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Original Article

Age-Related Differences on Psychological Distress Levels and Coping Strategies Due to COVID-19 among Nairobi Residents

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ABSTRACT

The study sought to establish whether there are age differences in the coping strategies and psychological distress levels among Nairobi Residents due to the COVID-19 pandemic. This was necessitated by a paucity of scholarly studies that have examined age differences in psychological coping strategies and levels of distress due to the pandemic. Two tools of assessment were used for data collection; the Brief Cope inventory and the COVID-19 Related Psychological Distress (CORPD) for healthy people. An ex post facto research design was used to survey 356 Nairobi residents. Data were analyzed through the application of descriptive statistics and inferential analysis. The results show that there were significant statistical differences between age and psychological coping strategies (p-value=.001) but no significant statistical differences between age and psychological distress levels (p-value=.514). The study thus recommends that the residents of Nairobi be educated on active coping strategies, self-distraction, planning and venting to enable them to reduce psychological distress that may accrue out of the fear, anxiety, and suspicion related to the COVID-19 pandemic.

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INTRODUCTION

According to WHO (2020), fear, worry, and stress are normal responses to perceived or real threats, especially when humans are faced with uncertainty. It is therefore normal and understandable that people are experiencing fear in the context of the COVID-19 response. In addition to the fear of contracting the virus in a pandemic such as COVID-19 are the significant changes in people's daily lives, which have come with challenges like keeping social and physical distance and also psychological distress associated with these changes (Yu et al., 2020). Mental health has been severely affected by the COVID-19 infection owing to fear of the pandemic (WHO, 2020). Various psychological coping strategies have been employed in different parts of the world by individuals and groups. This has affected the provision of mental health care, human care, psychological crisis control measures, and intervention in COVID-19 (Yu et al., 2020).

Stringent measures to control COVID-19 have been instituted in various countries, including Kenya (Ahmed et al., 2020). These include restricted movement, lockdowns, business and work disruptions, travel restrictions, school closures, and other containment measures. The measures deployed by governments and private sector institutions to contain its spread—lockdowns, quarantines, social distancing, travel bans and restrictions, masking requirements, and shutdowns of non-essential activities have caused severe socioeconomic dislocations in African economies (Anyanwu & Salami, 2021). These measures have a sudden and drastic impact on the economy and subsequently on the workers in developing countries, with an estimated over 70% of their workers in the informal sector (Anyanwu& Salami, 2021). Across Africa, the scenario was bleak.

The health risks cannot be underestimated. The United Nations Economic Commission for Africa (UNECA, 2020) had warned that even with intense social distancing, the continent of 1.3 billion people could see nearly 123 million cases in the year 2020, and 300,000 people could die of the disease. Kenya's informal labourers are estimated at 83.6% (Evans et al., 2020). The pandemic could have an intensive socioeconomic impact on ordinary people as workers. The effects of COVID-19 on the workforce in low-and middle-income countries have been appropriately captured by the International Labour Organization (ILO, 2020). The ILO noted that, although Kenya was a comparatively prosperous country, the economy and health sectors would be weakened as elsewhere in other African countries (Nurunnabi et al., 2020).

Global studies have shown that Americans reported higher general distress in April 2020 compared with April 2018, suggesting that the pandemic was taking a toll on the lives of American citizens (McGinty et al., 2020). Park et al. (2021) documented levels of distress in the United States and also identified the factors associated with distress early in the pandemic. Their study also found that focusing on and engaging in adaptive emotion regulation and coping (like through telehealth and mental health first aid), if targeted for online mental health interventions during the pandemic, could offset the likely rise in psychological distress. To identify these factors, they applied the transactional stress-coping model. According to this model, individuals' psychosocial resources and coping responses influence the impact of stress exposure on distress (Aldwin et al., 2007).

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The number of new weekly COVID-19 studies from China suggested moderate impacts on mental health early in the pandemic (Qiu et al., 2020). For example, although less than one-third of the national sample in China reported elevated depression, anxiety, or stress, 53.8% reported severe post-traumatic stress syndrome (Wang et al., 2020).

On age differences, some researchers have considered age as a factor in how people cope with stressful situations like disease pandemics. Some studies have noted differences between children and adolescents and also older persons. For example, Pearman et al. (2021) looked at age differences in risk and resilience factors in COVID-19-related stress. They found that, although there were no age differences in stress levels, anxiety about developing COVID-19 was however associated with more COVID-19 stress for older adults compared to younger adults, but proactive coping was associated with less COVID-19 stress for older adults relative to younger adults. Blumenthal et al. (2016) in England looked at social anxiety, disengagement coping, and alcohol use behaviours among adolescents. They set out to assess (i) proportional drinking motives (subscale scores divided by the sum of all subscales), (ii) current desire to drink in a socially-relevant environment (introduction to research laboratory), and (iii) the indirect effect of retrospectively-reported disengagement in social stress contexts on proportional coping motives and desire to drink. They found that proclivity toward disengagement in prior socially-stressful contexts accounted for significant variance in the positive relations between Social Anxiety (SA) and both proportional coping motives and the current desire to drink. In terms of the COVID-19 pandemic in Kenya, this study may partially explain the drinking patterns observed in young people during this period which exposed their vulnerability to stress and negative coping through alcohol and other substance abuse.

Despite the daily bulletins from the Ministry of Health on the COVID-19 pandemic in Kenya, a huge number of people in Nairobi streets continued to ignore the advice to observe social distancing, wash hands and wear masks (Ministry of Health (MoH), 2020). The information on the pandemic included the danger posed by the virus resulting in the possible death of the infected individuals. To enhance the seriousness of the matter, at the beginning of the pandemic, police were authorized to arrest and quarantine those found without masks in public places (MoH,2020). A significant part of the Nairobi population did not observe these requirements, while others reluctantly adhered to them requirements. They feared being arrested by police but not the danger posed by COVID-19 disease (MoH, 2020). How people cope with threatening situations like a pandemic could have an effect on the levels of distress experienced by an individual (Nurunnabi et al., 2020; Park et al., 2020; Yu et al., 2020). despite the above-mentioned findings, not many studies have examined whether there are age differences in the psychological coping strategies and levels of distress among residents. This is a significant research gap because such a finding may help to know which ages are more prone to psychological distress and hence the need for the present study.

MATERIALS AND METHODS

The study applied an ex post facto design to survey the study population which comprised individuals aged 15 years and above residing in Nairobi and particularly the Kasarani sub-county. The total population of Kasarani Sub County was estimated to be 780,656 inhabitants with 318,809 females and 307,642 males according to the Kenya Population and Housing Census (KPHC, 2019). The entire population was divided into homogeneous groups called strata. The strata were based on both age and gender as follows: 15-20 years; 21-35 years; 36-50 years; 51-65 years and 65 years and above. The sample size from each stratum was divided equally across the age strata of the total sample size. From each proportion of the strata, simple random sampling was used to obtain the sample size.

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The sample size for the study was determined by Cochran's sample size formula which generated a sample size of 385. However, an additional 15 respondents average (of 6%) of the sample size were included to cover the researchers' error bringing the total to 400. Clark and Mulligan (2011) recommended 15% as an acceptable proportion to cover Researcher's error in health-related studies. However, only 356 respondents gave their full responses.

Data was collected using the Brief Cope Inventory (BCI) used for assessing coping strategies, while the CORPD was used for assessing levels of psychological distress due to COVID-19 in normal people. While developing the CORPD scale, Feng et al. (2020) used the KMO and Bartlett test of sphericity to determine the appropriateness of factor analysis. The result (KMO=0.912, Bartlett significance $P< 0.001$) indicated perfect appropriateness to further conduct the confirmatory factor analysis (Cheng et al., 2020). The Brief Cope Inventory was developed by Charles Carver in 2013 from the original version of 1989, which is longer. The BCI is an abridged form of COPE which is recommended for researchers with time and resource constraints but has been found to be reliable and valid in its assessment.

The statistical tests conducted were descriptive and inferential. The descriptive statistics used included the frequencies, means and standard deviation. The inferential statistics used ANOVA and regression. The quantitative data analysis was done with the aid of SPSS version 23.

RESULTS

Age-Related Differences Psychological Distress and coping strategies

The objective sought to establish whether there were age-related differences in the respondents' coping strategies and psychological distress levels. The results are shown in the ANOVA *Tables 1* and *2*.

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Table 1: Descriptive for age as related to coping strategies and psychological distress

		N	Mean	Std. Dev	Std. Error	95% CIfor Mean		Min	Max	Sig
						Lower Bound	Upper Bound			
Brief Cope Inventory	15-24 years	61	6.16	2.065	.141	2.88	3.45	2	8	.000
	25-34 years	78	6.37	2.333	.120	3.13	3.61	2	8	.002
	35-44 Years	63	5.68	1.709	.096	3.49	3.87	2	8	.000
	45-54 Years	59	4.20	2.168	.139	2.94	3.50	2	8	.213
	55-64 year	50	4.08	2.078	.153	2.67	3.29	2	8	.121
	Over 65 years	45	4.01	2.062	.158	2.59	3.23	2	8	.097
	Total	**356**	**4.25**	**1.047**	**.055**	**3.14**	**3.36**	**2**	**8**	**.002**
CORPD Scale	15-24 years	61	3.02	1.147	.147	2.72	3.31	1	5	.662
	25-34 years	78	2.77	1.161	.131	2.51	3.03	1	5	.261
	35-44 Years	63	3.05	1.263	.159	2.73	3.37	1	5	.117
	45-54 Years	59	2.97	1.299	.169	2.63	3.30	1	5	.432
	55-64 year	50	3.10	1.216	.172	2.75	3.45	1	5	.400
	Over 65 years	45	2.76	1.151	.172	2.41	3.10	1	5	.087
	Total	**356**	**2.94**	**1.206**	**.064**	**2.81**	**3.06**	**1**	**5**	**.206**

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An analysis of the results in Table 1 shows a significant age difference in coping strategies with those between 15-44 years (*p-value=0.00, <0.05*), showing a more significant difference with coping strategies than those aged between 45 and over 65 years (p-value=.213 and .121, *<0.05*). However, there was no significant age difference in psychological distress since the p-values were above 0.05. The result above is reinforced by the average sum ANOVA as shown in *Table 2*.

Table 2: ANOVA Test for Age difference in Coping Strategies and Psychological Distress.

		Sum of Squares	df	Mean Square	F	Sig.
Brief Cope Inventory	Between Groups	22.258	5	4.452	4.245	.001
	Within Groups	366.989	350	1.049		
	Total	389.247	355			
CORPD Scale	Between Groups	6.210	5	1.242	.852	.514
	Within Groups	510.430	350	1.458		
	Total	516.640	355			

There is a statistical difference between age and psychological coping strategies (p-value=.001) but no statistical difference between age and psychological distress (p=.514) (*Table 2*).

DISCUSSIONS

The results show that there is a significant statistical difference between age and psychological coping strategies (p-value=.001), but no significant statistical difference between age and psychological distress (p-value=.514) has some notable relationship with the literature. The literature largely agrees that age differences and especially younger people are associated with coping strategies more than older respondents. Studies on the COVID-19 pandemic reported that the current pandemic has significantly affected the emotional and behavioural experiences of children and adolescents. Depression and anxiety were higher among children and adolescents in other pandemics, specifically COVID-19. The researchers also reported that age, knowledge about COVID-19, degree of worry about epidemiological infection, and confidence about overcoming the outbreak significantly influenced the participants' psychological status.

For example, Blumenthal et al. (2016) in England looked at social anxiety, disengagement coping, and alcohol use behaviours among adolescents. They set out to assess (i) proportional drinking motives (subscale scores divided by the sum of all subscales), (ii) current desire to drink in a socially-relevant environment (introduction to research laboratory), and (iii) the indirect effect of retrospectively-reported disengagement in social stress contexts on proportional coping motives and desire to drink. Level of SA (Social Anxiety), disengagement coping, drinking motives, and desire to drink following laboratory introduction were assessed. They found that proclivity toward disengagement in prior socially-stressful contexts accounted for significant variance in the positive relations between SA and both proportional coping motives and the current desire to drink. In terms of the COVID-19 pandemic in Kenya, this study may partially explain the drinking patterns observed in young people during this period which exposed their vulnerability to stress and negative coping through alcohol and other substance abuse.

Melendez et al. (2012) in their study's first general hypothesis, which stated that problem-focused strategies would be differentially applied across different age groups, found that age group exerted a main effect on coping strategies' use. The results revealed that problem-focused strategies were used with similar levels across the different age groups studied. However, the differences observed between middle-aged and elderly adults were noteworthy in the category of problem-solving focus, where there was a significant decline in old age. This hypothesis also predicted social support-seeking scores would tend to decrease as age increases, and this was equally confirmed in light of this result and in support of a structural view of social support, social support-

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seeking declines considerably in old age. The opposite effect, which was hypothesized in the case of emotion-focused coping, was confirmed as the results showed that the use of emotion-focused strategy increases significantly with age as compared with the middle-aged and young adults in the negative self-focus and religious categories, which are defined as unique to emotion-focused coping. In contrast, the avoidance scores' trend does not confirm the hypothesis set forth. Scores were found to decrease after young adulthood.

There is, however, no study that has looked at age differences associated with psychological distress during the pandemic, and the present study thus fills a significant research gap by determining that there is no statistical difference between age and psychological distress (p-value=.514).

CONCLUSIONS

Based on the main objective on age difference related to coping strategies and psychological distress, there is a significant age difference in coping strategies, where those between 15-44 years show a more significant difference in coping strategies than those aged between 45 and over 65 years. However, there was no significant age difference in psychological distress. The literature largely agrees that age differences and especially younger people are associated with coping strategies more than older respondents. Studies on the COVID-19 pandemic reported that the current pandemic has significantly affected the emotional and behavioural experiences of children and adolescents. Depression and anxiety were higher among children and adolescents in other pandemics, specifically COVID-19. The researchers also reported that age, knowledge about COVID-19, degree of worry about epidemiological infection, and confidence about overcoming the outbreak significantly influenced the participants' psychological status.

The study recommends that the residents of Nairobi should enhance their active, self-distraction, planning and venting coping strategies to enable them to reduce psychological distress that may accrue out of the fear, anxiety and suspicion related to the COVID-19 pandemic. The study further recommends that the residents of Nairobi should be psycho-educated to perceive the COVID-19 pandemic as a challenge and this will lead to the usage of action-oriented or solution-focused psychological coping strategies, which would then lead to adaptive or positive ways of coping like adhering to the MoH protocols. This would also lead to better mental health adjustment or lower levels of psychological distress. The Ministry of Health should ensure that its messaging of COVID-19 measures is clear, unambiguous, and hopeful to ensure that the citizens not only adhere to the measures in an action-oriented manner but also make certain that the citizens would not see the pandemic as a danger but as a challenge which can be surmounted.

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