observed precautionary behaviours. Similarly, Rosi et al. (2021), in a study on age-related differences in risk perception during the COVID-19 outbreak, found that the perceived risk of contracting COVID-19 tends to decrease as age increases. Bruine de Bruin (2020) also reported that older people had a lower risk perception.

Table 3: The Risk Perception of COVID-19 among adults of various age groups in Jalingo

	Age		SA	A	D	SD	P
COVID-19 is a severe disease	18-25	Freq.	129	173	2	6	0.000
		Percent.	41.3	36.1	0.6	1.9	
	26-35	Freq.	43	33	1	0	
		Percent.	55.8	42.9	1.3	0	
	36-45	Freq.	9	1	2	0	
		Percent.	75	8.3	16.7	0	
	46-55	Freq.	8	11	0	0	
		Percent.	42.1	37.9	0	0	
	Total	Freq.	189	220	3	6	
		Percent.	45	32.4	1.2	1.4	
COVID-19 prevents regular Association	18-25	Freq.	140	164	5	3	0.729
		Percent.	44.9	52.6	1.6	1	
	26-35	Freq.	43	33	1	0	
		Percent.	55.8	42.9	1.3	0	
	36-45	Freq.	4	8	0	0	
		Percent.	33.3	66.7	0	0	
	46-55	Freq.	11	8	0	0	
		Percent.	57.9	42.1	0	0	
	Total	Freq.	198	213	6	3	
		Percent.	47.1	50.7	1.4	0.7	
I may likely get COVID-19 in the course of the Pandemic	18-25	Freq.	122	162	21	7	0.000
		Percent.	39.1	51.9	6.7	2.2	
	26-35	Freq.	47	27	3	0	
		Percent.	62	33.1	3.9	0	
	35-45	Freq.	5	2	3	2	
		Percent.	41.7	16.7	25	16.7	
	45-55	Freq.	8	11	0	0	
		Percent.	42.1	57.9	0	0	
	Total	Freq.	182	202	9	9	
		Percent.	43.3	48.1	6.4	2.1	
There's a chance that my close relative may contract COVID-19	18-25	Freq.	153	149	7	3	0.000
		Percent.	49	47.8	2.2	1	
	26-35	Freq.	63	13	1	0	

COVID-19 will affect many Nigerians	35-45	Percent.	81.8	16.9	1.3	0	0.000
		Freq.	3	5	2	2	
		Percent.	25	41.7	16.7	16.7	
		Freq.	7	11	1	0	
	45-55	Percent.	36.8	41.7	5.3	0	
		Freq.	226	178	11	5	
	Total	Percent.	53.8	42.4	2.6	1.2	
		Freq.	123	172	9	8	
	18-25	Percent.	39.4	55.1	2.9	2.6	
		Freq.	43	33	1	0	
	25-35	Percent.	55.8	42.9	1.3	0	
		Freq.	3	5	2	2	
	36-45	Percent.	25	41.7	16.7	16.7	
		Freq.	3	14	2	0	
	45-55	Percent.	15.8	73.7	10.5	0	
		Freq.	172	224	14	10	
	Total	Percent.	41	53.3	3.3	2.4	

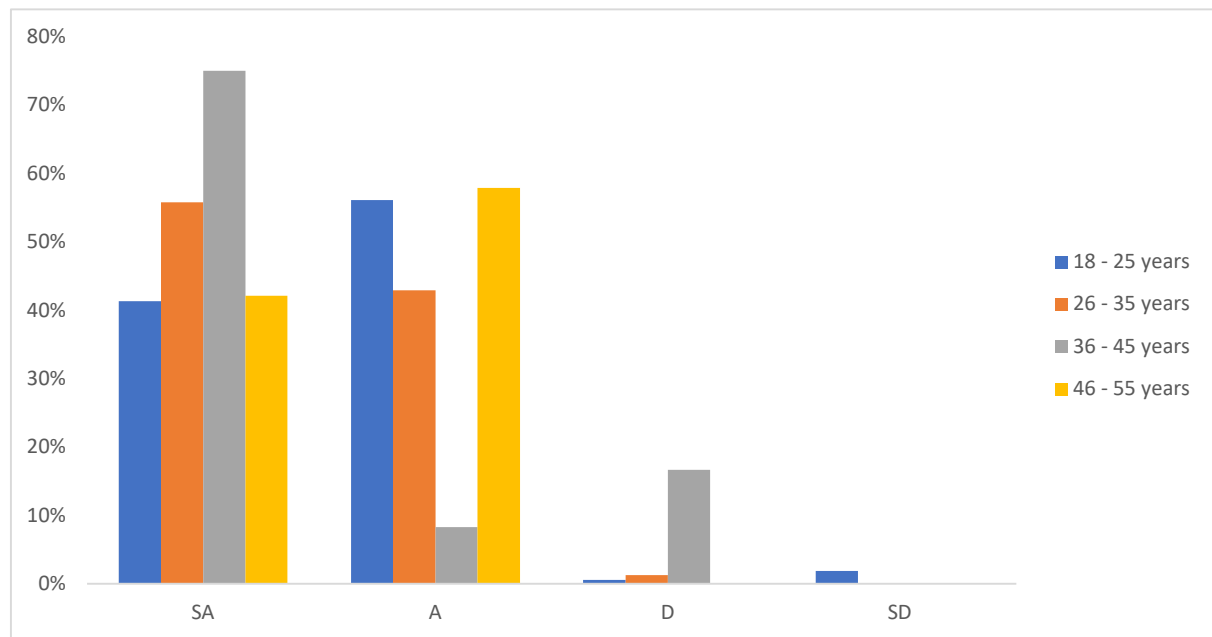


Figure 2: The Influence of Age on the Risk Perception of COVID-19 among Adults in Jalingo

Research Question 3: What is the risk perception of adults in Jalingo who are employed, unemployed, and students regarding COVID-19?

Concerning the influence of employment status on the risk perception of COVID-19, the results obtained revealed that 60%, 21.9%, and 20% of the employed, unemployed, and students respectively (Figure 3) strongly agreed with the statements in Table 4, while 80%, 76.1%, and 36.9% of the students, unemployed, and employed respectively agreed. This shows that the majority of the employed perceived COVID-19 with a lot of fear. This could be because they believed that their jobs, in one way or another, exposed them to infection with COVID-19. They were also worried about their dependents contracting the disease. However, Reed-Thryselius (2022) reported that those with higher income have a higher risk perception. Since higher income is often associated with employment status, this aligns with the findings of this study. The higher-income earners (the employed) exhibited higher risk perception, while the unemployed and students, who generally have lower income, showed lower perception of risk. Thus, the findings of this study support the report of Reed-Thryselius (2022) by revealing that the employed participants had a higher risk perception of COVID-19.

able 4:The Risk Perception of COVID-19 among adults in Jalingo who are employed, unemployed, and students

	Employment Status		SA	A	D	SD	P-value
COVID-19 is a Severe Disease	Employed	Freq.	153	94	5	3	0.00
		Percent.	60	36.9	2	1.2	
	Unemploye	Freq.	34	118	0	3	
		Percent.	21.9	76.1	0	1.9	
	Student	Freq.	2	8	0	0	
		Percent.	20	80	0	0	
	Total	Freq.	189	220	5	6	
		Percent.	45	52.4	1.2	1.4	
COVID-19 prevents regular Association	Employed	Freq.	133	116	3	3	0.00
		Percent.	52.2	45.5	1.2	1.2	
	Unemployed	Freq.	65	90	0	0	
		Percent.	41.9	58.1	0	0	
	Student	Freq.	0	7	3	0	
		Percent.	0	70	30	0	
	Total	Freq.	198	213	6	3	
		Percent.	47.1	50.7	1.4	0.7	
I may likely get COVID-19 in the course of the Pandemic	Employed	Freq.	134	102	12	7	0.00
		Percent.	52.5	40	4.7	2.7	
	Unemploye	Freq.	46	96	11	2	
		Percent.	29.7	61.9	7.1	1.3	
	Student	Freq.	2	4	4	0	
		Percent.	20	40	40	0	
	Total	Freq.	182	202	27	9	
		Percent.	43.3	48.1	6.4	2.1	
There's a chance that my close relative may contract COVID-19	Employed	Freq.	153	93	6	3	0.00
		Percent.	60	36.5	2.4	1.2	
	Unemploye	Freq.	70	80	3	2	
		Percent.	45.2	51.6	1.9	1.3	
	Student	Freq.	3	5	2	0	
		Percent.	30	50	20	o	
	Total	Freq.	226	178	11	5	
		Percent.	53.8S	42.4	2.6	1.2	
COVID-19 will affect many Nigerians	Employed	Freq.	134	111	5	5	0.00
		Percent.	52.5	43.5	2	2	
	Unemploye	Freq.	38	104	8	5	
		Percent.	24.5	67.1	5.2	3.2	
	Student	Freq.	0	9	1	0	
		Percent.	0	90	10	0	

Total	Freq.	172	224	14	10
	Percent.	41	53.3	3.3	2.4

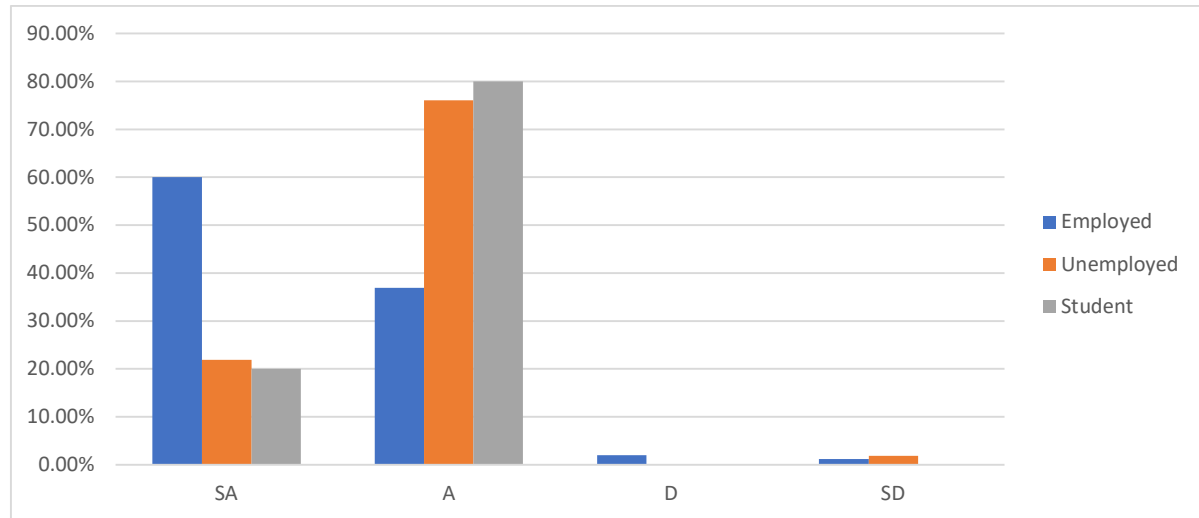


Figure 3: The Influence of Employment Status on the Risk Perception of COVID-19 among the Adults in Jalingo

Research Question 4: What is the risk perception of COVID-19 among adults of various educational levels?

Concerning the risk perception of COVID-19 among adults of different educational levels, the responses obtained indicate that 68.8%, 21.5%, 71.4%, and 33.3%, respectively, of those who had no formal education, primary, secondary, and tertiary education, strongly agreed (Figure 4) with the statements in Table 5. This shows that the highest risk perception was among the secondary school leavers, followed by those who had no formal education. However, the 71.4% of secondary school leavers represent a smaller proportion of the participants compared to the number of people who had no formal education. Adults who had a tertiary education perceived COVID-19 with fear but not with a great deal of fear, as they are aware that COVID-19 can be prevented. Moreover, adults with higher education are more likely to have access to accurate and up-to-date information. This study agrees with Rattay et al. (2021) in reporting a relationship between educational level and risk perception. It also aligns with their findings that there is an association between low education level and higher perceived severity of COVID-19.

Table 5: The risk perception of COVID-19 among adults of various educational levels

Educational Level		SA	A	D	SD	P-value
COVID-19 is a severe Disease	None	Freq. 132	55	2	3	0.000
		Percent. 68.8	28.6	1	1.6	
	Primary	Freq. 44	156	3	2	
		Percent. 21.5	76.1	1.5	1	
	Secondary	Freq. 10	3	0	1	
		Percent. 71.4	21.4	0	7.1	
	Tertiary	Freq. 3	6	0	0	
		Percent. 33.3	66.7	0	0	
	Total	Freq. 189	220	5	6	
		Percent. 45	52.4	1.2	1.4	
COVID-19 prevents regular Association	None	Freq. 111	78	2	1	0.000
		Percent. 57.8	40.6	1	5	
	Primary	Freq. 83	118	2	2	
		Percent. 40.5	57.6	1	1	

	Secondary	Freq.	4	10	0	0	
		Percent.	28.6	71.4	0	0	
	Tertiary	Freq.	0	7	2	0	
		Percent.	0	77.8	22.2	0	
	Total	Freq.	198	213	6	8	
		Percent.	47.1	50.7	1.4	0.2	
I may likely get COVID-19 19 in the course of the Pandemic	None	Freq.	104	75	8	6	0.000
		Percent.	54.2	39.1	4.2	2.6	
	Primary	Freq.	71	118	15	1	
		Percent.	34.6	57.6	7.3	5	
	Secondary	Freq.	5	3	2	2	
		Percent.	35.7	35.7	14.3	14	
	Tertiary	Freq.	2	4	2	11	
		Percent.	22.2	44.4	22.2	9	
	Total	Freq.	182	202	27	2.1	
		Percent.	43.3	48.1	64	1	
There's a chance that my close relative may contract COVID-19	None	Freq.	114	74	34	5	0.000
		Percent.	59.4	38.5	1.6	1	
	Primary	Freq.	108	91	5	1	
		Percent.	52.7	44.4	2.4	5	
	Secondary	Freq.	2	9	1	2	
		Percent.	14.3	64.3	7.1	14	
	Tertiary	Freq.	2	4	2	1	
		Percent.	22.2	44.4	22.2	11	
	Total	Freq.	226	178	11	5	
		Percent.	53.8	42.4	2.6	1.3	
COVID-19 will affect many Nigerians	None	Freq.	113	66	8	5	0.000
		Percent.	58.9	34.4	4.2	2.6	
	Primary	Freq.	59	140	4	2	
		Percent.	28	68.3	2	1	
	Secondary	Freq.	0	10	2	2	
		Percent.	0	71.4	14.3	14	
	Tertiary	Freq.	0	8	0	1	
		Percent.	0	88.9	0	11	
	Total	Freq.	172	2.24	14	10	
		Percent.	41	53.3	3.3	2.4	

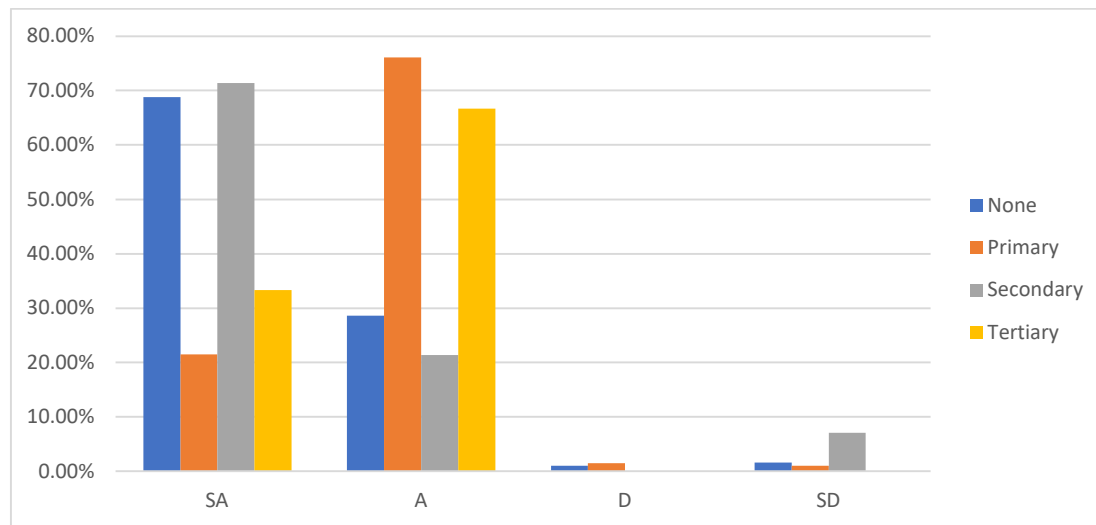


Figure 4: The Influence of Education on the risk perception of covid-19 among adults in Jalingo

Conclusion

This study concludes that most male adults had a higher risk perception of COVID-19 than females. They also believed that a close relative of theirs might contract COVID-19. However, the age group 26–35 years had the highest risk perception of COVID-19 compared to other age groups. They strongly agreed that COVID-19 is a severe disease and that they are very much afraid of contracting it. Likewise, the employed had a higher risk perception of COVID-19 compared to students and the unemployed; they perceived COVID-19 as a severe disease. Similarly, many secondary school leavers and those with no formal education strongly agreed that COVID-19 is a severe disease.

Recommendations

It is therefore recommended that male adults be made to understand that their wives, children, fiancées, and other relatives are less likely to contract COVID-19 if they observe social distancing and practice regular and proper handwashing. In the same vein, individuals within the age group 26–35 years need to be assured that observing the preventive measures against COVID-19 will greatly reduce their chances of infection. The employed should be enlightened that COVID-19 is not a death sentence; it can be effectively managed, and vaccines are available for protection. Furthermore, secondary school leavers and those with no formal education need more enlightenment and accurate information about COVID-19. Overall, COVID-19 vaccines should be made readily available to everyone, and the general public should be further educated to ensure accurate risk perception and proper preventive practices against the disease.

References

- Adachi, M., Murakami, M., Yoneoka, D., Kawashima, T., Hashizume, M., Sakamoto, H., *et al.* (2022). Factors associated with the risk perception of COVID-19 infection and severe illness: A cross-sectional study in Japan. *SSM Public Health*, 18. Available from <https://www.sciencedirect.com/science/article/pii/S2352827322000842>
- Afocha, E., Oladele, D. A., & Ajibaye, O. (2021). Knowledge and perception of the risk of contracting coronavirus disease 2019 (COVID-19) among adult Nigerians. *International Journal of Health Sciences and Research*, 11(11), 233–243. <https://doi.org/10.52403/ijhsr.20211128>
- Akorede, S. N. (2021). COVID-19 lockdown and domestic violence among partners in Nigeria. *Kampala International University Interdisciplinary Journal of Humanities and Social Sciences*, 2(2), 38–47.
- Akorede, S. N., Akorede, A. A., Isiaq, A. T., & Yusuf I. S. (2022). Influence of demographic characteristics on family planning adoption among females in Samaru, Kaduna State. *Kampala International University Interdisciplinary Journal of Social Science and Humanities*, 3(1), 1–12. <http://dx.doi.org/10.59568/KIJHUS-2022-3-1-01>
- Akorede, S. N., & Aliyu, M. (2021). Psychological Impact of Integrated payroll and personnel Information System (IPPIS) on Federal Higher Institution Staff in Nigeria in the midst of COVID-19. *Ilorin Journal of Health Promotion and Environmental Health Education*, 7(1), 48–59
- Akorede, S. N., Ajayi, A., Toyin, A., & Uwadia, G. (2021). Influence of COVID-19 on the psychological wellbeing of tertiary institution students in Nigeria. *Tanzania Journal of Science*, 47(1), 70–79.
- Akorede, S. N., Garba, I., & Usman, U. (2022). Acceptance of Covid19 Vaccine among Staff of Federal College of Education, Katsina. *ABSU Journal of Educational Studies*, 9(3), 1–5.

- Bruine de Bruin, W. (2021). Age differences in COVID-19 risk perceptions and mental health: Evidence from a national U.S. survey conducted in March 2020. *Journal of Gerontology: Series B, Psychological Sciences and Social Sciences*, 76(2), e24–e29. <https://doi.org/10.1093/geronb/gbaa074>
- Carlucci, L., D'Ambrosio, I., & Balsamo, M. (2020). Demographic and attitudinal factors of adherence to quarantine guidelines during COVID-19: The Italian model. *Frontiers in Psychology*, 11, 559288. <https://doi.org/10.3389/fpsyg.2020.559288>
- Centers for Disease Control and Prevention (CDC). (2022). *COVID-19 symptoms*. <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
- Cori, L., Bianchi, F., Cadum, E., & Anthonj, C. (2020). Risk perception and COVID-19. *International Journal of Environmental Research and Public Health*, 17(9), 3114. <https://doi.org/10.3390/ijerph17093114>
- Darker, C. (2013). Risk perception. In M. D. Gellman & J. R. Turner (Eds.), *Encyclopedia of Behavioral Medicine*. Springer, New York, NY. https://doi.org/10.1007/978-1-4419-1005-9_866
- Dryhurst, S., Schneider, C. R., Kerr, J., Alexandra, L. J., Freeman, G. R., Recchia, G., van der Bles, A. M., Spiegelhalter, D., & van der Linden, S. (2020). Risk perceptions of COVID-19 around the world. *Journal of Risk Research*, 23(7–8), 994–1006. <https://doi.org/10.1080/13669877.2020.1758193>
- Idris, S. Y., Akorede, A. A., & Isiaq, A. T. (2022). Assessment of knowledge and practice of COVID-19 prevention strategies among Secondary School Students in Samaru, Zaria. *Global Journal of Health Related Researches*, 4(1), 16–23.
- Iheanacho, C. O., Enechukwu, O. H., & Aguiyi-Ikeanyi, C. N. (2022). Risk perception and acceptability of the COVID-19 vaccine in Nigeria. *Turkish Journal of Pharmaceutical Sciences*, 19(6), 686–693.
- Iorfa, S. K., Ottu, I. F. A., Oguntayo, R., Ayandele, O., Kolawole, S. O., Gandi, G. C., Dangiwa, A. L., & Olapegba, P. O. (2020). COVID-19 knowledge, risk perception and precautionary behaviour among Nigerians: A moderated mediation approach. *medRxiv*. <https://doi.org/10.1101/2020.05.20.20104786>
- Jee, Y. (2020). WHO International Health Regulations Emergency Committee for the COVID-19 outbreak. *Epidemiology and Health*. <https://doi.org/10.4178/epih.e2020013>. Available from <https://pubmed.ncbi.nlm.nih.gov/32192278/>
- Muanya, C. (2022). Buhari approves relaxation of COVID-19 safety measures. *The Nigerian Guardian Newspaper*. <https://guardian.ng/news/buhari-approves-relaxation-of-covid-19-safety-measures/>
- Nigeria Centre for Disease Control (NCDC). (2023). *COVID-19 Nigeria*. Available from <https://covid19.ncdc.gov.ng/>
- Paek, H., & Hove, T. (2017). Risk perceptions and risk characteristics. *Oxford Research Encyclopedia of Communication*. <https://doi.org/10.1093/acrefore/9780190228613.013.283>
- Qin, C., Wang, B., Tao, L., Liu, M., & Liu, J. (2022). Association between risk perception and acceptance for a booster dose of COVID-19 vaccine to children among child caregivers in China. *Frontiers in Public Health*. <https://doi.org/10.3389/fpubh.2022.834572>
- Rattay, P., Michalski, N., Domanska, O. M., Kaltasser, A., Bock, F., Wieler, H. L., & Jordan, S. (2021). Differences in risk perception, knowledge, and protective behaviour regarding COVID-19 by education level among women and men in Germany: Results from the COVID-19 Snapshot Monitoring (COSMO) study. *PLoS One*, 16(5), e0251694. <https://doi.org/10.1371/journal.pone.0251694>
- Reed-Thryselius, S., Fuss, L., & Rausch, D. (2022). The relationships between socioeconomic status, COVID-19 risk perceptions, and the adoption of protective measures in a Midwestern city in the United States. *Journal of Community Health*, 47, 464–474. <https://doi.org/10.1007/s10900-022-01070-y>
- Renner, B., Schupp, H., Vollmann, M., Hartung, F.-M., Schmälzle, R., & Panzer, M. (2008). Risk perception, risk communication, and health behaviour change. *Zeitschrift für Gesundheitswissenschaften*, 16, 150–153.
- Rosi, A., van Vugt, F. T., Lecce, S., Ceccato, I., Vallarino, M., Rapisarda, F., Vecchi, T., & Cavallini, E. (2021). Risk perception in a real-world situation (COVID-19): How it changes from 18 to 87 years old. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2021.646558>
- Sobkow, A., Traczyk, J., & Zaleskiewicz, T. (2016). The affective bases of risk perception: Negative feelings and stress mediate the relationship between mental imagery and risk perception. *Frontiers in Psychology*, 7, 932. <https://doi.org/10.3389/fpsyg.2016.00932>
- Statista Research Department. (2022). Cumulative number of confirmed coronavirus cases (COVID-19) in Nigeria <https://www.statista.com/statistics/1122637/coronavirus-cases-in-nigeria-by-status/>
- World Health Organization (WHO). (2020). Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- World Health Organization (WHO). (2022). *Coronavirus disease (COVID-19)*. [https://www.who.int/bangladesh/emergencies/coronavirus-disease-\(covid-19\)](https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19))