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**BEHAVIOURAL CHANGES AMONG YOUNG ADULTS IN A POST-
COVID ERA**



UNIVERSITY OF ALGARVE

FACULTY OF ECONOMICS

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**BEHAVIOURAL CHANGES AMONG YOUNG ADULTS IN A POST-COVID
ERA**

Master's Degree in Healthcare Management

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UNIVERSITY OF ALGARVE

FACULTY OF ECONOMICS

2023

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BEHAVIOURAL CHANGES AMONG YOUNG ADULTS IN A POST-COVID ERA

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ABSTRACT

The COVID-19 pandemic has had extensive effects on young adults' behaviours, prompting various control measures like lockdowns, social distancing, and mask-wearing. These measures significantly impacted the behaviour of individuals aged 18-49, leading to adjustments in work, education, mental health, and social interactions. A study focused on young adults in Ghana highlights these changes and proposes recommendations to address the challenges. In Ghana, the pandemic brought about increased loneliness and isolation among young adults due to restrictions on gatherings. The research aimed to bridge gaps in understanding the pandemic's impact on young adults in Ghana by assessing changes in social behaviour, health issues, labour, and financial challenges, as well as coping mechanisms.

The study employed a quantitative approach, utilizing a structured questionnaire distributed via Google Forms. A total of 486 valid responses were analysed using statistical tools such as SPSS. The results show COVID-19 significantly affected young adults' mental well-being, with stress, anxiety, and depression reported by a significant portion of respondents. Breathing problems, a symptom of the virus, also affected many. The study underscored labour and financial hardships, including job losses and academic interruptions. Coping mechanisms ranged from social media utilization to seeking help from local authorities and healthcare services.

Based on these findings, the study proposes authorities should sustain public health awareness campaigns to reinforce positive health-related behaviours, considering the significant impact of COVID-19 on social behaviour. Also, increased mental health support is essential to address the pandemic's impact on young adults' mental well-being. Recognizing social media's significance as a coping mechanism, health authorities and organizations should continue leveraging these platforms to disseminate accurate and timely information on COVID-19 and health-related matters. These can foster resilience and adaptability among young adults, thereby contributing to a more robust post-pandemic society.

Keywords: COVID-19, Young adults, Behavioural changes, Coping mechanisms, Social behaviour

Resumo

O aparecimento da COVID-19 teve um impacto profundo em vários aspectos da vida, incluindo os comportamentos dos jovens adultos. A pandemia levou à aplicação de várias medidas de controlo destinadas a reduzir a sua propagação, como o confinamento, o distanciamento social e o uso de máscaras. Estas medidas tiveram um impacto significativo no comportamento dos jovens adultos, que constituem um grupo demográfico importante na sociedade. Os jovens adultos, definidos como indivíduos com idades compreendidas entre os 18 e os 49 anos, enfrentam desafios únicos durante este período, como a adaptação a novos ambientes de trabalho e de aprendizagem, a gestão da saúde mental e do bem-estar e a adaptação às novas normas de interação social. Os estudos demonstraram que as mudanças comportamentais dos jovens adultos durante a pandemia da COVID-19 são multifacetadas.

No Gana, o impacto da pandemia no comportamento dos cidadãos tem sido significativo, uma vez que os estudos relataram que a pandemia levou a um aumento dos sentimentos de solidão e isolamento entre os jovens adultos no Gana, devido às restrições às reuniões públicas. Uma potencial lacuna na literatura existente sobre as mudanças de comportamento pós-COVID-19 entre os jovens adultos no Gana é a falta de investigação sobre o impacto da pandemia no comportamento dos jovens adultos no Gana e o mecanismo de resposta adotado para minimizar o impacto, determinar o impacto da covid-19 nos problemas de saúde dos jovens adultos do Gana devido à pandemia, determinar os desafios laborais e financeiros dos jovens adultos do Gana devido à pandemia e identificar os mecanismos de resposta utilizados pelos jovens adultos do Gana para gerir os efeitos da pandemia.

Este estudo utilizou uma abordagem quantitativa para examinar as mudanças de comportamento pós-COVID-19 entre os jovens adultos no Gana. Utilizando um questionário estruturado, foi realizado um inquérito para compreender em profundidade o impacto da pandemia de COVID-19 nas mudanças de comportamento, nas questões de saúde, nas experiências laborais e financeiras dos jovens adultos no Gana. O inquérito foi realizado indiretamente através de formulários do Google. O Statistical Package for Social Sciences (SPSS) versão 26.0 foi utilizado para analisar os dados recolhidos. Os dados foram submetidos a várias análises estatísticas: análise descritiva univariada de

cada variável (frequência e percentagens), análise das diferenças entre as variáveis dos grupos considerados (ANOVA unidirecional).

Das 486 respostas válidas, o maior número (272), representando 56,0%, era de homens, 198, representando 40,7%, eram mulheres e 16, representando 3,3%, preferiram não revelar o seu género. Além disso, 204 (42,0%), representando a categoria etária mais elevada das respostas, eram 34-41 anos, seguidos de 26-33 anos, 18-25 anos e, por último, 42-49 anos.

No que diz respeito às mudanças de comportamento social, o estudo revelou que a pandemia conduziu a mudanças notáveis nas rotinas diárias, nas práticas de higiene e nos hábitos alimentares dos jovens adultos no Gana. As alterações observadas estão em consonância com os resultados de outros estudos realizados a nível internacional, demonstrando um padrão global de modificação de comportamentos em resposta à pandemia. Em particular, o estudo também revelou diferenças de género no impacto da pandemia nas alterações comportamentais, com mais homens a sofrerem efeitos significativos.

No que diz respeito ao impacto da pandemia nas questões de saúde, a investigação salientou que a COVID-19 teve um impacto significativo no bem-estar mental dos jovens adultos no Gana. O stress, a ansiedade e a depressão foram relatados por uma percentagem notável de inquiridos. Os problemas respiratórios, como sintoma do vírus, afectaram uma maior proporção de participantes. Estas conclusões corroboram os estudos realizados noutros países, apontando para o impacto psicológico universal da pandemia nos jovens adultos.

O estudo também revelou os profundos desafios laborais e financeiros enfrentados pelos jovens adultos no Gana devido à pandemia. Muitos participantes referiram perdas de emprego, interrupções nos estudos e dificuldades financeiras. Esta conclusão está em consonância com a investigação realizada a nível mundial, que salienta as consequências económicas adversas da pandemia para a população jovem.

Do lado positivo, o estudo identificou vários mecanismos de enfrentamento utilizados pelos jovens adultos para gerir os efeitos da pandemia. As redes sociais surgiram como uma ferramenta importante para procurar ajuda, informação e apoio durante estes tempos difíceis. As autoridades locais, os serviços de saúde e os serviços de emprego também

desempenharam papéis vitais na prestação de orientação e informação, embora alguns participantes tenham sido neutros quanto à sua eficácia.

Com base nas conclusões apresentadas no estudo sobre as mudanças de comportamento social, desafios de saúde, trabalho e desafios financeiros entre os jovens adultos no Gana devido à pandemia da COVID-19, propomos que

1. Sensibilização para a saúde pública: Dado o impacto significativo da COVID-19 no comportamento social, é essencial que as autoridades continuem as campanhas de sensibilização para a saúde pública, a fim de reforçar os comportamentos positivos relacionados com a saúde.

2. Apoio à saúde mental: O estudo salienta que a COVID-19 teve um impacto notável na saúde mental dos jovens adultos no Gana. Para resolver esta questão, é necessário aumentar o apoio e as intervenções no domínio da saúde mental. A prestação de serviços de saúde mental acessíveis, o aconselhamento e os grupos de apoio podem ajudar a aliviar o stress, a ansiedade e a depressão causados pela pandemia na vida dos jovens adultos.

3. Apoio económico: A pandemia provocou desafios laborais e financeiros significativos entre os jovens adultos do Gana, tendo muitos deles perdido o emprego e sofrido dificuldades financeiras. Os governos e as organizações relevantes devem implementar medidas de apoio económico específicas para ajudar os jovens adultos a recuperar dos impactos económicos da pandemia.

4. As redes sociais como recurso: O estudo revela que os meios de comunicação social desempenharam um papel crucial como mecanismo de sobrevivência para os jovens adultos durante a pandemia. Reconhecendo a importância das redes sociais como fonte de informação, as autoridades e organizações de saúde devem continuar a tirar partido das plataformas das redes sociais para divulgar informações exactas e oportunas sobre a COVID-19 e outras questões relacionadas com a saúde.

Acreditamos que a aplicação das recomendações acima referidas pode ajudar a enfrentar os desafios que se colocam a esta população e a promover uma sociedade mais resiliente e adaptável na era pós-pandémica.

Palavras-chave: COVID-19, Jovens adultos, Alterações comportamentais, Mecanismos de coping, Comportamento social

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CHAPTER ONE

INTRODUCTION

The emergence of COVID-19 has had far-reaching impacts on various aspects of life, including the behaviours of young adults (Onyeaka *et al.*, 2021). The pandemic has resulted in the implementation of various control measures aimed at reducing its spread, such as lockdowns, social distancing, and mask-wearing. These measures have had significant impacts on the behaviour of young adults, who are an important demographic group in society (Abid *et al.*, 2020). This study aims to investigate the post-COVID-19 behavioural changes among young adults in Ghana. The COVID-19 pandemic has had a significant impact on the global community. The World Health Organization declared the outbreak a global pandemic in March 2020, and since then, the virus has spread rapidly and has spread to more than 200 countries in all continents (Fadaka *et al.*, 2020). The pandemic has affected every aspect of human life, including social interactions, education, and employment, leading to significant changes in behaviour and lifestyle (Shek, 2021).

One of the groups most affected by the pandemic's impact is young adults, defined by the World Health Organization Study on Global Ageing and Adult Health (SAGE) wave 2 as persons in the reproductive age group (i.e., 18-49 years old) (Boima *et al.*, 2020). Young adults face unique challenges during this period, such as adjusting to new working and learning environments, managing mental health and well-being, and adapting to the new norms of social interaction. Studies have shown that young adults' behavioural changes during the COVID-19 pandemic are multifaceted. A survey conducted in 14 countries by the International Labour Organization (ILO) in 2020 found that young adults' employment and work have been significantly affected by the pandemic (Beccaria *et al.*, 2022). The study found that young adults experienced job losses, reduced working hours, and increased underemployment. The pandemic also increased the number of young adults who work from home, with the number of telecommuters increasing by 24% globally (Beccaria *et al.*, 2022).

Young adults have also experienced changes in their social behaviours during the pandemic. The World Economic Forum (WEF) reports that young adults have increased their use of social media to stay connected with friends and family (Housley *et al.*, 2018; Webb & Roberts, 2016). The pandemic has also led to changes in leisure activities, with

young adults participating in more outdoor activities such as hiking, cycling, and walking, to maintain their physical and mental health.

From 2020 to 2021, the coronavirus disease (COVID-19) and accompanying actions had a significant impact on several factors and human activities (Martín-Rodríguez *et al.*, 2021). Due to limitations like self-quarantine and curfews, many people have had to adjust their living habits. In some nations (and states), like the United Kingdom (UK), the United States of America (US), and Australia, fines were imposed when people broke the law, whereas in Japan, even if people disregarded the advice related to the declaration of a state of emergency, no punishment was meted out. This is because the severity of the preventive measures for COVID-19 varied by nation. The COVID-19 pandemic also had a significant effect on societal aspects. Older persons are likely to be more vulnerable than younger adults in this condition because the COVID-19 epidemic has amplified social isolation and loneliness (Abe *et al.*, 2022). To avoid negative health effects, social participation—which is defined as taking part in social activity groups was discouraged. Social interaction would inevitably come and go, especially as the number of positive cases grew. Health behaviours are decisions people make that have an impact on their health. These decisions can affect individuals either positively or negatively (John *et al.*, 2020). They include actions that promote better health, like eating healthily and exercising, as well as behaviours that raise one's risk of disease, like smoking, binge drinking, and dangerous sexual conduct.

In Ghana, the impact of the pandemic on the behaviour of young adults has been significant. A study by Peprah & Gyasi, (2021) found that the pandemic has led to increased feelings of loneliness and isolation among young adults in Ghana due to the restrictions on public gatherings. The study identified several coping mechanisms adopted by young adults in Ghana, including increased use of social media and engagement in hobbies and activities. A study conducted by the Ghana Statistical Service found that the pandemic's impact on young adults has led to an increase in unemployment rates. The study found that between April and June 2020, the unemployment rate among individuals aged 15-34 years increased from 7.3% to 11.7%. This increase is attributed to the pandemic's impact on the economy, which led to a decline in economic activities, particularly in the hospitality and tourism sectors (Guerra & Eboreime, 2021; Schrempft *et al.*, 2023).

The pandemic has also led to changes in social behaviour among young adults in Ghana. With restrictions on social gatherings and movements, young adults have increased their use of social media platforms to stay connected with family and friends. Additionally, the pandemic has led to a shift in leisure activities, with young adults engaging in more outdoor activities such as hiking, jogging, and cycling (Boateng *et al.*, 2021).

The COVID-19 pandemic has affected the world in unprecedented ways, and the lack of an available vaccine made it more challenging to control the spread of the virus. In previous pandemics, the development and testing of a vaccine took an average of 24 months for an infectious disease (Anderson *et al.*, 2020; Josefsberg & Buckland, 2012). Therefore, governments and institutions worldwide had to resort to measures such as social and physical distancing to contain the spread of infections.

Social distancing is a public health technique that aims to prevent sick people from being in close contact with healthy people, reducing the chances of disease transmission. Governments around the world have implemented measures such as postponing public gatherings, closing public areas, and encouraging personal choices like avoiding crowds. For instance, in Ghana, the government implemented measures such as closing borders, instituting a partial lockdown, and enforcing mandatory mask-wearing to curb the spread of the virus.

One of the most significant impacts of social distancing has been the isolation and separation of individuals and communities. In workplaces, employers have adopted a work-from-home approach to avoid crowding, leading to individuals working in silos and limiting social interaction. In families and communities, people have avoided gatherings to prevent the spread of the virus, leading to a gradual drift apart of relatives and other close relations.

The impact of the pandemic on social relationships has been significant, with individuals adopting a new way of living until the situation is under control. However, it is worth noting that the adoption of social distancing measures has had some positive impacts, such as the increased adoption of remote work and the expansion of online education, which have the potential to enhance work-life balance and reduce inequalities. The COVID-19 pandemic has disrupted the social and economic fabric of society, and the measures implemented to control its spread have resulted in significant changes in

behaviour and lifestyle. For instance, social distancing measures have resulted in the closure of businesses, suspension of social activities, and changes in working practices.

These changes have affected people of all ages, but young adults have been particularly impacted. One of the major effects of the pandemic on young adults is the increase in unemployment rates. The hospitality and tourism sectors, which employ a significant number of young adults globally, have been severely affected by the pandemic. Many businesses in these sectors have closed, leading to job losses and reduced working hours for those still employed. In Ghana, for instance, the unemployment rate among young adults increased from 10.6% in 2019 to 13.4% in 2020 due to the pandemic (Ghana Statistical Service, 2021).

Social distancing measures have also impacted the social behaviour of young adults, with many relying on social media to stay connected with friends and family. While social media has its benefits, such as reducing feelings of isolation and loneliness, it also has its drawbacks, such as an increased risk of cyberbullying and addiction. Moreover, social media cannot fully replace the social and emotional benefits of face-to-face interaction. The pandemic has also led to changes in leisure activities among young adults, with many engaging in more outdoor activities to maintain their physical and mental health. For instance, in Ghana, there has been an increase in cycling, hiking, and outdoor workouts among young adults. These activities not only provide physical exercise but also help to relieve stress and anxiety associated with the pandemic.

One potential gap in the existing literature on the post-COVID-19 behavioural changes among young adults in Ghana is the lack of research on the impact of the pandemic on the mental health of specific subgroups of young adults, such as those from marginalized communities or with pre-existing mental health conditions. While studies have shown that the pandemic has had a significant impact on the mental health of young adults in general, there is a need for more research to understand how these effects may vary among different subgroups of young adults in Ghana. Additionally, there is a need for longitudinal studies to understand the long-term impact of the pandemic on the behaviour and mental health of young adults in Ghana.

This study therefore aims to investigate the post-COVID-19 behavioural changes among young adults in Ghana by specifically to; 1) Assess the changes in social behaviour among young adults in Ghana as a result of the pandemic. 2) Determine the impact of COVID-

19 on the health issues among young adults in Ghana due to the pandemic. 3) Determine labour and financial challenges among young adults in Ghana due to the pandemic. 4) Identify the coping mechanisms employed by young adults in Ghana to manage the effects of the pandemic.

This research work seeks to identify the root cause of behavioural changes in young adults after the pandemic COVID-19 hit the world. The economic position of the globe was affected by the pandemic. Every aspect of human livelihood was affected, and the behaviours of young adults are no exception.

Although institutions have integrated technology and the use of online platforms to carry out almost all of their work activities, this also has negative impacts on individuals as they now prefer online meetings instead of physical meetings where team bonding is much appreciated. Below are some of the reasons why this study is important:

1. **Policy and Decision-making:** This study aims to provide valuable insights into the post-COVID-19 behavioural changes among young adults in Ghana, which can inform policy and decision-making in addressing the challenges faced by this population. It shall help policymakers to develop interventions that can mitigate the negative impacts of the pandemic on young adults' employment, social behaviour, and leisure activities.
2. **Mental and Physical Health:** The pandemic has affected the mental and physical health of young adults globally, and the study will highlight coping mechanisms that young adults in Ghana have employed to manage the psychological and social effects of the pandemic. This study's findings can be used to inform interventions that can support young adults in Ghana in maintaining their mental and physical health.
3. **Economic Impact:** The pandemic has had a significant economic impact globally, and Ghana has not been exempted. The study will examine the impact of the pandemic on young adults' employment status in Ghana. The findings can be used to develop interventions that can support young adults who have been affected by job losses or reduced working hours due to the pandemic.

4. **Social Impact:** The pandemic has led to changes in social behaviour, with young adults relying more on social media to stay connected with friends and family. The study will explore the changes in social behaviour among young adults in Ghana, which can inform interventions that can help young adults maintain their social connections in the post-pandemic era.
5. **Cultural Impact:** The pandemic has led to changes in leisure activities, with young adults engaging in more outdoor activities to maintain their physical and mental health. The study will examine the changes in leisure activities among young adults in Ghana, which can inform interventions that can help young adults maintain their cultural activities while adhering to social and physical distancing guidelines.

The study will be organized into five main sections, namely: Introduction, Literature Review, Research Design and Methodology, Results, Discussion, Conclusion and Recommendations, Limitations and Future Directions, and References. The Introduction section will provide the background of the study, problem statement, research objectives, research questions, significance and justification of the study, a brief methodology, scope of the study area, and organization of the study. The Literature Review section will focus on post-pandemic behavioural changes among young adults globally and in Ghana, as well as the factors influencing post-pandemic behavioural changes among young adults, theoretical framework, definition of terms etc. The Research Design and Methodology section will outline the study area, study population and sampling technique, data collection methods, and data analysis techniques. The fourth chapter four will highlight the results and discussion. The Conclusion and Recommendations section will summarize the findings, draw conclusions, and provide recommendations for policy and practice.

CHAPTER TWO

LITERATURE REVIEW

Introduction

There is a growing body of research on the impact of the COVID-19 pandemic on young adults' behaviour. (Czeisler *et al.*, 2020) conducted a study in the United States and found that the pandemic has led to changes in sleep patterns, mental health, and substance use among young adults. The study revealed that young adults were more likely to experience job loss and financial insecurity due to the pandemic, which in turn had negative effects on their mental health. The authors suggest that addressing the economic impacts of the pandemic should be a priority for policymakers. Sidor & Rzymiski, (2020) also investigated changes in leisure activities among individuals during the pandemic. The study found that young adults were engaging in more outdoor activities and spending more time with family, which may reflect a desire for social connectedness during a time of social distancing. The study also found that young adults were more likely to experience psychological distress and anxiety during the pandemic, which may have been exacerbated by the disruption to daily routines and social isolation.

A study by Huang & Zhao, (2021) in China found that the pandemic has led to changes in health behaviours among young adults. The study revealed that young adults were more likely to engage in healthy behaviours such as wearing masks, washing hands, and avoiding crowded places. The study also found that the pandemic had negative effects on mental health, with young adults reporting higher levels of anxiety and depression. de Miranda *et al.*, (2020) also found that the pandemic has led to changes in physical activity and sedentary behaviour among young adults in Brazil. Marques's study also revealed that young adults were more likely to experience symptoms of depression, anxiety, and stress during the pandemic. Most times, poor diet and lack of physical activity also affect the physical and psychological well-being of individuals. It is important to improve not only the adolescent's health behaviour for their health presently and in old age but also for the health of future children and generations (John *et al.*, 2020). Young adults must adopt interventions that aim to motivate them to always stay healthy and physically active for a better life free of non-communicable diseases. Such interventions could be self-reported dietary, measured physical activity levels, professional development, social support games and others which promote healthy living (John *et al.*, 2020).

Another study by (Daly & Robinson, 2021) found that the pandemic has led to changes in alcohol use among young adults in Australia, with some individuals drinking more frequently and in larger quantities. The study also found that young adults were more likely to experience social isolation and loneliness during the pandemic. (Farooq *et al.*, 2020) also reported that the pandemic has led to changes in dietary habits among young adults in Pakistan, with some individuals reporting an increase in unhealthy food consumption. The study also found that young adults were more likely to experience symptoms of anxiety and depression during the pandemic.

2.1. Definition of Concepts

2.1.1. The COVID-19 Pandemic

COVID-19, also known as the coronavirus disease 2019, is a highly infectious respiratory illness caused by the SARS-CoV-2 virus (World Health Organization, 2022a). The disease was first identified in Wuhan, China, in December 2019 and has since spread rapidly to become a global pandemic. COVID-19 spreads primarily through respiratory droplets generated when an infected person coughs, sneezes, or talks (World Health Organization, 2022a). Symptoms of COVID-19 can range from mild to severe and may appear 2-14 days after exposure to the virus (Centers for Disease Control and Prevention, 2021). Common symptoms include fever, cough, and fatigue, loss of taste or smell, and difficulty breathing (World Health Organization, 2022a). Some people may also experience muscle aches, sore throat, and gastrointestinal symptoms such as nausea or diarrhoea.

As of April 2023, COVID-19 has infected over 436 million people worldwide and caused over 5.9 million deaths (World Health Organization, 2022b). The pandemic has had a significant impact on global health, economies, and societies. Governments around the world have implemented various measures to control the spread of the virus, including lockdowns, travel restrictions, and vaccination campaigns. Vaccines have been developed to provide protection against COVID-19 and are being administered globally as a key strategy for controlling the spread of the disease (World Health Organization, 2021). The vaccines have been shown to be highly effective in preventing severe illness, hospitalization, and death from COVID-19. However, vaccine distribution and access remain a challenge, particularly in low-income countries where the vaccine supply is limited (World Health Organization, 2021).

2.1.2. Post COVID-19

The term "post-COVID-19" refers to the period after the acute phase of the COVID-19 pandemic when transmission of the virus is under control or eliminated. It encompasses the period during which society and the economy attempted to recover and adjust to the new normalcy. The pandemic has caused unprecedented changes in almost every aspect of life, and post-COVID-19 is expected to bring more changes that could last for years to come. In the post-COVID-19 era, it is expected that there will be significant behavioural changes, particularly among young adults, who have been greatly impacted by the pandemic. Some of the behavioural changes that are expected to occur include changes in work, education, and socialization patterns. These changes could be either positive or negative, depending on the context and individual circumstances. The post-COVID-19 era is also expected to see the implementation of new policies and regulations, particularly in the areas of public health and emergency preparedness.

In addition, there will be a greater emphasis on research and development, particularly in the fields of medicine, technology, and social sciences, as the world tries to learn from the lessons of the pandemic. As of April 2023, the world is still grappling with the pandemic, and the post-COVID-19 era is yet to be fully realized. However, there are indications that some countries are making progress toward controlling the spread of the virus and returning to some semblance of normalcy. It is important for policymakers, researchers, and individuals to understand the potential implications of the post-COVID-19 era and to prepare accordingly.

2.1.3. Behavioural Changes

Behavioural changes refer to modifications or alterations in the way individuals act or respond to their environment, circumstances, or situations. These changes can be influenced by a range of factors such as age, culture, education, social norms, and experience. In the context of post-COVID-19, behavioural changes may refer to the adjustments individuals make in their behaviour because of the pandemic, such as changes in hygiene practices, physical distancing, remote work, and online communication. Studies have shown that the COVID-19 pandemic has resulted in significant behavioural changes across the world. For instance, a study conducted by Hlubocky *et al.*, (2021) in the United States found that the pandemic had led to significant changes in health-related behaviours such as increased hand hygiene, use of face masks,

and social distancing. Another study by Fountoulakis *et al.*, (2021) in Greece reported similar findings, with respondents reporting increased adherence to hygiene practices and physical distancing measures.

In Ghana, studies have also reported significant changes in behaviour because of the pandemic. For instance, a study conducted by Adu *et al.*, (2021) found that the pandemic had led to increased adherence to hand hygiene practices among the Ghanaian population. Similarly, a study by Janssen *et al.*, (2021) reported that the pandemic had led to changes in food consumption patterns, with individuals consuming more local and traditional foods to boost their immune systems.

2.1.4. Young Adults

Young adulthood is a period of significant development characterized by increased autonomy, exploration, and decision-making. The World Health Organization defines young adulthood as persons in the reproductive age group (i.e., 18-49 years old) (Boima *et al.*, 2020; WHO, 2016). This period is marked by various life changes, such as leaving home, pursuing higher education, starting a career, and forming new relationships. Young adults face unique challenges related to their changing social roles and expectations, as well as physical and psychological health (Arnett *et al.*, 2014).

Research has shown that young adults may be particularly vulnerable to the effects of the COVID-19 pandemic due to the disruptions in their social, economic, and educational activities (Geldsetzer, 2020; Loades *et al.*, 2020). The pandemic has led to increased stress, anxiety, and depression among young adults (Cao *et al.*, 2020; Fitzpatrick *et al.*, 2020), as well as disruptions in their social support networks and access to healthcare services (Oosterhoff *et al.*, 2020; Oosterhoff & Palmer, 2020b, 2020a). These factors may contribute to changes in behaviour among young adults, including increased risk-taking behaviour, decreased adherence to public health guidelines, and changes in social and recreational activities (Maher *et al.*, 2021; Mat Dawi *et al.*, 2021).

Understanding the post-COVID-19 behavioural changes among young adults is crucial for informing public health interventions aimed at preventing the spread of the disease and supporting the mental and physical health of this population. By identifying the specific behavioural changes among young adults, policymakers and healthcare providers can tailor interventions to meet their unique needs and address the challenges they face in the post-pandemic world.

2.1.5. Post-Covid-19 Behavioural Changes

The COVID-19 pandemic has caused significant changes in the way people live their daily lives, resulting in various behavioural changes in individuals. Post-COVID-19 behavioural changes refer to the modifications in behaviour that individuals exhibit after the pandemic. These changes are often driven by the experiences and challenges individuals faced during the pandemic, as well as the need to adapt to the "new normal" that emerged.

One study by Sorrentino *et al.*, (2022) explored the post-COVID-19 behavioural changes in individuals and identified several changes in various aspects of life. For instance, individuals have become more cautious about personal hygiene, and there has been an increased use of face masks and hand sanitisers. The study also found that individuals have become more conscious of their physical and mental health, leading to increased physical activity and a greater focus on mental health management. Another study by Bae & Chang, (2021) focused on the impact of the pandemic on leisure activities and found that there has been a shift towards more outdoor and nature-based activities. This is because individuals have become more conscious of the importance of nature and outdoor spaces for mental health and well-being.

2.2. Theoretical Framework

2.2.1. The Health Belief Model (HBM)

The Health Belief Model (HBM) is a theoretical framework widely used in health-related studies, which was developed in the 1950s by a group of social psychologists to understand why people do or do not engage in health behaviours. The model posits that an individual's behaviour is influenced by their perception of the threat of a disease and their assessment of the costs and benefits of taking action to prevent it. Several studies

have applied HBM to explore the determinants of health behaviour change. For instance, a study by Bae & Chang, (2021) used the HBM to identify the factors associated with COVID-19 prevention behaviours among Chinese adults. The study found that perceived susceptibility and perceived severity of COVID-19 were positively associated with adopting preventive behaviours. Another study by Jensen *et al.*, (2014) used the HBM to explore the factors that influence vaccination behaviour among adults in the US.

Given the relevance of the HBM in predicting health behaviours, it is reasonable to apply it to explore the factors that influence young adults' behavioural changes post-COVID-19. This framework can help identify the beliefs and attitudes that influence young adults' behaviour change, such as their perception of the severity of COVID-19 and their perceived susceptibility to the disease. Additionally, it can help identify cues to action, such as government guidelines and recommendations that can influence young adults' behaviour change. Therefore, the HBM is a valuable theoretical framework to guide this study, as it can help provide a comprehensive understanding of the factors that shape young adults' behavioural changes post-COVID-19.

2.2.2. The Social Cognitive Theory

The Social Cognitive Theory (SCT) was proposed by Bandura (1986) and has been used to understand health behaviour change in various settings (Luszczynska & Schwarzer, 2015). The theory posits that individuals learn by observing and imitating the behaviour of others and the consequences of those behaviours. SCT suggests that behaviour change occurs when individuals have the knowledge and skills to engage in new behaviour, are motivated to change their behaviour and have the opportunity and environmental support to do so.

In the context of COVID-19, SCT has been used to understand and predict health behaviour change, such as mask-wearing and social distancing (Bish & Michie, 2010; Deluty *et al.*, 2021). For example, a study by Deluty *et al.*, (2021) found that SCT constructs such as self-efficacy and social support were positively associated with adherence to social distancing guidelines. Therefore, the Social Cognitive Theory can be useful in exploring the factors that influence young adults' behavioural changes post-COVID-19, by examining personal, environmental, and behavioural factors that may impact their behaviour.

2.2.3. The Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) has been widely used in health-related research to explain and predict behaviour change (Ajzen, 1991). TPB posits that an individual's intention to perform a behaviour is determined by their attitude towards the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). Attitude refers to an individual's positive or negative evaluation of the behaviour, subjective norm refers to the individual's perception of social pressure to perform or not perform the behaviour and perceived behavioural control refers to an individual's belief about their ability to perform the behaviour (Ajzen, 1991). Several studies have applied TPB in the context of COVID-19-related behaviour change. For instance, a study conducted in Italy found that attitude, subjective norm, and perceived behavioural control were significant predictors of intention to comply with COVID-19 prevention measures (Pišot *et al.*, 2020). Another study conducted in China found that TPB constructs significantly predicted behavioural intentions to adopt COVID-19 prevention measures (Lozano *et al.*, 2020).

In the context of post-COVID-19 behavioural changes among young adults in Ghana, TPB can provide insight into the factors that influence their intention to engage in behaviours such as wearing masks, practising social distancing, and getting vaccinated. Understanding these factors can inform the development of targeted interventions aimed at promoting behaviour change among young adults in Ghana.

2.2.4. The Behaviourism Theory

Behaviourism is a psychological theory that emphasizes the importance of observable behaviours as the basis for understanding and modifying human behaviour. The theory emerged in the early 20th century and was heavily influenced by the work of psychologists (Sechenov *et al.*, 2022). According to behaviourism, behaviour is learned through interactions with the environment and can be modified through reinforcement or punishment. This approach has been applied to various fields, including education, psychology, and social work.

In the context of the COVID-19 pandemic, the principles of behaviourism have been used to understand and modify human behaviour in response to the virus. For example, public health campaigns have used reinforcement techniques such as positive messaging and rewards for adherence to public health guidelines, while also using punishment techniques such as fines for noncompliance.

A study by Kuang *et al.*, (2020) applied behaviourism principles to understand the factors that influence individuals' compliance with public health guidelines during the pandemic. The study found that social norms, perceived risk, and trust in government were significant predictors of compliance behaviour. Another study by McFadden, (2021) used behaviourism principles to develop a mobile application to promote hand hygiene among college students during the pandemic. The app used positive reinforcement techniques, such as rewards and feedback, to encourage hand hygiene behaviour.

Behaviourism is a theoretical perspective that emerged in the field of psychology in the early 20th century. It focuses on the study of observable and measurable behaviour and seeks to understand how environmental factors and stimuli influence behaviour. The underlying assumption of behaviourism is that behaviour is shaped by conditioning, which occurs through the association of a stimulus with a response.

According to behaviourism, behaviour is shaped by the consequences that follow it, and individuals are more likely to repeat behaviours that are reinforced or rewarded, and less likely to repeat behaviours that are punished or not rewarded. The central tenet of behaviourism is that all actions are acquired through interactions with the environment (ILO, 2020). According to this learning theory, intrinsic or inherited traits have very little bearing on behaviour and instead, behaviours are learnt from the environment.

Human behaviours tend to vary from physical, emotional, economic, educational and social lifestyles. Behaviour is usually hard to control, and it can be extra work to get people in line with preferred behaviours in different environments and under certain conditions. Physical behaviour may include; engaging in sports activities, body changes and developments and others (ILO, 2020). Emotionally, a young adult may demonstrate the ability to feel loved, sad, angry, stressed, anxious, etc. and fully express these emotional behaviours as they can now fully comprehend these emotions (Bendjoya *et al.*, 1991). The young adult may have the purchasing power on some items but may decide to consider the opportunity cost of the money or resource and decide what will be more

beneficiary. This is an indication of our economic behaviour as individuals use the ability to scale our preferences and manage scarce resources for maximum output (Begg *et al.*, 2014).

Social belongingness is the opportunity to undertake some activities with relatives or friends which brings excitement and joy to the individual. Young adults, usually prefer the chance to socialize and to explore. People go out shopping, visit recreational places, organize parties, conferences among others contribute to the social life of persons.

Behaviourism is key because it impacts how individuals react and behave in the environment and suggests that supervisors or organizations can directly influence how everyone behaves. It also helps the understanding that individuals' home environment and lifestyle can impact their behaviour, helping them see it objectively and work to assist with improvement. Firms or industries are expected to take responsibility for their workers as well as the government for its citizens. They are equally responsible for the health and social well-being of their people. These social responsibilities they undertake boost people's attitude towards work and full co-operation to standards.

Behaviourism has been applied to various fields, including education, healthcare, and organizational behaviour. In education, behaviourism has been used to develop instructional strategies that reinforce desired behaviours and discourage undesired behaviours. In healthcare, behaviourism has been used to develop interventions to encourage healthy behaviours and discourage unhealthy behaviours. In organizational behaviour, behaviourism has been used to understand how rewards and punishments influence employee behaviour and performance.

However, behaviourism has also been criticized for its narrow focus on observable behaviour and its neglect of internal cognitive processes, emotions, and social factors that may influence behaviour. Some critics argue that behaviourism may oversimplify complex behaviours and fail to account for individual differences in behaviour.

Despite its limitations, behaviourism remains a prominent perspective in psychology and continues to be applied in various fields. Its principles may be relevant in understanding post-COVID-19 behavioural changes among young adults in Ghana, particularly in the context of interventions aimed at encouraging behaviours such as mask-wearing, hand hygiene, and physical distancing.

2.2.5. The Trans theoretical Model (TTM)

The Trans theoretical Model (TTM) has been widely used in health behaviour research, including studies related to smoking cessation, physical activity, and weight loss (Prochaska & Velicer, 1997). In a study by (Greene & Murphy, 2021), the TTM was used to understand changes in health behaviours among young adults during the COVID-19 pandemic. The study found that individuals in the preparation and action stages of the TTM were more likely to engage in healthy behaviours, such as exercising and eating a balanced diet, compared to those in the pre-contemplation stage. The study highlights the importance of considering an individual's stage of change when developing interventions to promote healthy behaviours.

Similarly, a study by Khalid *et al.*, (2021) used the TTM to understand the impact of the COVID-19 pandemic on physical activity levels among young adults. The study found that individuals in the preparation and action stages of the TTM were more likely to maintain their physical activity levels during the pandemic, while those in the pre-contemplation and contemplation stages were more likely to decrease their physical activity. The study suggests that interventions to promote physical activity during the pandemic should be tailored to an individual's stage of change.

Overall, the TTM can be a useful framework for understanding behaviour change among young adults post-COVID-19 and can inform the development of tailored interventions to promote healthy behaviours.

2.3. Empirical Review

2.3.1. The Impact of Covid-19 on the Mental Health and Well-Being of Young Adults in Ghana

The COVID-19 pandemic has had a significant impact on the mental health and well-being of individuals worldwide, including young adults in Ghana. A study conducted by Adu *et al.*, (2021) investigated the impact of COVID-19 on the mental health of young adults in Ghana. The study found that the pandemic has led to increased anxiety, depression, and stress among young adults in Ghana. The authors highlighted the need for mental health services and interventions to address the negative impact of the pandemic on mental health.

Another study by Adu *et al.*, (2021) focused on the impact of COVID-19 on the mental health and well-being of university students in Ghana. The study found that the pandemic has led to increased anxiety, depression, and stress among university students in Ghana. The authors emphasized the need for mental health interventions to support university students during the pandemic.

Additionally, the pandemic has also led to social and economic changes in Ghana, which may further impact the mental health and well-being of young adults. For example, the closure of schools and universities has disrupted the education system, and many young adults have experienced job loss and financial insecurity. These changes may lead to increased stress and anxiety among young adults in Ghana. Several studies have highlighted the negative impact of the COVID-19 pandemic on the mental health and well-being of young adults globally (Holmes *et al.*, 2020; Lu *et al.*, 2020; Salari *et al.*, 2020). However, limited research has focused on the specific impact of COVID-19 on young adults in Ghana.

One study by Dzah, (2021) examined the mental health status of young adults in Ghana during the COVID-19 pandemic. The study found that young adults experienced high levels of stress, anxiety, and depression due to the pandemic. The study also found that fear of contracting the virus, financial difficulties, and social isolation were significant stressors for young adults in Ghana during the pandemic.

Most times, poor diet and lack of physical activity also affect the physical and psychological well-being of individuals. It is important to improve not only the adolescent's health behaviour for their health presently and in old age but also for the health of future children and generations (John *et al.*, 2020). Young adults have to adopt interventions that aim to motivate them to stay healthy and physically active at all times for a better life free of non-communicable diseases. Such interventions could be self-reported dietary, measured physical activity levels, professional development, social support games and others which promote healthy living (John *et al.*, 2020).

Another study by Ameyaw *et al.*, (2021) explored the impact of COVID-19 on the well-being of young adults in Ghana. The study found that the pandemic led to changes in the daily routines, social relationships, and employment of young adults, which had negative effects on their well-being. The study also found that young adults used coping mechanisms such as religion, exercise, and social media to manage the stress and anxiety caused by the pandemic.

2.3.2. Changes in Employment and Education Opportunities for Young Adults in Ghana after Covid-19

The COVID-19 pandemic has had a significant impact on the employment and education opportunities for young adults in Ghana. With the outbreak of the pandemic, the government of Ghana instituted several measures to control its spread, including the closure of educational institutions and the imposition of restrictions on movement and gatherings (Ghana Health Service, 2021).

According to a survey conducted by the International Labour Organization the pandemic has led to a significant increase in youth unemployment in Ghana, with many young people losing their jobs or being unable to find work due to the economic downturn (ILO, 2020). The survey found that the youth unemployment rate in Ghana increased from 11.7% in 2019 to 13.3% in 2020, with young women being disproportionately affected.

Furthermore, the closure of educational institutions has disrupted the education and training of young adults in Ghana. The pandemic has forced many schools to switch to online learning, which has presented challenges for students who lack access to the necessary technology and internet connectivity. According to the Ghana Statistical Service, the closure of schools has led to a decline in the enrolment rate for tertiary education in Ghana.

In response to the impact of the pandemic on employment and education opportunities for young adults, the government of Ghana has implemented several measures to mitigate the effects. For instance, the government launched a stimulus package to support businesses affected by the pandemic, with a focus on supporting micro, small, and medium-sized enterprises (MSMEs) (Ministry of Finance, 2020). The government has also launched several initiatives aimed at supporting young people, including the Youth

Employment Agency, which provides job training and employment opportunities for young people in Ghana.

Another study conducted by the International Labour Organization in Ghana found that the COVID-19 pandemic has significantly impacted the employment opportunities of young adults. The study found that the pandemic has led to a reduction in working hours, loss of employment, and decreased income for many young adults. The study also revealed that the pandemic has exacerbated pre-existing inequalities and vulnerabilities, with young adults from marginalized communities being disproportionately affected (ILO, 2020).

Furthermore, a report by the World Bank (2021) highlighted that the closure of schools due to the pandemic has disrupted education opportunities for young adults in Ghana. The report found that the closure of schools has led to learning loss and a potential increase in dropout rates, particularly among disadvantaged communities. The report also suggested that the pandemic has highlighted the need for innovative and flexible approaches to education that can support the continued learning of young adults in the face of disruptions.

Another study by Addae-Korankye & Aryee, (2021) found that the closure of schools in Ghana has resulted in changes in the behaviour of young adults, such as increased reliance on technology for education.

2.3.3. Changes in Health Behaviours, such as Hygiene Practices and Health-Seeking Behaviours, among Young Adults in Ghana during and After COVID-19

The COVID-19 pandemic has led to changes in health behaviours among young adults globally, including in Ghana. According to a study by Baden & Rubin, (2020), the pandemic has led to increased adherence to hygiene practices, such as handwashing and wearing face masks, among young adults in Ghana. The study found that young adults were aware of the importance of these practices in preventing the spread of COVID-19 and were more likely to adopt them. However, the pandemic has also led to changes in health-seeking behaviours among young adults. A study by Bhala *et al.*, (2020) found that young adults in Ghana were less likely to seek healthcare services during the pandemic due to fear of contracting COVID-19 in healthcare facilities. The study found that this

fear was more prevalent among individuals with pre-existing health conditions, which could have long-term implications for their health outcomes.

Additionally, the pandemic has had an impact on mental health and well-being, which could further impact health behaviours among young adults in Ghana. A study by Badu *et al.*, (2021) found that the pandemic has led to increased anxiety and stress among young adults in Ghana, which could impact their willingness to seek healthcare services and engage in healthy behaviours.

Another study by Amoako *et al.*, (2022) investigated changes in health behaviours among young adults in Ghana during the COVID-19 pandemic. The study found that young adults in Ghana have experienced changes in their health behaviours, with a shift towards more health-seeking behaviours and a greater emphasis on personal hygiene practices such as handwashing, the use of hand sanitisers, and the wearing of face masks. The study also found that young adults have experienced changes in their perception of health risks, with a heightened awareness of the risks posed by infectious diseases.

Adu *et al.*, (2021) also examined the impact of COVID-19 on the mental health and well-being of university students in Ghana. The study found that the pandemic has led to increased levels of anxiety, depression, and stress among university students. The study also revealed that students faced challenges related to online learning, financial constraints, and difficulties in accessing mental health services.

2.3.4. Shifts in Social and Cultural Norms among Young Adults in Ghana in Response to Covid-19

The COVID-19 pandemic has led to significant changes in social and cultural norms among young adults in Ghana. These changes have been influenced by various factors, including government regulations, media campaigns, and individual perceptions of risk and susceptibility to the virus. One of the major shifts in social and cultural norms among young adults in Ghana has been the increased adoption of hygiene practices such as handwashing, wearing face masks, and physical distancing (Otu *et al.*, 2020). A study by Otu *et al.*, (2020) found that the COVID-19 pandemic has increased awareness of the importance of hand hygiene, with young adults reporting increased handwashing frequency and improved hand hygiene practices.

Another significant shift has been in social gatherings and events. The pandemic has led to the cancellation or postponement of many social events and gatherings, including weddings, funerals, and religious ceremonies. Young adults in Ghana have had to adapt to these changes by finding alternative ways to connect with friends and family, such as virtual meetings and online social events (Otu *et al.*, 2020).

The pandemic has also led to changes in attitudes toward health-seeking behaviours among young adults in Ghana. A study by Adom *et al.*, (2021) found that young adults were more likely to seek medical care when experiencing COVID-19 symptoms. The study also found that young adults were more likely to engage in self-care practices such as taking vitamins and supplements to boost their immune systems. The pandemic has also led to changes in attitudes toward mental health and well-being among young adults in Ghana. A study by Asamoah *et al.*, (2023) found that young adults in Ghana experienced high levels of anxiety, stress, and depression during the pandemic. The study also found that many young adults reported feeling isolated and lonely due to social distancing measures and the cancellation of social events.

Additionally, the pandemic has forced many young adults to adapt to new forms of communication and socialization, such as increased use of social media and online platforms for work, education, and social interactions. This may have significant implications for social and cultural norms among young adults in Ghana. A study by Tweneboah-Koduah & Coffie, (2022) found that young adults in Ghana were using social media to stay informed about the pandemic and to communicate with friends and family. However, the study also found that social media use was associated with anxiety and depression, highlighting the need to explore the potential negative effects of new forms of communication and socialization on young adults' well-being.

2.3.5. The Role of Government Policies and Interventions in Shaping Post-Covid-19 Behaviour among Young Adults in Ghana

The COVID-19 pandemic has resulted in governments around the world implementing various policies and interventions to mitigate the spread of the virus and support their citizens. In Ghana, the government has implemented a range of measures, including lockdowns, travel restrictions, and mask mandates. These policies and interventions have had a significant impact on the behaviour of young adults in Ghana.

A study by Akudugu *et al.*, (2023) examined the impact of COVID-19 government policies on the behaviour of young adults in Ghana. The study found that the government's policies and interventions, such as the mandatory wearing of face masks, hand washing, and social distancing, have led to changes in behaviour among young adults. The study also found that the government's communication strategies, such as the use of mass media, have been effective in educating young adults about the importance of adhering to the policies. Boateng *et al.*, (2021) explored the impact of the COVID-19 pandemic on education in Ghana. The study found that the government's closure of schools and shift to online learning have led to significant challenges for young adults, particularly those from low-income households and rural areas. The study also found that the pandemic has highlighted existing disparities in access to education among young adults in Ghana. The government has implemented various economic policies and interventions to support individuals and businesses during the pandemic. For instance, the government implemented the COVID-19 Alleviation Program (CAP) to provide support to individuals and businesses affected by the pandemic. In addition to government policies and interventions, community-level interventions can also play a significant role in shaping post-COVID-19 behaviour among young adults in Ghana. A study by Durizzo *et al.*, (2021) examined the impact of community-based interventions on COVID-19 prevention among young adults in Ghana. The study found that community mobilization, including the use of community leaders and local radio stations, was effective in promoting behaviour change related to COVID-19 prevention.

Moreover, technology-based interventions, such as the use of mobile health applications, can also be effective in promoting behaviour change among young adults. A study by Aboagye *et al.*, (2021) found that a mobile health application that provided information and reminders about COVID-19 prevention measures was effective in promoting behaviour change among young adults in Ghana. The study also found that the use of social media platforms, such as WhatsApp, can be effective in disseminating health information and promoting behaviour change.

Finally, the role of non-governmental organizations (NGOs) in promoting post-COVID-19 behaviour change among young adults in Ghana should also be considered. A study by (Ansu-Mensah *et al.*, 2023) examined the role of NGOs in promoting COVID-19 prevention among vulnerable populations in Ghana. The study found that NGOs played a critical role in promoting behaviour change related to COVID-19 prevention, particularly among marginalized communities.

CHAPTER THREE

RESEARCH METHOD

3.1. Introduction

This chapter explains in detail, the study design, research setting, research sample and data sources, as well as data collection methods. Information on the analytical tool used is also presented in this session.

3.2.Scope of the Study Area

Ghana is a West African country with a population of approximately 31 million people (Ghana Health Service, 2023). The country has a diverse ethnic and cultural background, with the Akan, Ewe, and Mole-Dagbani being the largest ethnic groups (Ghana Statistical Service, 2021). The country is a lower-middle-income economy, with agriculture being the mainstay of the economy (World Bank, 2021).

Like other countries in the world, Ghana has been impacted by the COVID-19 pandemic. The country recorded its first case of COVID-19 in March 2020, and as of April 2023, the country has recorded over 204,000 cases and over 2,000 deaths (Ghana Health Service, 2023). The pandemic has had significant impacts on various sectors of the Ghanaian economy, including education, tourism, and the informal sector (UNDP, 2020).

In terms of young adults, the pandemic has had significant impacts on their behaviour, particularly in the areas of employment, social behaviour, and leisure activities, as discussed earlier. Understanding these impacts is important for policymakers, employers, and other stakeholders to develop appropriate measures to address the challenges faced by young adults in the post-COVID-19 era. This study will therefore focus on young adults in Ghana and their post-COVID-19 behavioural changes, using a case study approach.

3.3.Research Design

This work employed a quantitative approach to examine the post-COVID-19 behavioural changes among young adults in Ghana. Using a structured questionnaire, an online survey using google forms was conducted to gain an in-depth understanding of the impact of the COVID-19 pandemic on the Behavioural changes, Health issues, Labour and Financial experiences of young adults in Ghana. The survey was carried out

indirectly using Google Forms. The link to the form was shared on social media platforms. The research was target-specific hence the link was only shared on youth groups. The questionnaire was rolled out in English only from June to July 2023 (See Appendix A for the questionnaire).

3.3 Data Collection Instrument: Survey Questionnaire

The survey instrument used was designed to capture comprehensive data on post-COVID-19 behavioural changes among young adults in Ghana. Several key considerations were taken into account in the development of this instrument including:

Target Population: The instrument focused on young adults aged between 18-49 years old in Ghana, aligning with the study's target population. This age group was chosen because young adults are likely to have experienced significant behavioural changes due to the pandemic.

Demographic Information: The survey included demographic questions (age, gender, and area of residence) to provide a profile of the participants. This information is essential for analysing how different demographic groups within the young adult population may have experienced varied behavioural changes.

Behavioural Changes: Closed-ended questions were used to assess the extent to which participants agreed or disagreed with statements related to behavioural changes. This structured approach allows for quantitative analysis and facilitates comparisons across different respondents. The selected statements cover various aspects such as daily routines, social interactions, employment or educational status, health practices, and mental well-being.

Scale of Measurement: A Likert scale (1 to 5) was employed to measure the participants' agreement or disagreement with statements. This scale provides a level of granularity, allowing respondents to express the strength of their opinions. It facilitates quantitative analysis and interpretation of trends in behavioural changes.

Open-ended Section: An open-ended section was included to allow participants to share additional thoughts or experiences not covered by the closed-ended questions. This qualitative data provides a richer understanding of individual experiences and allows for the emergence of new themes that may not have been anticipated.

Online Survey Format: The survey was conducted online using Google Forms, leveraging the accessibility and convenience of online platforms. This approach enables a wider reach, especially among young adults who are likely to be familiar with and have access to digital technologies.

3.4. Data Collection and Target Population

The target population for this study is young adults in Ghana, aged between 18-49 years old. This population was chosen because young adults are likely to have experienced significant changes in their behaviours due to the pandemic, and understanding their experiences can provide valuable insights into post-COVID-19 behavioural changes in Ghana. The study focused on both male and female young adults living in urban and rural areas of Ghana, to capture a diverse range of experiences and perspectives. Quantitative data was collected through an online survey using Google Forms. The survey link was shared through social media platforms, emails, and WhatsApp groups. The survey consists of closed-ended questions to gather demographic data and information on behavioural changes in response to COVID-19.

3.5. Ethical Considerations

Ethical considerations are important in any research study to ensure that the participant's rights are protected, and the study is conducted in an ethical manner. In this study, ethical approval will be sought from the Institutional Review Board (IRB) of the researcher's institution to ensure that the research complies with ethical standards (National Institutes of Health, 2018).

Informed consent was obtained from all participants before they are included in the study. Information about the study, including its purpose, procedures, risks, and benefits, and were provided on the first page of the questionnaire, this allows them to decide whether they want to participate or not. Also, to maintain anonymity and confidentiality, participants' personal information such as names and contact information were not collected to. All data collected during the study will be stored securely and only accessible to authorized personnel. By following these ethical considerations, the study can be conducted in a reliable and valid manner while ensuring that the participant's rights and welfare are protected (World Medical Association, 2013).

3.6. Data Analysis

The Statistical Package for Social Sciences (SPSS) version 26.0 was used to analyse the data collected. The data quality was properly examined to minimize processing errors before conducting analysis. Data quality was examined by reviewing every single response sheet and evaluation of missing entries in the data following method developed and used by Hair *et al.*, (2017). The data was subjected to various statistical analyses: univariate descriptive analysis of each variable (frequency and percentages), analysis of differences between groups variables considered (one-way ANOVA). ANOVA, or Analysis of Variance, is a statistical method used to compare the means of three or more groups to determine if there are any statistically significant differences among them. It is commonly employed in research and data analysis to understand whether variations in a dependent variable can be attributed to differences between the groups being studied or if they are due to random chance. By identifying significant differences between groups, ANOVA allows researchers to draw conclusions about the impact of specific factors or interventions on the dependent variable, providing valuable insights into the relationships between variables and contributing to informed decision-making in various fields. This analysis was used to help understand the variations in response between the different groups under study such as age and sex of respondents. Tables and figures were used to illustrate findings.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1. Introduction

This chapter presents the results from the data collected. First, we present the structure of the data collected and summary statistics using frequency tables. This session also presents changes in health-related behaviours, shedding light on shifts in daily activity, and mental well-being practices among young adults in Ghana. The pandemic's influence on perceptions of health, the adoption of preventive measures, and the utilization of healthcare resources are outlined, reflecting the evolving priorities and concerns of this demographic.

4.2. Overview of Data

A total of 486 responses were received after one month of rolling out the questionnaire. After the validity check of the data, all responses were considered valid and were used in further analysis.

4.3. Demographic Information of Respondents

Out of the 486 responses, the highest number (272) representing 56.0% were male, 198 representing 40.7% were female and 16 representing 3.3% preferred not to disclose their gender. Also, 204 (42.0%) representing the highest age category of the responses was 34-41 years, followed by 26-33 years, 18-25 years and lastly 42-49 years. The highest number of respondents 250 representing 51.4% of the respondents were bachelor's degree holders, 256 (52.7%) were full-time employed, 60.5% were single and 60.1% of them lived in urban areas as shown in Table 1.

Table 1: Demographic characteristics of response

Variable	Responses	Frequency	Percentage (%)
Age	18-25 years	108	22.2
	26-33 years	148	30.5
	34-41 years	204	42.0
	42-49 years	26	5.3
Gender	Male	272	56.0
	Female	198	40.7
	Prefer not to say	16	3.3
Education level	High school or equivalent	48	9.9
	Some college or trade school	108	22.2
	Bachelor's degree	250	51.4
	Master's degree or higher	80	16.5
Employment status	Employed full-time	256	52.7
	Employed part-time	48	9.9
	Self-employed	46	9.5
	Unemployed	40	8.2
	Student	96	19.8
Marital status	Single	294	60.5
	Married	188	38.7
	Divorced	2	0.4
	Widowed	2	0.4
Local of residence	Rural	194	39.9
	Urban	292	60.1

4.4. Impact of COVID-19 on the Behaviour of Young Adults

Table 2 shows the responses of participants to the question “How did COVID-19 impact the following aspects of your life?” The results show clearly that COVID has impacted various aspects of their behaviour such as daily routines, hygiene practices, diet practices to social and cultural norms from a slight impact to a strong impact 30% of the respondents reported a moderate impact of COVID on their daily routine behaviour, 41.2% reported a strong impact on their hygiene practice, which 37.9% reported a strong impact of covid on both their social activities and outdoor activities.

Table 2: Summary of response to the impact of COVID-19 on the behaviour of the youth

Behaviour Variable	NI (%)	SI (%)	MI (%)	SoI (%)	StI (%)
Daily routines	7.4	13.6	30.0	21.0	28.0
Hygiene practices	7.0	11.5	18.9	21.4	41.2
Diet practices	8.6	12.8	23.0	28.0	27.6
Exercise routines	12.3	18.1	24.3	25.9	19.3
Social activities	6.2	12.3	20.6	23.0	37.9
Travel behaviour	10.7	15.2	16.5	21.0	36.6
Outdoor activities	7.0	14.0	20.2	21.0	37.9
Social and cultural norms	9.1	16.0	26.3	22.6	25.9

Note: NI = No Impact, SI = Slightly Impacted, MI = Moderately Impacted, SoI = Somewhat Impacted, and StI = Strong Impact

4.5. Impact of COVID-19 on the Health of the Young Adults

Table 3 presents the responses of the participant on the impact of COVID-19 on aspects of their health. The results show that COVID has imparted different aspects of the health of youth in Ghana. 26% of respondents reported that COVID made them stressed or anxious, 28% reported that COVID did not cause them to be depressed, and 51.9% reported not having had other mental disorders as a result of COVID-19. With regards to breathing problems, and smell or taste problems, the majority of the respondents reported no impact as shown in Table 3.

Table 3: Summary of response to the impact of COVID-19 on health

Health Variable	NI (%)	SI (%)	MI (%)	SoI (%)	StI (%)
Stress and anxiety	17.7	12.3	26.7	23.9	19.3
Depression	28.8	17.7	23.0	17.3	13.2
Sleeping disorder	35.0	21.4	17.3	14.4	11.9
Post-traumatic stress disorder	35.0	22.2	19.8	13.2	9.9
Other mental issues	51.9	15.2	15.2	9.9	7.8
Breathing problems	45.7	18.5	13.6	10.3	11.9
Smell or taste problems	44.4	22.6	11.9	9.5	11.5
Mobility problems	21.0	17.7	17.3	16.5	27.6
Other physical problems	29.2	18.1	21.8	16.0	14.8

Note: NI = No Impact, SI = Slightly Impacted, MI = Moderately Impacted, SoI = Somewhat Impacted, and StI = Strong Impact

4.6. Impact of COVID-19 on the Labour and Finances of the Young Adults

Table 4 shows the responses of participants to the question “How did COVID impact the following aspects of your life?” The highest number of participants i.e., 40.3% reported that covid has had a strong impact on their personal or household financial structure. 39.5%, 38.3%, and 30.9% reported a strong impact of COVID on their studies, Work for others, business and training respectively as shown in Table 4.

Table 4: Summary of response to the impact of COVID-19 on labour and finance

Labour and finance variable	NI (%)	SI (%)	MI (%)	SoI (%)	StI (%)
Work for others	10.7	11.9	18.9	20.2	38.3
Self-business	22.6	13.2	17.3	16.0	30.9
Studies	12.3	11.1	18.1	18.9	39.5
Training	12.3	14.4	24.3	18.5	30.5
Personal or household financial structure	2.5	21.0	8.2	28.0	40.3

Note: NI = No Impact, SI = Slightly Impacted, MI = Moderately Impacted, SoI = Somewhat Impacted, and StI = Strong Impact

4.7. Multiple Comparison of Impact between Groups

4.7.1. Impact of Covid on Young Adults in Ghana by Gender

The analysis of variance results revealed statistically significant differences in gender for several variables studied, including behavioural change, health and labour and finance variables. For behaviour change, variables such as Daily routines ($F_{2,483} = 4.5$, $p=0.01$), Hygiene practices ($F_{2,483} = 6.25$, $p=0.002$), Exercise routines ($F_{2,483} = 3.12$, $p=0.045$), Travel behaviour ($F_{2,483} = 4.33$, $p=0.014$), and Outdoor activities ($F_{2,483} = 6.7$, $p=0.001$), as well as Social and Cultural norms ($F_{2,483} = 10.59$, $p<0.001$), were found to vary significantly between the various gender groups as shown in Table 5. For Health variables only breathing problems ($F_{2,483} = 5.23$, $p=0.006$) was found to vary significantly between gender while work for other ($F_{2,483} = 7.08$, $p=0.001$) and business of people ($F_{2,483} = 3.72$, $p=0.025$) were the variables that varied significantly by gender for labour and finance as shown in Table 5 with multiple comparisons of means between groups using Tukey HSD test at a 95% confidence interval (i.e., $p=0.05$).

Table 5: ANOVA Summary table for the impact of COVID on various life aspects of young adults by gender

			Sum of Squares	df	Mean Square	F	Sig.
Behavioural Changes	Daily routines	Between Groups	13.10	2.00	6.55	4.35	0.013
		Within Groups	728.05	483.00	1.51		
	Hygiene practices	Between Groups	20.11	2.00	10.05	6.25	0.002
		Within Groups	776.99	483.00	1.61		
	Diet practices	Between Groups	2.50	2.00	1.25	0.79	0.453
		Within Groups	762.65	483.00	1.58		
	Exercise routines	Between Groups	10.31	2.00	5.15	3.12	0.045
		Within Groups	798.29	483.00	1.65		
	Social activities	Between Groups	0.99	2.00	0.49	0.31	0.731
		Within Groups	760.35	483.00	1.57		
	Travel behaviour	Between Groups	16.46	2.00	8.23	4.33	0.014
		Within Groups	918.22	483.00	1.90		
	Outdoor activities	Between Groups	21.92	2.00	10.96	6.70	0.001
		Within Groups	790.54	483.00	1.64		
	Social and Cultural norms	Between Groups	33.15	2.00	16.58	10.59	<0.001
		Within Groups	756.18	483.00	1.57		

Table 5: Continue

			Sum of Squares	df	Mean Square	F	Sig.
Health issues	Stress and anxiety	Between Groups	0.13	2.00	0.07	0.04	0.964
		Within Groups	885.20	483.00	1.83		
	Depression	Between Groups	0.62	2.00	0.31	0.16	0.851
		Within Groups	936.58	483.00	1.94		
	Sleeping disorder	Between Groups	1.82	2.00	0.91	0.46	0.629
		Within Groups	947.22	483.00	1.96		
	Post-traumatic stress disorder	Between Groups	3.86	2.00	1.93	1.07	0.343
		Within Groups	869.47	483.00	1.80		
	Other mental issues	Between Groups	0.15	2.00	0.07	0.04	0.959
		Within Groups	857.74	483.00	1.78		
	Breathing	Between Groups	20.80	2.00	10.40	5.23	0.006
		Within Groups	960.55	483.00	1.99		
	Smell and/or taste	Between Groups	9.97	2.00	4.98	2.59	0.076
		Within Groups	930.63	483.00	1.93		
	Mobility	Between Groups	10.31	2.00	5.15	2.28	0.104
		Within Groups	1092.77	483.00	2.26		

Table 5: Continue

			Sum of Squares	df	Mean Square	F	Sig.
Health issues	Other physical aspects	Between Groups	6.99	2.00	3.49	1.74	0.176
		Within Groups	968.72	483.00	2.01		
Labour and Finance	Work for others	Between Groups	26.00	2.00	13.00	7.08	0.001
		Within Groups	886.81	483.00	1.84		
	Self-business	Between Groups	17.67	2.00	8.83	3.72	0.025
		Within Groups	1146.15	483.00	2.37		
	Studies	Between Groups	2.37	2.00	1.19	0.59	0.552
		Within Groups	963.97	483.00	2.00		
	Training	Between Groups	2.81	2.00	1.41	0.75	0.475
		Within Groups	910.14	483.00	1.88		
	Personal or household financial structure	Between Groups	5.20	2.00	2.60	1.72	0.181
		Within Groups	732.28	483.00	1.52		

4.7.2. Variation in the Impact of COVID-19 on Young Adults by Age

Table 6 shows the analysis of variance result revealed statistically significant differences in age for several variables studied, including behavioural change, health as well as labour and finance variables. For behaviour change, variables such as Daily routines ($F_{3,482} = 2.50$, $p=0.05$) Hygiene practices ($F_{3,482} = 2.50$, $p=0.05$), Exercise routines ($F_{3,482} = 3.20$, $p=0.023$), Travel behaviour ($F_{3,482} = 8.54$, $p<0.001$), Outdoor activities ($F_{3,482} = 6.28$, $p<0.001$) as well as Social and Cultural norms ($F_{3,482} = 4.81$, $p=0.003$) were found to vary significantly between the various age groups. For health variables only Stress and anxiety ($F_{3,482} = 3.58$, $p=0.014$) as well as breathing problems ($F_{3,482} = 2.77$, $p=0.041$) was found to vary significantly between age groups while work for other ($F_{3,482} = 6.87$, $p<0.001$), business of people ($F_{3,482} = 3.86$, $p=0.010$), studies ($F_{3,482} = 3.56$, $p=0.014$) and personal or household financial structure ($F_{3,482} = 4.29$, $p=0.005$) were the variables that varied significantly by age as shown in Table 6 with multiple comparisons of means between groups using Tukey HSD test at a 95% confidence interval (i.e., $p=0.05$).

Table 6: ANOVA Summary table for the impact of COVID on various life aspects of young adults by age

	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
Behavioural Changes	Daily routines	Between Groups	11.38	3.00	3.79	2.50	0.058
		Within Groups	729.77	482.00	1.51		
	Hygiene practices	Between Groups	32.94	3.00	10.98	6.93	<0.001
		Within Groups	764.16	482.00	1.59		
	Diet practices	Between Groups	2.54	3.00	0.85	0.54	0.658
		Within Groups	762.61	482.00	1.58		
	Exercise routines	Between Groups	15.81	3.00	5.27	3.20	0.023
		Within Groups	792.79	482.00	1.64		
	Social activities	Between Groups	10.83	3.00	3.61	2.32	0.075
		Within Groups	750.50	482.00	1.56		
	Travel behaviour	Between Groups	47.18	3.00	15.73	8.54	<0.001
		Within Groups	887.50	482.00	1.84		
	Outdoor activities	Between Groups	30.54	3.00	10.18	6.28	<0.001
		Within Groups	781.92	482.00	1.62		
	Social and Cultural norms	Between Groups	22.94	3.00	7.65	4.81	0.003
		Within Groups	766.40	482.00	1.59		

Table 6: Continue

Health-related issues	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
	Stress and anxiety	Between Groups	19.28	3.00	6.43	3.58	0.014
		Within Groups	866.05	482.00	1.80		
	Depression	Between Groups	1.48	3.00	0.49	0.25	0.858
		Within Groups	935.72	482.00	1.94		
	Sleeping disorder	Between Groups	1.17	3.00	0.39	0.20	0.897
		Within Groups	947.87	482.00	1.97		
	Post-traumatic stress disorder	Between Groups	11.45	3.00	3.82	2.13	0.095
		Within Groups	861.89	482.00	1.79		
	Other mental issues	Between Groups	11.84	3.00	3.95	2.25	0.082
		Within Groups	846.05	482.00	1.76		
	Breathing Problems	Between Groups	16.62	3.00	5.54	2.77	0.041
		Within Groups	964.73	482.00	2.00		
	Smell and/or taste	Between Groups	12.92	3.00	4.31	2.24	0.083
		Within Groups	927.67	482.00	1.92		
	Mobility	Between Groups	5.59	3.00	1.86	0.82	0.484
		Within Groups	1097.49	482.00	2.28		

Table 6: Continue

	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
Labour and Finance	Other physical aspects	Between Groups	11.36	3.00	3.79	1.89	0.130
		Within Groups	964.34	482.00	2.00		
	Work for others	Between Groups	37.42	3.00	12.47	6.87	<0.001
		Within Groups	875.39	482.00	1.82		
	Self-business	Between Groups	27.28	3.00	9.09	3.86	0.010
		Within Groups	1136.54	482.00	2.36		
	Studies	Between Groups	20.97	3.00	6.99	3.56	0.014
		Within Groups	945.37	482.00	1.96		
	Training	Between Groups	13.88	3.00	4.63	2.48	0.060
		Within Groups	899.08	482.00	1.87		
	Personal or household financial structure	Between Groups	19.18	3.00	6.39	4.29	0.005
		Within Groups	718.30	482.00	1.49		

4.7.3. Variation in the Impact of COVID-19 on Young Adults living in Rural and Urban areas in Ghana

Table 7 shows the analysis of variance result revealed statistically significant differences in residence location for several variables studied, including behavioural change, health as well as labour and finance variables. For behaviour change, variables such as Daily routines ($F_{1,485} = 25.55$, $p < 0.001$) Hygiene practices routines ($F_{1,485} = 22.39$, $p < 0.001$), Social activities ($F_{1,485} = 13.86$, $p < 0.001$), Travel behaviour routines ($F_{1,485} = 12.21$, $p < 0.001$), Outdoor activities routines ($F_{1,485} = 9.79$, $p < 0.001$), as well as Social and Cultural norms routines ($F_{1,485} = 10.91$, $p < 0.001$) were found to vary significantly between rural and urban areas of residence. For health variables only Stress and anxiety routines ($F_{1,485} = 10.47$, $p < 0.001$), as well as breathing problems routines ($F_{1,485} = 7.26$, $p < 0.001$) were found to vary significantly between rural and urban areas of residence while all variables studied under labour and finances were found to significantly vary between rural and urban areas of residence as shown in Table 7.

Table 7: ANOVA Summary table for the impact of COVID on various life aspects of young adults by residential status

	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
Behavioural Change	Daily routines	Between Groups	37.16	1.00	37.16	25.55	<0.001
		Within Groups	703.99	484.00	1.45		
	Hygiene practices	Between Groups	35.24	1.00	35.24	22.39	<0.001
		Within Groups	761.86	484.00	1.57		
	Diet practices	Between Groups	4.22	1.00	4.22	2.69	0.10
		Within Groups	760.93	484.00	1.57		
	Exercise routines	Between Groups	1.86	1.00	1.86	1.11	0.29
		Within Groups	806.73	484.00	1.67		
	Social activities	Between Groups	21.19	1.00	21.19	13.86	<0.001
		Within Groups	740.14	484.00	1.53		
	Travel behaviour	Between Groups	22.99	1.00	22.99	12.21	<0.001
		Within Groups	911.69	484.00	1.88		

Table 7: Continue

Behavioural Change	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
	Outdoor activities	Between Groups	16.10	1.00	16.10	9.79	<0.001
		Within Groups	796.36	484.00	1.65		
	Social and Cultural norms	Between Groups	17.40	1.00	17.40	10.91	<0.001
		Within Groups	771.93	484.00	1.59		
Health-related Issues	Stress and anxiety	Between Groups	18.74	1.00	18.74	10.47	<0.001
		Within Groups	866.59	484.00	1.79		
	Depression	Between Groups	0.00	1.00	0.00	0.00	0.97
		Within Groups	937.20	484.00	1.94		
	Sleeping disorder	Between Groups	7.22	1.00	7.22	3.71	0.05
		Within Groups	941.82	484.00	1.95		
	Post-traumatic stress disorder	Between Groups	1.44	1.00	1.44	0.80	0.37
		Within Groups	871.89	484.00	1.80		
	Other mental issues	Between Groups	0.01	1.00	0.01	0.01	0.93
		Within Groups	857.88	484.00	1.77		

Table 7: Continue

Health-related Issues	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
	Breathing	Between Groups	14.49	1.00	14.49	7.26	0.01
		Within Groups	966.86	484.00	2.00		
	Smell and/or taste	Between Groups	7.07	1.00	7.07	3.67	0.06
		Within Groups	933.52	484.00	1.93		
	Mobility	Between Groups	1.01	1.00	1.01	0.44	0.51
		Within Groups	1102.07	484.00	2.28		
	Other physical aspects	Between Groups	0.00	1.00	0.00	0.00	0.99
		Within Groups	975.70	484.00	2.02		

Table 7: Continue

Labour and Finance	Behaviour Variable		Sum of Squares	df	Mean Square	F	Sig.
	Work for others	Between Groups	48.19	1.00	48.19	26.98	<0.001
		Within Groups	864.62	484.00	1.79		
	Self-business	Between Groups	14.79	1.00	14.79	6.23	0.01
		Within Groups	1149.03	484.00	2.37		
	Studies	Between Groups	12.75	1.00	12.75	6.47	0.01
		Within Groups	953.59	484.00	1.97		
	Training	Between Groups	19.96	1.00	19.96	10.82	<0.001
		Within Groups	892.99	484.00	1.85		
	Personal or household financial structure	Between Groups	18.53	1.00	18.53	12.47	<0.001
		Within Groups	718.96	484.00	1.49		

4.8. Coping mechanisms adopted to minimize the impacts of COVID on young adults

Table 8 shows the kind of coping mechanisms adopted to minimize the impacts of COVID-19 on the young adults of Ghana. The young adults adopted several ways to minimize the impacts of COVID on them. With regards to behavioural changes, the highest number of young adults representing 30.5% did what seemed to be the right thing to them while 25.9% of them sought help/information from social media. On the issues of health, 35.0% of the young adults in Ghana took no action to address the challenges while 21.8% did what seemed to be the right thing for them. The majority of the young adults (32.6%) seek help/information from social media to address their labour and financial challenges while 11.5% seek help/information from the local authorities as shown in Figure 1.

Table 8: Kinds of coping mechanisms adopted to minimize the impacts of COVID on the young adults of Ghana

Variable	None	Seek help/information on social media	Seek help/information from the local authorities/ healthcare services	Seek help/information from family or friends	Done what seemed to be the right thing
Behavioural Changes	14.2%	25.9%	16.3%	13.2%	30.5%
Health Challenges	35.0%	14.3%	14.9%	14.0%	21.8%
Labour and Financial Challenges	17.4%	32.6%	11.5%	12.9%	25.7%

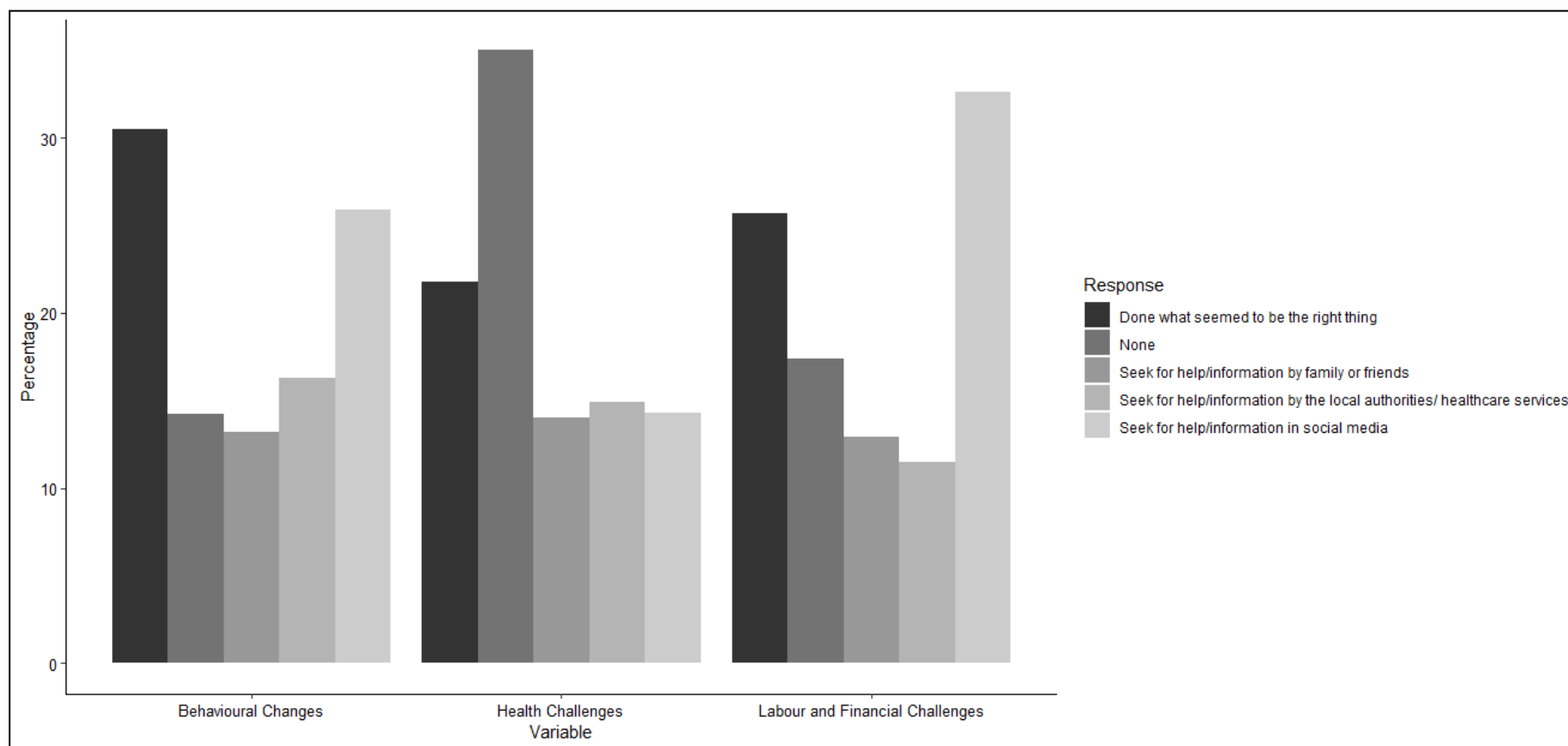


Figure 1: Coping mechanisms adopted to minimize the impacts of covid on the young adults of Ghana

4.9. Perceptions about State Interventions and Government policies in response to the pandemic

Table 9 shows participants' perceptions about how effective some public service responded to the pandemic. Generally, 35.0% of the young adults believed that the health service was very effective in responding to the pandemic. 28.4%, 29.2% and 27.2% remained neutral on the effectiveness of local authorities, employment services and municipal services in responding to the pandemic while 32% believe in general information provided by public services.

Table 9: Summary of response to how effective public services were in responding to COVID-19

Public services	Very ineffective	Somewhat ineffective	Neutral	Somewhat effective	Very effective
Healthcare services	7.4	9.9	21.8	25.9	35.0
Local authorities	7.8	16.5	28.4	22.6	24.7
Employment services	14.8	16.5	29.2	20.2	19.3
Municipal services	11.5	19.3	27.2	23.5	18.5
General information provided by public services	8.6	11.5	21.4	26.3	32.1

CHAPTER FIVE

DISCUSSION

5.1. Introduction

This chapter presents a comprehensive analysis and interpretation of the research findings obtained through rigorous investigation and data analysis. This section aims to provide a deeper understanding of the research outcomes, contextualize the results within the broader academic landscape, and address the research objectives as well as the relationship between some of the models in the literature review. By critically examining the key findings and drawing connections with relevant literature, this chapter seeks to shed light on multifaceted ways in which the pandemic has influenced the behaviours, attitudes, and perceptions of young adults and what potential implications these changes may have on their future social interactions, lifestyle choices, and overall well-being on the implications of the study's outcomes and their significance in advancing knowledge in the field. Additionally, the discussion explores the limitations of the study and offers recommendations for future research, thereby contributing to the ongoing dialogue surrounding the subject matter.

5.2. Changes in social behaviour among young adults in Ghana as a result of the pandemic

The purpose of this study was to investigate the post-COVID-19 behavioural changes among young adults in Ghana. Specifically, to assess the changes in social behaviour, health challenges, labour and financial challenges among young adults in Ghana due to the pandemic as well as identify the coping mechanisms employed by young adults in Ghana to manage the effects of the pandemic.

First on changes in social behaviour, the study found clearly that COVID has impacted various aspects of the behaviour of young adults such as daily routines, hygiene practices, diet practices as well as social and cultural norms. The impact varies from slight impacts to strong impacts. This is consistent with the findings of studies by Gallagher *et al.*, (2021) who found that the pandemic had led to significant changes in health-related behaviours such as increased hand hygiene, use of face masks, and social distancing. Another study by Fountoulakis *et al.*, (2021) in Greece reported similar findings, with respondents reporting increased adherence to hygiene practices and physical distancing measures.

In Ghana, studies have also reported significant changes in behaviour because of the pandemic. For instance, a study conducted by Adu *et al.*, (2021) found that the pandemic had led to increased adherence to hand hygiene practices among the Ghanaian population. Similarly, a study by Janssen *et al.*, (2021) reported that the pandemic had led to changes in food consumption patterns, with individuals consuming more local and traditional foods to boost their immune systems. This confirms the Social Cognitive Theory which suggests that behaviour change occurs when individuals have the knowledge and skills to engage in new behaviour, are motivated to change their behaviour, and have the opportunity and environmental support to do so. The study also found significant differences in gender for behavioural change variables such as Daily routines and hygiene practices. These variables were found to have been impacted more by males than females. This could be a result of the sample population as more males were found to have responded to the questionnaire than females.

5.3. Impact of COVID on the Health Issues among Young Adults in Ghana

The study found that COVID-19 has impacted different aspects of the health of young adults in Ghana. 26% of respondents reported that COVID made them stressed or anxious, 28% reported that COVID did not cause them to be depressed, and 51.9% reported not having had other mental disorders as a result of COVID-19. Breathing problems, smell or taste problems were found to be symptoms of the novel coronavirus infection hence, the majority of the respondents reported no impact as such. The study adds to the growing body of evidence suggesting that COVID has had a tremendous impact on the health of young adults in Ghana and worldwide (Adu *et al.*, 2021; John *et al.*, 2020; Pieh *et al.*, 2020; Weobong *et al.*, 2022). For instance, a study by Boateng *et al.*, (2021) provided evidence of the changes in boredom, anxiety and psychological well-being during the COVID-19 pandemic and studies by Adom *et al.*, (2020) whose studies identified the prevalence and correlates of depression symptoms in Ghana during the COVID-19 pandemic. Although studies by Nearchou *et al.*, (2020) show that COVID-19 has an impact on young adults' mental health and is particularly associated with depression and anxiety in adolescent cohorts. This shows the young adults of Ghana, in terms of health experienced similar levels of health issues as the other populations in the country.

Similarly, the study also found significant differences in gender for the health variables breathing problems. More males were found to have been impacted by the coronavirus in terms of breathing as they now have to put on masks in public spaces. This may have posed challenges to the ease of breathing.

5.4. Labour and financial challenges among young adults in Ghana due to the pandemic

The study shows that the highest number of participants reported that COVID-19 has had a strong impact on their personal or household financial structure by impacting their studies, work, business and training. Most of them have either stopped working, or schooling and even those learning trades have to abandon the quest as a result of the COVID-19 pandemic. This has put pressure on their finance, as many are unable to meet their financial needs. This is already evidenced in a study by Asante *et al.*, (2022) who reported that the social hazards of covid in Ghana are mainly circumscribed relating to poor economic conditions due to job losses, lack of access to income/savings, food insecurity, and lack of welfare support. This impact has not only been reported in Ghana but also a study by Moen *et al.*, (2020) reported that the COVID-19 pandemic has produced disparate life-course impacts, with increases in unemployment and being out of the workforce at all ages, but especially among young adults across the world.

Also, the study found significant differences in gender for labour and financial variables such as the work of individuals and others, a significant number of the respondents were found to have lost their jobs and business as a result of the coronavirus pandemic. This is because during the pandemic a lot of measures were put in place to reduce the speed of the virus some of these measures included closure of business and construction firms (Amoah *et al.*, 2022). This caused businesses to lay off workers. Considering that the young adults form the majority of the working group, it is not surprising that the COVID-19 pandemic significantly affected most of the young adults in Ghana.

5.5. Variation in the Impact of COVID on Young Adults living in Rural and Urban areas in Ghana

The results from the analysis of variance on the impact of COVID-19 on young adults living in rural and urban areas of Ghana indicate several significant differences between these two groups across various aspects of their lives. The study found significant differences in behavioural changes between young adults in rural and urban areas. This includes changes in daily routines, hygiene practices, social activities, travel behaviours, outdoor activities, and adherence to social and cultural norms. These variations suggest that the pandemic has influenced how young adults in these different settings have adapted their behaviours to mitigate the risk of COVID-19 as reported by Constant *et al.*, (2020). Among health-related variables, stress and anxiety routines and breathing problems routines were found to significantly vary between rural and urban areas. This indicates that the psychological and physical health impact of the pandemic may differ among young adults in these two settings. Urban areas may have more stressors related to the pandemic, while rural areas may have different challenges related to access to healthcare and environmental factors as found in studies by Pandey & Saxena (2020).

Additionally, the study found that the variables studied under labour and finances were found to significantly vary between rural and urban areas. This suggests that young adults in these areas have experienced distinct challenges in terms of employment, income, and financial stability due to the pandemic (Cuervo *et al.*, 2022). These variations could be attributed to differences in job opportunities, economic structures, and access to financial resources in rural and urban settings as reported by Agrawal & Bütikofer (2022).

5.6. Coping Mechanisms Employed by Young Adults in Ghana to Manage the Impact of the Pandemic

The results show that the young adults adopted different kinds of coping mechanisms to minimize the impacts of COVID-19 on their behaviour, health, and finances. The young adults adopted several ways to minimize the impacts of COVID-19 on them. With regards to behavioural changes, the highest number of young adults did what seemed to be the right thing to them while others sought help/information from social media. On the issues of health, the young adults in Ghana took no action to address the challenges while others did what seemed to be the right thing for them. Majority of the young adults seek help/information from social media to address their labour and financial challenges while

others seek help/information from the local authorities. This shows that social media became a relevant tool for you in addressing most of the challenges imposed on them as a result of the COVID-19 pandemic. This is not an isolated case as previous studies have confirmed the rise in the use of social media by young adults in addressing challenges during the pandemic (Abbas *et al.*, 2021; Al-Dmour *et al.*, 2020; Badr *et al.*, 2022; Zhou *et al.*, 2022). This finding agrees with the HBM which proposes that the perception of a personal health behaviour threat is influenced by at least three factors, general health values, which include interest and concern about health; specific health beliefs about vulnerability to a particular health threat; and beliefs about the consequences of the health problem (Hochbaum *et al.*, 1952). If a person perceives a threat to their health, is consecutively cued to action, and their perceived benefits outweigh the perceived barriers, then they are likely to undertake the recommended preventive health action.

Local authorities such as healthcare services, employment services, and municipal services played an important role in providing general information regarding ways to cope with the pandemic. However, the majority of the young adults believed that the health service and general information provided by the public were very effective in responding to the pandemic while they remained neutral to the effectiveness of local authorities, employment services and municipal services in responding to the pandemic. Irrespective of this, most young adults believe that local authorities should continue with public education and provide realistic information as well as encourage work from home to minimize the negative impacts of such a crisis on people's lives post-COVID-19.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The conclusion drawn from the presented research findings is that the COVID-19 pandemic has significantly impacted the behaviours, attitudes, and perceptions of young adults in Ghana. The study has shed light on the multifaceted ways in which the pandemic has influenced various aspects of their lives, including social behaviour, health issues, and financial challenges. These findings are in line with existing literature and contribute to the growing body of evidence on the pandemic's effects on young adults in Ghana and worldwide.

Regarding changes in social behaviour which is the first objective of the study, this objective was achieved as the study revealed that the pandemic has led to notable shifts in daily routines, hygiene practices, and diet habits among young adults in Ghana. The observed changes align with findings from other studies conducted internationally, demonstrating a global pattern of behaviour modification in response to the pandemic. Notably, the study also highlighted gender differences in the impact of the pandemic on behavioural changes, with more males experiencing significant effects.

Concerning objective two which was to assess the impact of the pandemic on health issues, the research highlighted that COVID-19 has had a significant impact on the mental well-being of young adults in Ghana. Stress, anxiety, and depression were reported by a notable percentage of respondents. Breathing problems, as a symptom of the virus, affected a larger proportion of participants. These findings corroborate with studies conducted in other countries, pointing to the universal psychological impact of the pandemic on young adults.

The study also revealed profound labour and financial challenges faced by young adults in Ghana due to the pandemic. Many participants reported job losses, interruptions in their studies, and financial strain. This finding aligns with research conducted globally, emphasizing the adverse economic consequences of the pandemic on the young adult population.

On the positive side, the study identified various coping mechanisms employed by young adults to manage the effects of the pandemic. Social media emerged as a significant tool for seeking help, information, and support during these challenging times. Local authorities, healthcare services, and employment services also played vital roles in providing guidance and information, although some participants were neutral on their effectiveness.

In conclusion, this research adds valuable insights into the effects of the COVID-19 pandemic on young adults in Ghana, contributing to the understanding of their behavioural, health, and financial responses. The findings highlight the importance of targeted support and interventions to address the challenges faced by this demographic group. Moreover, the study emphasizes the role of social media and local authorities in disseminating information and providing assistance during crises. As we move forward, continued efforts are needed to mitigate the long-term impacts of the pandemic on the well-being and prospects of young adults in Ghana.

6.2. Recommendation

Based on the findings presented in the study regarding the changes in social behaviour, health challenges, labour, and financial challenges among young adults in Ghana due to the COVID-19 pandemic, we propose the following key recommendations:

1. **Public Health Awareness:** Given the significant impact of COVID-19 on social behaviour, it is essential for authorities to continue public health awareness campaigns to reinforce positive health-related behaviours.
2. **Mental Health Support:** The study highlights that COVID-19 has had a notable impact on the mental health of young adults in Ghana. To address this issue, there is a need for increased mental health support and interventions. The provision of accessible mental health services, counselling, and support groups can help alleviate stress, anxiety, and depression caused by the pandemic on the lives of young adults.
3. **Economic Support:** The pandemic has led to significant labour and financial challenges among young adults in Ghana, with many losing their jobs and experiencing financial strain. Governments and relevant organizations should implement targeted economic support measures to aid young adults in recovering

from the pandemic's economic impacts. This may include job placement programs, financial assistance, and skill-building initiatives.

4. **Social Media as a Resource:** The study reveals that social media played a crucial role as a coping mechanism for young adults during the pandemic. Recognizing the significance of social media as an information source, health authorities and organizations should continue leveraging social media platforms to disseminate accurate and timely information on COVID-19 and other health-related issues.

We believe that implementing the above recommendations can help address the challenges faced by this demographic and foster a more resilient and adaptable society in the post-pandemic era.

6.3. Limitations and Directions for future research

There are several limitations to this study on post-COVID-19 behavioural changes among young adults in Ghana. One major limitation is the potential for selection bias, as the study only include participants who have access to internet and are willing to participate in an online survey. This could result in a sample that is not representative of the entire population of young adults in Ghana.

Another limitation is the potential for recall bias, as participants may not accurately remember their behaviour changes during the pandemic, particularly as the pandemic continues for an extended period. Additionally, the study relies on self-reported data, which may be subject to social desirability bias, where participants provide answers that they perceive to be socially acceptable rather than their actual behaviour. Furthermore, the study only focus on young adults in Ghana, which limits the generalizability of the findings to other age groups or populations in different countries.

Finally, the study's reliance on an online survey could lead to issues of data quality, or inaccurate data due to technical difficulties or misunderstanding of survey questions by respondents. Despite these limitations, this study provides valuable insights into the behavioural changes among young adults in Ghana during the COVID-19 pandemic.

From the study and its limitations, we propose the following recommendations for future research in this field:

1. **Comparative Studies:** Conduct comparative studies between different age groups to understand how the impact of the pandemic varies across generations. By comparing the experiences of young adults with other age groups, researchers can identify unique challenges and coping mechanisms specific to this demographic.
2. **Mental Health Interventions:** Given the reported stress, anxiety, and depression among young adults, there is a need for research to explore effective mental health interventions tailored to this population. Investigating the feasibility and effectiveness of telehealth services or online mental health support can address mental health issues exacerbated by the pandemic.
3. **Gender-based Research:** Delve deeper into the gender differences observed in the study's variables. Explore the underlying factors contributing to the gender disparities in social behaviour changes, health challenges, and labour/financial impacts. This will help in developing targeted interventions to address specific challenges faced by young men and women.
4. **Resilience and Coping Mechanisms:** Further research is warranted to understand the factors that contribute to the resilience of young adults in Ghana during times of crisis. Investigate the effectiveness of various coping mechanisms, including social media engagement, and identify protective factors that promote positive adaptation to adverse situations.

By addressing these areas of research, scholars can contribute to a comprehensive understanding of the pandemic's impact on young adults in Ghana and inform evidence-based strategies to support and enhance the well-being of this critical demographic.

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Appendix A

Questionnaire

Dear Participant,

The following questionnaire makes part of an academic research under the scope of a master dissertation in Management.

This study aims to investigate how the pandemic affected the lives of young adults in the Ghana. Your participation will contribute to a better understanding of some of those impacts.

To complete this questionnaire, it will take you 4 to 6 minutes.

All information provided in this survey will be kept confidential, and only the research team will have access to the data. Thank you for considering participation in this study.

Your input is essential, and we appreciate your time and effort.

Sincerely,

*All the questions are mandatory.

Section A: Demographic Information*

Age:

- 18-25 years
- 26-33 years
- 34-41 years
- 42-49 years

Gender:

- Male
- Female
- Prefer not to say.

Education level:

- High school or equivalent
- Some college or trade school
- Bachelor's degree

- Master's degree or higher

Employment status:

- Employed full-time.
- Employed part-time.
- Self-employed
- Unemployed
- Student
- Retired
- Other (please specify)

Marital status:

- Single
- Married
- Divorced
- Widowed
- Prefer not to say.

Local of residence:

- Rural
- Urban

Section B: Behavioural Changes*

In this section we aim to understand how the pandemic affected the lives of young adults, in general, and strategies used to minimize impacts.

Scale: 1= no impact ; 5= Strong impact

1. How did COVID-19 impact the following aspects of your life?

	No impact (1)	2	3	4	Strong impact (5)
Daily routines					
Hygiene practices					
Diet practices					
Exercise routines					
Social activities					
Travel behaviour					
Outdoor activities					
Social & cultural norms					

2. What kind of coping mechanisms were adopted to minimize the impacts?

	None	Seek help/information on social media	Seek help/information from the local authorities	Seek help/information from family or friends	Done what seemed to be the right thing
Daily routines					
Hygiene practices					
Diet practices					
Exercise routines					

Social activities					
Travel behaviour					
Outdoor activities					

Section c: Health issues*

This section aims to understand how Covid affected the health of young adults, in general, and to evaluate how young adults dealt with it.

3. Did covid impact in your health through the following aspects?

	No impact (1)	2	3	4	Strong impact (5)
Stress & anxiety					
Depression					
Sleeping disorder					
Post traumatic stress disorder					
Other mental issues					
Breathing problems					
Smell or taste problems					
Mobility problems					
Other physical problems					

4. What kind of coping mechanisms were adopted to minimize the impacts

	None	Seek for help/information in social media	Seek for help/information by the healthcare services	Seek for help/information by family or friends	Done what seemed to be the right thing
Stress & anxiety					
Depression					
Sleeping disorder					
Post traumatic stress disorder					

Other mental issues					
Breathing problems					
Smell or taste problems					
Mobility problems					
Other physical problems					

Section D: Labour & Financial questions.*

In this section is aimed to assess impacts in employment/education status, revenues and understand coping mechanisms used.

5. How did Covid impact in your work/studies?

	No impact (1)	2	3	4	Strong impact (5)
Work for others					
Self-business					
Studies					
Training					
Personal or household financial structure					

6. What kind of coping mechanisms were adopted to minimize the impacts

	None	Seek for help/information by the local authorities	Seek for help/information by family or friends	Adopt new technologies	Adapt to the new circumstances
Work for others					
Self-business					
Studies					
Training					
Personal or household financial structure					

Section E: Perceptions about state interventions, government policies facing the pandemic*

In this section is aimed to understand perceptions about the way public services respond to the pandemic.

Scale: 1= Very ineffective; 5= Very effective

7. How effective was the intervention/responses of the following public services?

	Very ineffective (1)	2	3	4	Very effective (5)
Healthcare services					
Local authorities (e.g. police)					
Employment services					
Municipal services					
General information provided by public services					