UNIVERSITY OF CAPE COAST

LIFE COURSE AND RETIREMENT PLANNING OF HEALTHCARE WORKERS IN PUBLIC HOSPITALS IN THE ACCRA METROPOLIS, GHANA

JENNIFRED MAURICE ADJEI

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BY

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Thesis submitted to the Department of Integrated Development Studies of the School for Development Studies, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfillment of the requirements for the award of Doctor of Philosophy degree in Development Studies

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Signature …… Date ……..……..

Candidate's Name: Jennifred Maurice Adjei

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature ……. Date ……

Supervisor's Name: ……..

Co-Supervisor's Signature …… Date ……

Name: ……

ABSTRACT

The research examined the effect of life course on retirement planning of healthcare workers in public hospitals in the Accra metropolis, Ghana. The rational choice, life cycle and life course theories were used in explaining the study, which also employed the mixed method research. The study design was cross-sectional survey. A sample size of 660 healthcare workers were selected using stratified and simple random sampling. Quantitative primary data were collected from the workers using questionnaire. Frequencies, means, chi-square tests, and structural equation modelling were employed to analyse the quantitative data. Qualitative primary data were also collected from purposively sampled key informants in the pension industry using interview guides. Thematic analysis was performed by identifying patterns and themes in the qualitative data gathered. The study found that less than half of healthcare workers have individual retirement accounts (IRAs). Among those with IRAs, frequent withdrawals were made on their accounts. Healthcare workers who have higher level of education and earn high incomes planned their retirement. Healthcare workers have made adequate retirement plans over the life course, but these plans are not linked to their statutory retirement ages. The more pension schemes are transparent, the more healthcare workers are willing to plan their retirement. It is recommended that healthcare workers should collaborate with their associations to engage with pension fund administrators to design retirement educational programmes that link their retirement plans to the statutory retirement age. The NPRA should also implement strategies that enhance transparency through the disclosure of investment information to healthcare workers.

KEYWORDS

Account

Attitude

Pension

Retirement

Trustees

Wealth

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DEDICATION

To my wife, Mrs. Efua Boatemaa Adjei and my wonderful children, Christian Jennifred Nyamekye-Adjei and Jude Peter Nyameyie Adjei.

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LIST OF ABBREVIATIONS

CDWA	Colonial Development and Welfare Act
GARH	Greater Accra Regional Hospital
GHS	Ghana Health Service
GUSS	Ghana Universities Staff Superannuation Schemes
IEA	Institute of Economic Affairs
ILO	International Labour Organisation
IRA	Individual Retirement Account
KBTH	Korle-Bu Teaching Hospital
LCH	Life Cycle Hypothesis
LCT	Life Course Theory
NPRA	National Pensions Regulatory Authority
OECD	Organisation for Economic Cooperation and Development
PFA	Pension Fund Administrator
PFM	Pension Fund Manager
RCT	Rational Choice Theory
SDGs	Sustainable Development Goals
SSNIT	Social Security and National Insurance Trust
TPO	Teacher's Pension Ordinance
USA	United States of America
UGMC	University of Ghana Medical Centre
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

Saving for retirement, as noted by Sablik (2016) in the life cycle theory, creates opportunities for people to accumulate wealth to meet the basic needs of life and guarantee economic security during retirement. As individuals take it upon themselves to save for retirement, Valverde (2018) argues that welfare states are required to provide suitable structures that encourage people to save. Regardless of the provision of the structures, Stoiko and Strough (2019) explain that individual choices over the life course, if not addressed, may lead to threatening welfare standards of healthcare workers during retirement.

Healthcare workers across the globe play critical roles in improving access and quality healthcare to individuals, families and communities, and this, according to the United Nations (2017) is needed in achieving Sustainable Development Goal 3. Due to their roles in society, they are required to be properly cared for during their working lives, in order to avoid old age poverty. The World Health Organisation (2018) notes that, the lack of attention to healthcare workers during their years of work, may discourage others from joining the service. Therefore, Wong, Osman, Wong, Lin and Ho (2019) assert that society is required to provide assistance to aid them plan their retirement during their active years of work. Hence, the importance of retirement planning for healthcare workers motivated the study.

Background of the Study

Clarkson, Dean, Ward, Komashie and Bashford (2018) note that, globally, the health sector is crucial in providing quality medical care that enhances people's physical, mental and social wellbeing. In addition, Nuhu, McDaniel, Alorbi and Ruiz (2018) assert that, the sector is known for the maintenance of human lives through the provision of health services, made possible by healthcare workers such as medical practitioners, pharmacists, nurses, midwives and physician assistants who work to achieve healthy lives for all individuals. Due to the essential services, the World Health Organisation (2018) notes that, adequate structures are needed for healthcare workers to meet the basic needs of life and guarantee them income security during retirement so that others may be motivated to join the health sector. One way of guaranteeing economic security to healthcare workers is through the accumulation of wealth during their active years of service.

Hira, Rock and Loibl (2009) argue that workers, during their active years of work, engage in income generating activities in order to save for retirement. The decision to save, as noted by Jackson (2009) and Sablik (2016), in relation to the life cycle theory, permits people to accumulate wealth to meet the basic needs of life, while guaranteeing economic security in retirement. The accumulated savings over the years help healthcare workers to account for life beyond their active years of work. In doing so, Afenyadu (2014) claims that, society ought to have the welfare of the healthcare worker in mind, by providing the requisite structures and opportunities for them to save so that they are able to account for life beyond the active years. In effect, activities over the life course of healthcare workers,

according to Aboalik (2017), has become increasingly important in retirement planning, due to the threatening welfare standards during retirement.

Hutchinson (2007) explains life course as a socially defined activity and roles that individuals enact over time. To Wang, Henkens and Van-Solinge (2011), life course activities include making conscious effort to save for retirement, putting in retirement plans for old age, developing relations with coworkers, friends, spouses, and families which allow individuals to build decent lives for retirement. Hershey, Henkens and Van Dalen (2010) also add that, life course activities include individuals having good financial attitude and states providing institutional structures that aid savings for retirement. These life course activities interact with each other to ensure that healthcare workers plan their retirement. According to Dewilde (2012), the link between life course and retirement planning is essential to help workers plan their retirement with the aim of improving welfare standards and eliminating poverty in retirement.

Ebbinghaus and Hofacker (2013) describe retirement planning as a process where workers engage in income generating activities with the aim of accumulating savings towards the period of retirement. The accumulated savings guarantee the basic needs of life for retirees by ensuring that their welfare is not threatened in retirement. In the view of Lusardi and Mitchell (2015), retirement planning is the decision of an individual to accumulate financial assets during his or her working life for the period of retirement. Specifically, Topa, Lunceford and Boyatzis (2018) argue that the accumulation of financial assets includes depositing money into retirement, savings and investment accounts. In addition, the accumulation of

financial assets comprises investments in pension schemes, treasury bills, shares, bonds, fixed deposits, and other financial instruments with the singular goal of using the accumulated funds to cater for expenses in retirement.

Stern (2012) notes that retirement planning is a necessity to the healthcare worker and every individual as explained by the categorical imperative philosophy. According to Wilson and Denis (2018), the categorical imperative philosophy, as introduced by Immanuel Kant, commands that, despite the differences in choices that people may have, every individual has a moral obligation to plan for retirement, no matter the circumstances or regardless of the situation. Kuitto, Kuivalainen and Mohring (2020) observe that, for individuals to assume the obligation of planning their retirement, governments are required to provide the necessary policies and structures needed to assist people achieve economic security. Li, Wang, Xu and Yuan (2020) also draw attention to the connection between welfarism philosophy and retirement planning.

Schulz-Forberg and Strath (2012) explain that welfarism is the view where states are centrally concerned with the welfare or well-being of individuals. In essence, welfarism involves policies and structures associated with a welfare state to protect and promote the economic and social well-being of citizens based on the principle of equal opportunity and public responsibility. DePreter, Van Looy and Mortelmans (2013) consider welfare states to guarantee individuals a minimum pension, narrowing the extent of insecurity and offering individuals the platform and opportunities that can help them plan and achieve the best standards of life. In this regard, the Organisation for Economic Cooperation and Development (2019)

argues that, the provision of adequate institutional structures and systems by welfare states influences individuals' retirement planning and improves well-being by eliminating poverty during old age.

Deaton (2005) notes that, while states provide the structures, healthcare workers are required to make rational decisions towards saving for retirement. Choi, Lugauer and Mark (2016) argue that the individual is at the centre of the decision-making process and that, all decisions regarding retirement plans are made based on access to full information, as provided by the rational choice theory. Additionally, Carman and Hung (2017) aver that individuals are to make decisions in the midst of preferences and constraints. The individual is required to make decisions on retirement plans by identifying alternatives, choosing the preferred option that results in the best outcome, and considering possible limits of each decision that may inhibit the choices in retirement planning.

Equally important to the rational choice theory in understanding retirement planning of healthcare workers are the life cycle and life course theories. Njunge (2013) argues in line with the life cycle theory, that individuals save for retirement during their active years of work, when their income exceeds consumption. The relevance of this, is to accumulate wealth while working and expend it in retirement. Brucker and Leppel (2013) and Mohring (2015) add that the decision by individuals to attain maximum satisfaction over the life cycle is influenced by income, age, and education, and that high income earners are able to save more for later life while smoothing out consumption.

Following from the arguments of the life cycle theory, Leisering (2003) and Sablik (2016) argue that, individual lives are interdependent within a social environment and that decisions are influenced by social, economic and institutional structures. Quadagno (2014) notes that, institutional structures are the pension systems of states that promote the accumulation of wealth for retirement. Therefore, Grech (2015) maintains that institutional structures provide adequate social security protection to aid healthcare workers in their retirement plans. Similarly, the International Labour Organisation (2014) and the World Bank (2016) identify that the ability of people to accumulate wealth, leading to income security at retirement, is dependent on institutional structures put up by government that ensures efficiency, adequacy, transparency, and sustainability.

Han and Sherraden (2007) explain that, efficiency focuses on pension reforms that facilitate the incentive for workers to save for retirement. It includes having flexible guidelines for healthcare workers to contribute towards their pension account, easiness in the operation of pension accounts and setting contributions at a lower amount that allow workers to save for retirement. Betti, Bettio, Georgiadis and Tinios (2015), on the other hand describe adequacy as the rate of return that the healthcare worker is expected to receive on the savings. In the same vein, Grimaldi (2018) notes that, while transparency deals with measures implemented to provide availability of information to contributors, sustainability implies the safety and security of pension funds. Guven (2019) notes that when institutional structures are efficient, adequate, transparent, and sustainable, workers will plan their retirement.

Kohli (2007) observes that, in life course studies, the interdependencies of lives of workers within social and economic environment influence future decisions. As a result of this, Altman (2008) notes that the socio-economic environment make retirement planning an essential tool for poverty reduction among healthcare workers within the development discourse. While Behaghel and Blau (2012) note that social factors are individuals' relationship with people, such as friends, families, spouses, and coworkers, economic factors are those forces that exist outside the individual and affect his or her financial status such as cost of living. Hudomiet, Rohwedder and Parker (2015) also add that, socio-economic factors include income, sex, education, age, and marital status. Koe and Ken (2018) contend that an individual's life is shaped by these socio-economic factors which create a connection between the individual and the activities of the wider society.

Hershey, Henkens and Van Dalen (2007) and Van-Solinge (2012) highlight those socio-economic factors such as education, income, age, marital status, and gender that impact on workers' retirement planning. In addition, Mohd, Chor, Noor and Mohd (2017) show that workers who are married, earn high income, and have attained high educational level are able to plan their retirement. Moreover, Lusardi, Mitchel and Oggero (2018) emphasise that the educated, people who spend more years working, high income earners and adults, plan their retirement well in order to achieve income security during retirement. Therefore, Axelrad and Mcnamara (2018) argue that socio-economic factors inspire workers to plan for retirement. All things considered, Lusardi (2019) notes that, the inspiration is premised on the fact

that healthcare workers develop financial attitude over their life course and that impacts their retirement planning.

Ivancevich, Konopaske and Matteson (2008) explain financial attitude as the behaviour of individuals regarding finances that emanate from their background and environment. For instance, Hira, Rock and Loibl (2009) note that financial attitude encompasses financial knowledge, attitude towards retirement and financial risk tolerance. Grable, Roszkowski, So-Hyun, O'Neill and Lytton (2009) describe financial risk tolerance as the preparedness of an individual to engage in financial behaviour with unknown outcomes that have an identifiable undesirable result. For example, it includes how people easily undertake risky investments even when the chance of making losses is high. Remund (2010) also describes financial knowledge as the understanding that a person possesses in deciding financial matters, which includes the capability of people knowing how investments works and reviewing investment performance.

Furthermore, Lee and Kim (2016) explain attitude towards retirement as the behaviour put up by individuals that encourages them in their retirement plans. The attitude towards retirement entails the perspective of time that people have about the future and clarity in retirement goals. For instance, Jacob-Lawson, Hershey and Neukam (2008) itemised the perspective of time about the future as the advice people follow to save for the future, the certainty and clarity of future plans, and the time left for people to make retirement plans in life. Stawski, Hershey and Jacob-Lawson (2007) also identify retirement goal clarity as a clear set of retirement goals and vision, including ideas about how much people will spend in

retirement. Consequently, Lusardi, Michaud and Mitchell (2017) argue that workers with good financial attitude make the right decisions by planning for retirement.

Hershey, Henkens and Van Dalen (2010) showed that people who are financially knowledgeable, and tolerate less financial risk are able to plan their retirement. Additionally, Zeka and Matchaba-Hove (2016) also demonstrate that people who have clear retirement goals, good perspective of the future, and access to retirement information are able to put together retirement plans. In short, Boyetey (2019) maintains that financial attitudes of individuals help to remove all forms of barriers and constraints that hinder the participation of individuals in saving for retirement. Therefore, the World Bank (2018) indicates that if financial attitudes are not morally encouraged, the risk of vulnerability in retirement will increase, and this will also drive poverty to increase, which has general implications for healthcare workers and the wider society.

Accordingly, Anderson (2019) argues that retirement planning has become indispensable in international development discourse because it promotes improved well-being while eradicating poverty in old age. Wohrman, Fasbender and Deller (2016) and Stoiko and Strough (2019) maintain that, planning for retirement is necessary towards achieving the 1st and 3rd Sustainable Development Goals (SDGs). The United Nations (2017) highlights that the first sustainable development goal seeks to end poverty in all its forms everywhere (Goal 1, Target 1, 2, 3), while the third SDG seeks to ensure healthy lives and promote wellbeing at all ages (Goal 3, Target 8, 9d). In brief, there is evidence about the importance

of retirement planning over the life course in eliminating poverty, inequality, and vulnerability in old age.

Amaike (2016) notes that retirement planning provides support for empowering retirees economically in old age. In addition to the regular mandatory basic national pension for retirees, which provides minimum income in old age, planning for retirement will guarantee healthcare workers extra sources of income during retirement. These sources of income, as provided by Aboalik (2017), allow retirees to overcome poverty and attain improved standards of living by eliminating their susceptibility to economic shocks such as increase in prices of goods and services and medical expenditure. Behrendt and Nguyen (2018) have argued that the impact of sustaining basic mandatory pensions due to high government expenditure and insufficiency of basic pensions to meet the wide range of needs in retirement has driven the need for individuals to plan their retirement in order to avoid old age poverty.

As stated by Pogge (2005), the global goal of achieving adequate social protection and economic security in old age has been one of the most discussed issues of development by governments. In order to achieve this goal, Sharpe (2006) and the World Bank (2012) advocate for state's policies that can influence the accumulation of wealth during the working lives of workers. According to Okumura and Usui (2014), institutional structures, through the implementation of pension policies, influence the retirement planning of workers by enhancing their retirement benefits. Similarly, Behrendt and Nguyen (2018) show that when states provide effective pension policies, they become the foundation for workers to plan

and accumulate wealth, which helps them meet the basic needs of life in old age and improve their welfare by reducing poverty.

In the United States of America (USA), Bennett, Beehr and Lepisto (2016) have established that the interrelatedness between individuals' life course and pension systems is important in understanding the living conditions of older people. Besides, the World Bank (2016) asserts that pension benefits are the main source of income for retirees in developed welfare states. For example, in the USA and Canada, the 401k and 403b plans are the major sources of retirement income that provide income security to retirees. Although the Organisation for Economic Cooperation and Development (2019) notes that there are some variations in the degree of privatisation of pension systems and the relevance of occupational pension plans, governmental decisions on the design of pension systems directly impact the living standards of future retirees.

Moreover, Altschwager and Evans (2019) observe that in the Netherlands, the Dutch pension system offers sustainability of income security to retirees and that has caused the average poverty among retirees to decline. The OECD (2019) states that the average poverty rate of pensioners over 65 years in South Korea is 45 percent, and that of Australia and the USA is 23.3 percent and 23.1 percent respectively, compared to a 3.1 percent rate of poverty among retirees in the Netherlands. The Dutch pension system is unique because, Mercer (2019) links it to the adequacy, efficiency, transparency, and sustainability dimensions of pension systems compared to other countries within the OECD. Alternatively, Kuitto and Kuivalainen (2020) have shown that successful pension systems that are effective

in reducing poverty and improving standard of living are built on pension models such as the Bismarckian and ILO models.

Bonsang and Tobias (2011) describe that the Bismarckian model is a pension system whose goal is to maintain income after retirement. The benefits received by retirees under the pension system are related to the level of a person's earnings and contribution record during his or her active years of work. The World Bank (2016) also states that the pension model is a pay-as-you-go system where compulsory contributions of workers and employers are not capitalized for their own retirement, but paid into a pension fund, out of which the benefits of the current pensioners are paid. According to Wong, Osman, Wong, Lin and Ho (2019), the Bismarckian model is designed to reduce inequality and conserve status. Additionally, Guven (2019) observes that the Bismarckian model guarantees, insures, and gives individuals certain level of independence in relation to the market in the event of contingency.

On the other hand, Holzman, Hinz, and Dorfman (2008) note that the ILO model is a four-pillar pension model. The first pillar is a bottom anti-poverty tier, means-tested and financed from general revenues of the government to provide income support for those without other means. The second pillar, as described by Giarini (2012) is a pay-as-you-go defined benefit tier, mandatory and publicly managed, which provides a moderate replacement rate of around forty to fifty percent of lifetime average earnings for all those who have contributed to it. Turner (2005) and Anderson (2019) also explain that the third pillar is a defined contribution and is mandatory up to a determined ceiling, managed by pension

agencies that provide pensions through annuities. The last pillar is a defined contribution, voluntary and without a ceiling, managed by pension agencies. The ILO notes that the second, third, and fourth pillars are associated with most states.

The global importance of retirement planning over the life course is not different from the case of Ghana. As stated by Osei-Boateng (2011), Ghana, like all other countries, also recognises the necessity of the linkage between life course and retirement planning in ensuring improved welfare and economic security among healthcare workers during old age. As a result of this, government of Ghana has implemented institutional structures over the years for formal sector workers between the ages of 18 and 60 as a way of improving welfare and reducing poverty in old age. In this regard, Kpessa (2011) notes that the first formal retirement income policy in Ghana, known as the Colonial Development and Welfare Act (CDWA), originated in the 1940s. Obiri-Yeboah and Obiri-Yeboah (2014) identify that the CDWA retirement policy provided income security and reduced poverty in old age for loyal Ghanaian workers within the civil service.

The Institute of Economic Affairs (2004) notes that the CDWA retirement policy, and other social security policies were designed to improve the quality of lives of retirees in Ghana. The policies include Pension Ordinance (CAP-29), Pension Ordinance (CAP-30), Ghana Universities Staff Superannuation Schemes (GUSSS), Teachers' Pension Ordinance (TPO), and Compulsory Savings Scheme (CSS). Kunawotor and Adjei-Mantey (2014) assert that, all previous pension schemes were cancelled, giving way to the three-tier pension scheme governed by the National Pensions Act 2008, Act 766, as amended by the National Pensions Act

2014, Act 883. The first tier, according to the Social Security and National Insurance Trust (SNNIT) (2015), is a mandatory defined benefit scheme, managed by SSNIT with a rate of 13 percent contribution from employers on behalf of employees.

Furthermore, Doh, Afranie and Bortei-Doku (2014) add that, the second tier is a mandatory and defined contributory privately managed occupational pension scheme at a monthly rate of 5.5 percent, and the third tier is a voluntary funded and defined contributory privately managed provident and personal pension scheme. Generally, Afenyadu (2014) explains that, the new pension scheme provides a wide-ranging mechanism to encourage retirement planning by formal sector workers who make up 40.1 percent of the total labour force. This is so because, to Dovie (2017), employment in the formal sector is organised and maintained through a formal contract where employees work for fixed hours and receive salaries and other incentives.

Geographically, the Accra Metropolitan Assembly has some of Ghana's largest public hospitals. According to the Ghana Health Service (2019), these public hospitals have large number of healthcare workers and facilities and they include Korle Bu Teaching Hospital, Ridge Hospital, University of Ghana Medical Center, 37 Military Hospital, and Police Hospital. Although similar working conditions exist in all public hospitals across the country, the demands and workloads of these five hospitals are bigger compared to other hospitals because national and regional health cases are referred to these health facilities. The Social Security and National Insurance Trust (2019) reveals that currently, retirement planning options available

to healthcare workers in Ghana are the voluntary funded and defined contributory privately managed provident and personal pension schemes.

Owusu-Ansah (2015) and Asiedu (2021) have indicated that healthcare workers such as medical doctors, nurses and pharmacists are leaving the country in search for greener pastures to other countries due to poor working conditions, low income and threatening welfare standards during retirement. According to the World Health Organisation (2018), if healthcare workers are not properly cared for during their working lives and end up living in poverty in retirement, it will discourage others from joining the sector. One way of avoiding these challenges is ensuring that healthcare workers retire by having guaranteed income and economic security through retirement planning during their working lives.

Statement of the Problem

The physician-population ratio in Ghana has improved over the years due to the addition of healthcare workers. According to the Ghana Health Service, since the year 2016 to 2020, doctor-population ratio has improved from 1: 9,301 to 1: 6,355 (Tarlue, 2021). Despite the successes, more healthcare workers continue to seek for greener pastures in developed countries such as Canada, United States of America, Australia and other Western European countries (Asiedu, 2021). Additionally, the General Secretary of the Ghana Medical Association (GMA) notes that, most healthcare workers emigrate in order to meet their basic needs of life during retirement, due to the exposure of retired healthcare workers to adverse

health conditions such as kidney disease, stroke, hypertension, cancer (Nartey, 2022).

The flights of these healthcare workers are serious threat to the healthcare system, and human resource development. The problem is expected to persist, because after fifteen years of introducing the three-tier pension scheme, less than 15 percent of healthcare workers, out of the total contributors of mandatory pension schemes have personal retirement account (NPRA, 2021). It implies that more healthcare workers are at higher risk of being economically insecure during retirement, which calls for a study into the retirement planning of healthcare workers. Han and Sherraden (2007), Anderson (2019) and Altschwager and Evans (2019) claim that transparency, adequacy, sustainability and efficiency in pension schemes, an important life course activity, have influenced retirement plans of most workers in OECD countries. In Ghana, there is lack of clarity on how these institutional structures influence retirement planning of healthcare workers.

Adami and Gough (2008) note also that, the individual in planning his or her retirement over the life course face difficulties of adequate institutional structures offered by states, which may inhibit the achievement of economic security in retirement. For instance, Wehr, Leubolt and Schaffar (2012) show that the mere presence of efficiency, adequacy, transparency, and sustainability in institutional structures put up by welfare states to assist individuals to plan their retirement does not necessarily translate into making good rational choices. Rather, reasons such as individual lifestyles, and poor financial attitude may create weak

financial knowledge, unclear retirement goals, and people taking high financial risks (Grimaldi, 2018).

Zwann *et al.* (2018) explain that, the failure to establish how people's financial attitude link socio-economic factors and institutional structures in helping workers accumulate wealth for retirement may influence retirement planning. However, these are life course activities that have important influence on workers ability to plan their retirement, but has limited empirical studies in Ghanaian literature. Stern (2012) views that, the categorical imperative philosophy and rational choice theory advocate for every person to plan and make choices for retirement, no matter the circumstances. Nonetheless, in reality, Wilson and Denis (2018) observe that when individuals are left to make choices on retirement plans, they may not always make the best decisions that yield maximum benefits, because of lack of access to full information, preferences, constraints and their inability to take advantage of opportunities.

Bacova and Kostovicova (2018) also show that the choices of individuals may not lead to the collective good of society, and in the long run, older people in retirement may become a burden on society, which will widen the poverty gap. Hershey *et al.* (2007) observe that social and economic factors may also inhibit individuals from making rational choices in retirement planning. Doh *et al.* (2014) note that, people who earn huge incomes during their working lives may not necessarily save more for retirement, as posited by the life cycle theory, mainly because of having to take care of large family sizes. Similarly, Dovie (2017) admits that, people who earn lower incomes may not even consider investing in their

retirement because their disposable income may not be sufficient to take care of them during their working lives. This reveals the failure of the rational choice and life cycle theories to explain retirement planning holistically.

All the same, studies by Hira *et al.* (2009) and Hershey *et al.* (2010) have identified financial knowledge, financial risk tolerance, and attitudes towards retirement as influencing retirement planning in America and the Netherlands. On the other hand, studies by Dan (2004), Adami and Gough (2008), and Clark and Lusardi (2011) have also shown the influence of socio-economic factors on retirement planning of workers in America and Europe. However, studies on socio-economic factors, financial attitude, adequacy, transparency, sustainability, and efficiency affecting retirement planning are not evident in Ghana.

The issues emerging from these discussions are that socio-economic factors were not adequately captured in the Ghanaian literature and that it is important to study how they affect retirement planning of healthcare workers. Additionally, the mediating role of financial attitude in the relationship between social, economic, institutional structures and retirement planning was not evident in literature. Aside studies of such nature ignoring healthcare workers, qualitative approaches in institutional structures that seek to integrate the views of pension service providers have not been adequately addressed in Ghanaian literature. The current study attempted to fill these research gaps by employing both quantitative and qualitative approaches.

Objectives of the Study

The main objective of the study was to examine the effect of life course on retirement planning among healthcare workers in public hospitals in the Accra Metropolis, Ghana. The specific objectives of the research were to:

1. Examine retirement planning over the life course of healthcare workers;
2. Explain the effect of financial attitude on retirement planning of healthcare workers;
3. Investigate the mediating role of financial attitude in the relationship between socio-economic factors and retirement planning of healthcare workers;
4. Investigate the mediating role of financial attitude in the relationship between institutional structures and retirement planning of healthcare workers.

Research Question

In order to achieve research objective one, the following research question was provided to guide the study:

1. How do healthcare workers plan for retirement over their life courses?

Research Hypotheses

The following null hypotheses were provided and tested in respect of research objective 2.

1. H_0: There is no significant relationship between financial attitude and retirement planning of healthcare workers

Financial attitude dimensions such as financial knowledge, financial risk tolerance and attitude toward retirement were used and the relationship between these dimensions and retirement planning were established.

With respect to the third research objective, the following hypotheses were formulated and tested.

2. H_0: There is no significant association between socio-economic characteristic and retirement planning of healthcare workers
3. H_0: There is no significant relationship between social factors and retirement planning of healthcare workers
4. H_0: There is no significant relationship between economic factors and retirement planning of healthcare workers
5. H_0: Financial attitude dimensions do not significantly mediate the relationship between socio-economic factors and retirement planning of healthcare workers

Socio-economic characteristics in the second hypothesis comprised age, income, marital status, sex, education and type of profession.

With respect to the fourth research objective, the following hypotheses were formulated and tested.

6. H_0: There is no significant relationship between institutional structures and retirement planning of healthcare workers
7. H_0: Financial attitude dimensions do not significantly mediate the relationship between institutional structures and retirement planning of healthcare workers

The dimensions of institutional structures were adequacy, efficiency, transparency and sustainability.

Significance of the Study

The outcome of the study provides significant suggestions to the National Pension Regulatory Authority and private corporate trustees in designing appropriate pension policies that seek to improve welfare of healthcare workers and retirees during retirement. The study offers the basis for implementing effective social security protection policies by government in helping achieve the sustainable development goals 1 and 3. The research also offers the foundation for institutional reforms and alternatives on platforms that can aid awareness and access to information on pension schemes. This helps to assist healthcare workers so that they can accumulate wealth for the period of retirement in order to reduce poverty and improve welfare of retirees. The findings of the study also offer guides to other formal sector workers on wealth accumulation for the period of retirement.

The study adds to literature on retirement planning within the Ghanaian context with a focus on life course. The study is also significant because it is one that provides empirical evidence in retirement planning studies in Ghana drawing

together individual decisions based on financial attitudes, socio-economic factors, and institutional structures. The study also provides a reference point for future researchers on the activities that occur over the life course to expand both the theoretical and conceptual arguments.

Delimitation of the Study

The study concentrated on retirement planning of healthcare workers over the life course. Mainly, measuring retirement planning was based on whether healthcare workers had individual retirement account or not. Additionally, financial attitude was determined by dimensions such as financial knowledge, financial risk tolerance and attitude toward retirement. Furthermore, the study addressed issues on how socio-economic factors affect retirement planning. While the indicators of social factors included influence from coworkers, friends, families, life experiences of other retirees, and spousal relationship, economic factors looked at quality of pension schemes, confidence in economy and retirement income sufficiency. Socio-economic characteristics such as age, income, education, marital status and sex were treated differently from the other social and economic factors.

The study also focused on how institutional structures influence retirement planning of healthcare workers. Issues under institutional structures comprised adequacy, efficiency, sustainability and transparency. The scope of the research extended to only healthcare workers in five public hospitals within the Accra metropolis. The healthcare workers comprised medical doctors, registered nurses and midwives, laboratory technicians, physician assistants and pharmacists. The

five public hospitals were Korle Bu Teaching Hospital, 37 Military Hospital, Police Hospital, University of Ghana Medical Centre, and Greater Accra Regional Hospital (Ridge Hospital). In addition, the study included major players in the pension industry, such as pension fund managers, pension fund administrators, and the pension regulator.

Limitations of the Study

Retirement planning focused on whether healthcare workers had individual retirement accounts or not. The study did not consider how much people had in their IRAs. Similarly, the focus was not on how workers planned in other areas of their lives such as acquiring immovable, movable properties and operating personal businesses. Additionally, while financial attitude entailed the level of financial risk toleration, financial knowledge and attitude towards retirement, institutional structures were limited to how adequate, efficient, transparent and sustainable pension systems were in supporting retirement planning. With the recent Domestic Debt Exchange Programme (DDEP) extended to pension funds, cedi depreciation and high inflation, there is the likelihood of influence on healthcare workers' retirement planning. However, at the time of the research, the DDEP did not affect pension funds, so a current study may provide changes in workers' retirement plans.

A study of healthcare workers' retirement planning required sampling individuals from diverse medical or health fields. The ability of the study to have a complete representation from all health or medical fields was not possible. Therefore, findings from this research were based on samples from registered

nurses and midwives, pharmacists, laboratory technicians, physician assistants and medical doctors in only five public healthcare facilities within the Accra metropolis. Another limitation to this study is that, the researcher acknowledges biases in the data collection process. In analysing the study's results, qualitative interviews with healthcare workers could have enriched and thrown more insight into their retirement planning over the life course, but I did not achieve that. Lastly, the aggregation of pharmacists and laboratory technicians' data also makes it difficult to have targeted recommendations to each of the professions.

Organisation of the Study

The research was organised into nine chapters. The first chapter presented the introduction of the study, which captures background to the study, statement of the problem, research objectives, research questions, and hypothesis. The significance, scope, and organisation of the study are also presented in the first chapter. The second chapter of the research presented the theoretical and conceptual review. Chapter three focused on empirical evidence of the study and drew out lessons learnt, critiques and gaps from the reviews. The conceptual framework was also presented in chapter three.

Chapter four presented the methodology of the study which dealt with the suitability of the choice of methods employed in undertaken the research. Furthermore, chapter four discussed the research philosophy, research approach, study institutions, population, sampling procedures, data collection, instrument design, data processing and analytical techniques. The fifth chapter analysed data

from the first research objective which examined the retirement planning of healthcare workers over the life course.

The sixth chapter answered the second research objective by examining the effect of financial attitudes on retirement planning of healthcare workers. The seventh chapter presented analysis on the mediating effect of financial attitude in the relationship between socio-economic factors and retirement planning. The eighth chapter examined the mediating effect of financial attitude in the relationship between institutional structures and retirement planning, and the ninth chapter presented the summary, conclusions and recommendations.

CHAPTER TWO

THEORETICAL AND CONCEPTUAL REVIEW

Introduction

The chapter is dedicated to reviewing theories and concepts relevant to the study. In the opinion of Ospina (2004), the relevance of theories is to connect the researcher to existing knowledge which allows for the conceptualisation of the study in a broader context. Brannen (2005) asserts that the theories help to support the problem statement, research questions, empirical works, methodology and analysis. In the theoretical review, rational choice, life cycle and life course theories are addressed.

The conceptual review also focused on explaining key variables that shape the study. According to Kumar (2011), the essence of a conceptual review is to give the study a parameter and direction that help the researcher to clarify variables and organise ideas. In the conceptual review, retirement planning, life course, socio-economic factors, institutional structures, and financial attitude are explained. Literature on the theoretical and conceptual studies were sourced from different databases including Elsevier, Emerald, Routledge Taylor and Francis, Wiley Online, Springer, Sage Inc, Inderscience, Science Direct, and Cambridge Press. Additionally, I retrieved information from the Google scholar search engine. In the next section of the study, the theories used in the research are presented.

Theoretical Review

Three theories formed the basis of explaining life course and retirement planning. The theories are life course, rational choice and life cycle. Although the life course theory significantly influenced the work, all of the theories complemented each other in explaining how healthcare workers plan their retirement by accumulating wealth during retirement.

Life Course Theory

The life course theory was developed by Glen H. Elder in the 1960s to explain an individual's life within a personal, social, economic, and structural context that influences decisions. Since the development of the theory, other authors, including Joo and Pauwels (2002), have applied it to explain the influence of institutional structures on individual decisions towards retirement. Elder *et al*. (2003) have argued that accumulating savings for retirement requires institutional structures and incentives. In order to explain the study, two key features of the theory were applied in supporting my arguments. The first underlying feature, as provided by Kohli (2007), is that people's lives are planned and interdependent within a social environment. Secondly, the decisions of individuals, as described by Hutchinson (2007), are dependent on the constraints and availability of favourable institutional structures.

Three main assumptions of the life course theory underlie the study. The first assumption, as provided by Quadagno (2014), is that individuals make plans for retirement where there are favourable institutional structures or policies that

promote wealth accumulation. The institutional structures include adequacy, efficiency, sustainability and transparency of pension systems. The second assumption, as indicated by DePreter, Van Looy and Mortelmans (2013), is that individuals make decisions when, at the time of taking the decision, there is an institutional policy. Thirdly, Gettings and Anderson (2018) provide that the guarantee of social and economic security in retirement depends on the retirement planning activities that motivate savings over the life course.

Following from these assumptions, there are two institutional structures that offer assistance to workers in planning their retirement. The first, as provided by Yang and Devaney (2011), is the internal institutional structure, which comprises both the organisation that the employee works for and the pension trustee companies that offer retirement products and services to individuals during their working life. Dan (2004) and the World Bank (2012) state that organisations that provide opportunities, such as perquisites, designing internal pension schemes and topping up contributions of employees' income into pension schemes help in wealth accumulation. Wang *et al.* (2014) also observe that pension companies that invest pension assets diligently and charge low service costs help in creating wealth for workers. The second institutional structure, as indicated by ILO (2011), is the external institutional structure of state policies on pensions.

According to Settersten (2003), external institutional structures or policies inspire the accumulation of financial resources by individuals. These external institutional structures, as noted by Holzmann, Hinz and Dorfman (2008) include favourable policies on pensions that promote sustainability, adequacy,

transparency, and efficiency of pension schemes. In other words, Lee and Kim (2016) assert that state policies on pensions need to inspire confidence in pension systems, provide security, guarantee access to information to contributors and provide sufficient minimum pension to the retiree. In support of this, Nilsen, Brannen and Lewis (2012) and Esteban and Natalia (2015) provide that institutional structures facilitate the level of confidence and motivate individuals to plan for their retirement.

Elder and Johnson (2003) also argued that individual lives over the life course are linked to social, and economic structures in society. In other words, the life course perspective highlights that individual lives may be influenced by previous life events and certain socio-economic occurrences. In addition, Cunha *et al*. (2006) argue that it is the role of institutions or available structures to deliver savings and investment products over the life course so that the needs of individuals are met in retirement. Jackson (2009) demonstrates that, the life course theory provides critical understanding of wealth accumulation for the period of retirement, by considering the role of institutional structures and some socio-economic factors such as the confidence a person has in the economy and social relationships with spouses, friends, coworkers, and family.

Although Wang, Henkens and Van-Solinge (2011) and Valverde (2018) assert that socio-economic context and structures play important roles in explaining different experiences of individuals in their retirement planning, the life course theory fails to address how individuals make personal decisions based on choices, information, constraints faced in life and identifying alternatives when planning

their retirement. For these reasons, the rational choice theory is reviewed to support the explanation on how people plan their retirement.

Rational Choice Theory

Acheson (2002) notes that the rational choice theory is used in the social sciences to explain individual attitudes or behaviour. The theory is traced to Adam Smith in the mid 1770's as a dominant theory in economics. In recent times, the theory has been extended to other disciplines through major contributors like Cesare Beccaria in the 1780s, Peter Blau in 1964, and Gary Becker in 1976. In the view of Green (2002), Bicchieri (2003) and Ogu (2013), the features of the theory are that individuals are rational actors who make decisions based on information, preferences, and constraints, resulting in the best possible outcomes associated with a person's own interests. Based on the features, two explanations are deduced. The first is that individuals make decisions when they have all the necessary knowledge, and secondly, decisions are made by identifying alternatives and considering possible limitations that may inhibit a decision.

Following the principles of the rational choice theory, three main assumptions of the theory guided the study. The first assumption as noted by Morris (1995) is that the theory considers the individual as the centre of the decision-making process. Impliedly, every decision regarding retirement planning is made by only the individual. Therefore, all consequences of the decisions are also borne by the individual. Additionally, Hedstorm and Stern (2008) provide the second assumption, that there is perfect information. Earl and Archibald (2012) explain

perfect information to mean that, at the time of making any decision, the individual has available or access to all the relevant market information on the possible risks and costs of the decision.

Furthermore, the third assumption, as explained by Kaisa and Maija (2004), is that there is a completeness to the decision that is made by the individual. According to Paternotte (2015), completeness is the ability of the individual to make decisions between two or more options and rank them in order of the preferred option. The preferred option, as noted by Topa, Lunceford and Boyatiz (2018), is the individual's own decision, having weighed all possible risks, benefits, and costs based on the completeness and information available to the individual.

Based on the assumptions, the rational choice theory is useful in explaining a person's financial attitude or behaviour toward retirement planning. Choi, Lugauer and Mark (2016) assert that the decisions of individuals reflect their attitudes or behaviour, which result in the choices they make. Therefore, Lee and Kim (2016) argue that financial attitudes are better measured with the financial risk that an individual is willing to tolerate, as well as financial knowledge and attitude towards retirement. In explaining financial risk tolerance, Grable *et al.* (2009) and Lusardi *et al.* (2017) note that it is the preparedness to engage in financial behaviours with indeterminate results that have an identifiable and undesirable outcome and therefore shows the level of financial doubt a person is willing to take. In sum, Almenberg and Save-Soderbergh (2011) show that the financial risk toleration level is influenced by the individual's financial knowledge.

Financial knowledge, as explained by Hogarth, Beverly and Hilgert (2003), is the individual's skill and competence in dealing with personal finances that helps a person accumulate wealth. Indeed, Ross and Will (2009) observe that the higher an individual's financial knowledge, the more he or she is likely to accumulate wealth. Besides financial knowledge, attitudes towards retirement also determine a person's financial attitude. Chipote and Tsegaye (2014) describe attitude towards retirement as the effort or commitment that a person puts into planning his or her retirement. For instance, being exposed to or having access to financial and retirement information puts a person in a position to plan for retirement. By implication, Clark, Hanson, Morrill, and Pathak (2016) assert that when people have less access to retirement information, they fail to put in efforts towards planning for retirement, which affects the accumulation of wealth.

Furthermore, Lusardi, Mitchell and Oggero (2018) and Lusardi (2019) are of the view that individuals who are financially knowledgeable, and have access to retirement planning information develop the right attitudes towards securing their old age. Koe and Ken (2018) also aver that individuals with access to information and financial knowledge react positively by planning for the period of retirement and, in the end, accumulate adequate financial resources that provide them with income security. Other studies by Mohd *et al.* (2017) and Mulders (2019) have confirmed that individuals who tolerate adequate financial risks and have good attitudes towards retirement put in place financial plans to accumulate wealth in order to avoid deteriorating welfare and poverty during retirement.

In contrast, McKinnon (2013) and Sablik (2016) had criticised the rational choice theory for not considering elements of consumption and saving patterns in wealth accumulation and how people save over the life course. Stoiko and Strough (2019) also observed that income, education, gender, age, marital status, and number of dependents affect decisions of individuals in retirement planning, but the rational choice theory does not take these elements into account, and for this reason, the life cycle theory is reviewed to close the gap.

Life Cycle Theory

The life cycle theory is an economic theory developed in the early 1950s by Franco Modigliani and Richard Brumberg. Major contributors to the theory include Friedman in 1957 and Flavin in 1981. According to Modigliani (1966), the principles underlying the life cycle theory are that, first, individuals are rational beings and they will save when their income exceeds consumption, and secondly, individuals will maximise satisfaction from future consumption in the midst of budget constraints. As a result of this, Jackson (2009) observes that the use of the life cycle theory helps to explain the relationship between consumption, and accumulation of wealth. Furthermore, Sablik (2016) notes that the decision to attain maximum satisfaction over the life cycle is also influenced by a person's income, age, consumption, education, and number of dependents.

The life cycle theory works on four main assumptions. The first assumption, put forward by Karoui and Jeanblanc-Picque (1998) is that, high income earners are able to save more for later life while smoothing out consumption compared to

low-income earners. Secondly, Browning and Crossley (2001) observe that an individual's consumption is evenly spread throughout his or her lifetime, resulting in accumulating savings in periods where the individual earns income. In addition, Deaton (2005) postulated that individuals think longer term and build wealth for periods such as retirement, so they save during their working life and exhaust their savings during retirement. The last assumption provided by Cunha, Heckman, Lochner and Dimitriv (2006) is that people maintain their lifestyles by saving when they earn and dissaving when they retire.

Following the underlying assumptions, Modigliani (2005) avers that during retirement, when individuals no longer save, the accumulated savings are instead used to maintain consumption. By implication, an individual's right to social and economic security is guaranteed when he or she has made adequate plans to accumulate savings during his or her working life. With this in mind, Njunge (2013) asserts that individuals plan their retirement by saving or investing in financial products, so that by the time the individual reaches retirement, the accumulated savings become the main source of income. However, Sablik (2016) advises against the risk of individuals investing in immovable assets due to the difficulty of converting them to cash when needed instantly to cater for retirement needs. As a result, the best way to guarantee a person's security in retirement, as stated by Karina and Anne (2019), is to accumulate financial wealth through savings.

Accumulating wealth for retirement through savings and investments in financial products is the argument of Modigliani (1966), who offers the main prescription of the life cycle theory. It is therefore deduced that an individual's

saving for retirement increases when he or she maintains consumption at an average level with an increase in income during their working life. Jackson (2009) also asserts that the accumulated savings during an individual's working life is then used to maintain consumption during retirement years when a person dis-saves. In the same vein, Remund (2010) notes that as people age up to the period of retirement, and acquire higher educational levels, they gain more experience while working, and so they are able to earn a higher income, which results in the individual saving more for retirement.

Browning and Crossley (2001) and Wong *et al.* (2019) also indicate that individuals with high education, high incomes, smaller number of dependents, adults, and those who spend more years in employment are able to accumulate wealth over the life cycle to guarantee retirement income security. The inference drawn from the life cycle theory, as observed by Njunge (2013), is that savings accumulated during a person's working life become the major source of retirement income. Additionally, Lusardi *et al.* (2017) assert that the more a person saves, the better his or her life becomes during retirement, and the failure of individuals to save leads to poverty and threatening welfare standards. Hence, to guard against poverty in retirement, Burkert and Hochfellner (2017) affirmed that, individuals during their working life are required to have a retirement plan by accumulating wealth.

In contrast, arguments by Lugilde, Bande and Riveiro (2017) show that people do not only accumulate wealth for retirement, but do so for precautionary and inheritance purposes. According to Zwaan, Hengel, Sewdas, Wind, Steenbeek,

Beek and Boot (2018), individuals who want to guard against uncertainties in life as well as leave inheritances for their children may do so by saving more. Carman and Hung (2017) opine that in ascertaining wealth saved purposely for retirement, consideration is given to the intention of the person for saving. Therefore, Gettings and Anderson (2018) note that, for an individual to accumulate financial wealth for retirement, there is a need to have a clear intention to save over the life cycle.

Conceptual Issues

I reviewed retirement planning, life course, socio-economic factors, financial attitude, and institutional structures as the main concepts in the study. Pension scheme is also explained to help understand its use and relevance within the literature.

Retirement Planning

Retirement planning has been explained differently by much of the academic literature. It has been viewed through the lens of individuals making plans for how they will adjust to their social, emotional, and physical health in retirement. Noone, Stephens and Alpass (2009) view retirement planning as a decision-making process where individuals plan for changes in social relationships and physical health during retirement. Sabbath, Lubben, Goldberg, Zins, and Berkman (2015) consider retirement planning as a decision-making process towards the emotional and physical health of a person during retirement. In addition, Lucifora and Vigani (2018) explain that, retirement planning is a decision-making process undertaken

by individuals in emotional, social, and physical health during their working life for the period of retirement.

On the other hand, other authors have diverged from explaining retirement planning from the perspective of social, emotional, and physical health plans to the accumulation of movable and immovable assets. Agblobli (2011) explains retirement planning as the decision making by an individual to accumulate physical assets, movable and immovable rather than financial assets. In the same vein, Wang, Henkens and Van-Solinge (2011) describe retirement planning as making decisions to accumulate assets during the working life of an individual where a steady income is earned from the acquired assets during retirement. In furtherance of that, Beehr (2014) views retirement planning as making decisions during an individual's working life towards the acquisition of basic needs in life, including decent accommodation, food, and clothing.

Contrasting the views of Agblobli (2011), Wang *et al.* (2011) and Beehr (2014), Lusardi and Mitchell (2015) explain retirement planning as the decision to accumulate financial assets, which involves depositing money into a retirement or savings account to cater for expenses in retirement. Topa *et al.* (2018) also perceive retirement planning as decision making on a series of financial activities undertaken to accumulate wealth to cover a person's needs during retirement. Additionally, Altschwager and Evans (2019) describe retirement planning as the decision-making by an individual to accumulate financial resources such as savings, investments, and pension income.

Lusardi *et al.* (2018) note that accumulating financial assets requires the individual to have thought about the period of retirement as well as accumulate wealth in retirement accounts. The Organisation for Economic Cooperation and Development (2019) explains that for individuals to accumulate financial assets, they need to be aware of retirement plans, have retirement and other financial accounts mainly for retirement, frequently make deposits into accounts and know how much is needed in retirement. Therefore, Maobe (2020) emphasises that individuals who are concerned about retirement have not only thought about it, but also put in retirement plans by having individual retirement account to accumulate wealth over the life course.

Life Course

Life course is dominantly used in the discourse of studies in retirement planning. While the concept is used to study human development, particularly with regards to well-being, ageing, and health, researchers have used life course to explain decision making in planning for retirement. In consonance with the view of Moen (1995), life course is explained as the outcome of past and current experience and the influence it has on decisions made later in life. In the same vein, McMillan (2005) considers life course as the life history of an individual that impact on future decisions about retirement. Hutchinson (2007) also views life course as a sequence of events and experiences that an individual goes through and these experiences impact on the person's later life. It means that future decisions of people are

influenced by the context of activities and experiences which they go through during their lives.

In contrast to the views of Moen (1995), McMillian (2005), and Hutchinson (2007) in explaining life course as events, experiences, and life histories of an individual, other authors have explained life course as transitions in life. Some of these authors are Mirowsky and Catherine (2007), who consider life course as transitions that occur in a person's life that subsequently influence the outcomes of the individual's later life. Additionally, Kohli (2007) describes life course as the stages of an individual's life that are interconnected with the lives of other people in society as well as past, and future generations of families. It implies that the life course is grounded in interdependencies between individuals of the same generation and the lives of other generations. Heinz (2009) also perceives life course as the stage of life development that lasts from childhood to old age.

On the other hand, Elder *et al.* (2003) explain life course as the relationship existing between an individual and the social, economic, cultural and institutional structures within which the people live. These relationships involve individuals developing the right financial attitude, social, economic and cultural factors, and institutional policies that shape the life of a person. In furtherance to that, Nilsen, Brannen and Lewis (2012) describe life course as the interplay between an individual's life and the context within which they grow. Likewise, Valverde (2018) views life course as transitions in life and the individual's relationship with the environment. Gleaning from the views of the authors, the life course is

considered to interrelate financial attitudes of people with socio-economic factors and institutional structures.

Socio-Economic Factors

Socio-economic factors have been explained from three main perspectives in the literature. First, from a behavioural point of view, Barnes-Farrell (2003) describes socio-economic factors as the outcome of individuals' distinct behaviour that emanate from their interaction with society. In the view of Huczynski and Buchanan (2007), socio-economic factors are the qualities that influence an individual's behavioural pattern. Additionally, while Behaghel and Blau (2012) view socio-economic factors as individual relationships with friends, families, spouses, coworkers that influence behaviour based on the social structure, Bakhtgalieva, Tasheva and Yin-Fah (2018) describe them as socially transmitted ideas passed from one generation to another.

The second perspective in literature is where other authors have viewed social and economic factors based on individual backgrounds arising out of demographic data. In view of this, Dan (2004) explains socio-economic factors within the context of an individual's background such as education, gender, age, income, marital status and dependents. Equally, Guyla and Yiwei (2008) consider socio-economic factors on the basis of socio-demographic factors such as age, gender, ethnicity, religion, income, education, home ownership, sexual orientation, marital status, family size, and health status. In furtherance to that, Ivancevich *et al.* (2008) describe socio-economic factors as products of hereditary and pattern of

life experience that define an individual's life structure shaped by opportunities and constraints that enable a person to develop his or her personality.

Lastly, the perspective from the Jais and Asokumar (2019) is that, socio-economic factors track the social and economic changes that reflect the state of being or quality of life of a person. Consequently, Been, Caminada, Goudsward and van Vliet (2017) and Amoah (2019) argue that socio-economic factors underlie the standards of life of a person. Furthermore, Ishii and Eisen (2020) explain socio-economic factors as an individual's background and status relative to others in a society. This implies that socio-economic factors make every person distinct, and these distinctions influence decision making on retirement plans. Ishii and Eisen, note that these socio-economic factors inform the financial attitudes of an individual.

Financial Attitude

Financial attitude is explained by three variables that define a person's behaviour toward retirement planning. Hershey, Henkens and Van Dalen (2007) list them as financial knowledge, attitude towards retirement and financial risk tolerance. The variables are explained from the theoretical perspective of rational choice and life cycle theories by researchers such as Green (2002), Hedstorm and Stern (2008) and Grune-Yanoff (2012). Hogarth, Beverly and Hilgerth (2003) describe financial knowledge as a person's understanding of the stock market, bonds, and other financial investments. Garman and Forgue (2005) also explain

financial knowledge as knowing the facts necessary to manage an individual's personal finances successfully.

On the other hand, Remund (2010) gives a broader explanation of financial knowledge to include an individual's understanding of financial matters that helps him or her to make the right choices regarding the accumulation of wealth. Additionally, Lusardi and Mitchell (2015) describe financial knowledge as a set of skills and knowledge that allow an individual to understand personal finances needed to make informed financial decisions that impact on a person's financial well-being. Bacova and Kostovicova (2018) used four indicators of financial knowledge and these were computational capability, emotional loads, personal competence, and trust in pension schemes.

While Sherraden (2010) explains emotional load as the daily decisions that a person make about money that guide his or her savings for retirement, Van Rooij, Lusardi and Alessie (2011) and Balaz (2012) describe computational capability as a person's understanding of pension income, investment return, and diversifying risk, Boyetey (2019) clarifies personal competence as an individual's understanding of financial matters, such as having confidence in preparing for retirement, while trust in pension schemes was explained as individual being conversant with pension schemes, and participation in the scheme.

From the theoretical perspective of the rational choice and life cycle, an individual's financial knowledge predicts his or her financial attitude, which encourages and motivates retirement planning. Moore (2003), Ross and Will (2009), Bernheim (2010), and Lusardi *et al.* (2017) agree on the positive

relationship existing between financial knowledge of an individual and retirement planning through the accumulation of wealth. Furthermore, Agunga, Jagongo and Ndede (2017) found a statistically significant impact between financial knowledge and saving for retirement.

Another argument from Hedstorm and Stern (2008) is that attitude towards retirement defines a person's financial attitude towards accumulating wealth for retirement. In the view of Hershey *et al.* (2010), attitude towards retirement explains how a person sees retirement in the future, such as thinking about how he or she will live years from now and thinking a great deal about the quality of life in retirement. Previous studies by Mowen, Hershey and Jacobs-Lawson (2000), Jacobs-Lawson, and Hershey (2005) have used self-rated attitudes towards retirement to determine financial attitudes with indicators such as future time perspective and retirement goal clarity. While Mowen, Hershey and Jacobs-Lawson (2000) describe future time perspective as the perception of retirement in the future, Jacobs-Lawson and Hershey (2005) view retirement goal clarity as the act of thinking about, discussing, or setting personal retirement goals for the future.

Ortega (2008) shows that having a future time perspective on retirement and having a clear retirement goal informs an individual to invest in financial assets in accumulating wealth. Additionally, Poterba (2014) revealed that people who demonstrate good attitudes toward retirement, such as taking steps to plan, discussing their retirement plans with professionals, families and friends and setting goals for retirement, are able to accumulate financial wealth for retirement. Lee and Kim (2016) also found that the more people think about retirement, have access to

retirement information, understand the information and have a perception of planning not being late, the greater the likelihood of planning for retirement. Furthermore, Grimaldi (2018) asserts that the likelihood of individuals to plan their retirement is based on their level of tolerating financial risk.

According to Grable, Roszkowski, So-Hyun, O'Neill and Lytton (2009), financial risk tolerance is the preparedness of an individual to participate in financial behaviour with indeterminate results that have an identifiable adverse outcome. Jais and Asokumar (2019) also consider financial risk tolerance as a person's readiness to assume risks in investments, and select assets with higher returns but with higher risks. In line with the rational choice theory, Magendans, Gutteling and Zebel (2016) consider financial risk tolerance as a predictor of an individual's financial attitude that informs the level of wealth accumulation for the period of retirement. However, Hayley (2019) notes that having good financial attitudes requires adequate institutional structures.

Institutional Structures

Institutional structures have mainly been explained from two varying perspectives. On the one hand, Gruat (1998) describes institutional structures from the national level perspective where states establish policies that aid individuals to plan their retirement. Likewise, Duval (2004) considers institutional structures as the overall framework implemented by states that governs the provision of pension or retirement services to individuals. Accordingly, the use of the Bismarckian framework, as elaborated by Wong *et al.* (2019), is an example of an institutional

structure that is designed to encourage savings for retirement as well as reduce inequality and improve standards of living of retirees. In Ghana, the National Pensions Regulatory Authority (2018) presents an institutional structure which provides a three-tier pension system designed to encourage individuals to save for retirement.

On the other hand, institutional structure, is viewed by Granville and Mallick (2004) as the structure established by private pension companies to deliver the mandate of the national framework on pensions. In the view of Arkani and Gough (2007), this form of institutional structures includes efficient management of pension funds, increasing access to opportunities for people to save, management of pension information and providing sustainability and security to pension funds. Based on the definitions of the authors, the two forms of institutional structures are distinguished as external and internal, where national level policies are considered external, whereas structures established by private pension companies are considered as internal. Behrendt and Nguyen (2018) assert that the two institutional structures work together to ensure that the goal of achieving income and economic security in retirement is achieved.

The International Labour Organisation (2017) has showed that efficient institutional structures remove any barrier that prevent an individual from accessing a pension scheme or financial investment. Additionally, the World Bank (2018) also found that efficient institutional structures impact on individuals' ability to save for retirement and accumulate wealth. As a result, Mercer (2019) identifies four key elements of efficient institutional structures from both internal and external

point of view. These are efficiency, adequacy, sustainability and transparency of institutional structures.

Barr (2000) explains efficiency as the policies and reforms on pensions introduced by state to ensure individuals are able to contribute or save towards retirement without any form of restriction or barrier. The efficiency of policies, as noted by Bourguignon, Jean-Jacques, Martin, Leonardo and Pierre (2005) and Uthira and Manohar (2009) offer contributions at the minimum level to allow large participation of workers, flexible guidelines for contribution payment, closeness of service to contributors and increase in awareness through public education. Besides this, Amaglobeli, Chai, Dabla-Norris, Dybczak, Soto and Tieman (2019) view that efficiency of pension policies is relevant in encouraging workers to participate in pension schemes and accumulate wealth which guarantees their welfare at retirement.

Adequacy, which is the next determinant of an efficient institutional structure, seeks to provide protection of individuals in retirement. As stated by Bodie and Mitchell (1996), adequacy deals with the relevance of contributions in a privately managed pension scheme, such as favourable pension products that individuals can sign onto and contributions that people are expected to retire on, considering the rate of return on pension investment. Douglas, Graetz, and Munnell (1998) observed that if poverty and welfare are to be improved in old age, policies on pensions need to offer favourable products to cover all workers and make contributions compulsory. In addition, Cichon (1999) explained that providing

adequacy in institutional structures requires maximising the amount of money people expect to retire on through increasing rate of return.

In terms of sustainability of institutional structures, Gillion, Turner, Bailey and Latulippe (2000) describe these as the security of pension contributions with regards to all forms of risk and long-term operational impact on pension contributions. To guarantee the operational impact, Dupas and Robinson (2009) recommend that administrative costs be minimised, else that may impact on the savings and investment of the individual, leading to loss of pension fund and retirement poverty. Sustainability of pensions as observed by Mohd *et al.* (2010) also include the safety and security of pension contributions and Sherraden (2010) showed that security and safety of pension contributions motivate individuals to enroll in pension schemes.

The last element of institutional structure is transparency. In consonance with Fultz's (2002) view, transparency is the availability of information to pension contributors. The World Bank (2018) also asserts that transparency involves providing information to contributors on investments made by pension managers, losses on investment, investment returns, risks on investments, administrative expenses, board structure and governance and auditor's report. Behrendt and Nguyen (2018) showed that transparency in pension scheme influences higher accumulation of wealth leading to growth in pension schemes.

Pension Scheme

Deaton (2005) indicated that individuals engage in savings plan to accumulate wealth in their working life in order to consume it during retirement as hypothesised by the life cycle theory. Fabbro (2010) therefore, considers one of such saving plans as pension scheme, which operate as a financial vehicle that helps workers to accumulate money during their working life and to be spent in retirement. Agblobli (2011) also explains pension scheme as monies saved or accumulated by workers through special purpose financial vehicle during their working life for the purposes of consuming it in retirement. In the same vein, Wang *et al.* (2014) described a pension scheme as a saving strategy that helps workers to accumulate funds during their working life in order to earn income in retirement.

To augment the explanations of a pension scheme, Kpessa (2011) described pension scheme as a type of savings plan with favourable tax treatment and other benefits designed specifically by pension laws to aid workers save for retirement compared to other forms of savings, which does not provide such benefits. In furtherance of that, the International Labour Organisation (2014) also explains pension scheme as savings plan designed for workers to accumulate funds during their working life which are backed by specific pension laws whose aims are to guarantee income security for retirees. Additionally, the Organisation for Economic Cooperation and Development (2019) considers pension scheme as investment or savings vehicle supported by laws and policies of states wholly to provide benefits to workers at retirement.

Drawing from the views of the authors, it is discernible that monies in savings account, and investment in treasury bills, bonds, fixed incomes and other financial assets with the sole aim of expending the accumulated amount in retirement, constitute a pension scheme. This is because, according to Ashaley (2012), any savings vehicle by individuals during their working life established for the purposes of earning steady income during retirement is described as pension scheme. By extension, Kpessa (2011), ILO (2014) and OECD (2019) suggest that pension schemes are required to be specifically backed by national pension laws in order to help workers to contribute towards their retirement. In that case, such pension schemes as explained by the World Bank (2016) include defined contribution schemes where an individual contributes a portion of income and receives benefits at retirement based on market conditions.

In Ghana, the Social Security and National Insurance Trust (2015) assert that the defined contribution schemes are the mandatory occupational pension scheme (Tier 2), voluntary provident fund scheme (Tier 3) and personal pension scheme. The National Pensions Regulatory Authority (2018) also provides that the delivery of pension schemes is led by the state who permits private participation in providing saving arrangement with the goal of improving the lives of retirees and protecting them against the risk of old age poverty. Likewise, Kuitto *et al.* (2020) explain that irrespective of the saving vehicle, the goal of all the pension schemes is to make annuity payments to workers during retirement. These annuity payments made are then used to meet the needs and consumption demands of workers during

retirement. Therefore, pension schemes encompass any savings vehicle whose aim is to provide steady income at retirement.

CHAPTER THREE

EMPIRICAL REVIEW AND CONCEPTUAL FRAMEWORK

Introduction

In this chapter of the research, empirical evidence across Europe, America, Asia, Africa and Ghana on life course and retirement planning was reviewed. Blaikie (2010) notes that empirical literature review examines past studies to answer particular research questions. Goldkuhl (2012) also asserts that empirical review helps to identify gaps in knowledge and show the methodologies used in research that can guide and increase human knowledge. Smith (2015) further describes that, through empirical review of literature, the present knowledge and condition within a study area is known which helps to avoid duplication of research. I downloaded the empirical works from journals and automatic search engines including, Science Direct, Scopus, Google Search, Cambridge Press, Emerald, Routledge Taylor and Francis, Research Gate, Elsevier and Wiley Online.

In each of the various search engines, keywords related to "retirement planning," and "life course" was used in the search string. This was done to identify as many relevant papers as possible. The terms "financial attitudes" and "institutional structures" were also included since it is directly related to the phenomenon. Upon the completion of 110 downloaded journals, each paper was screened based on the title, relevance, theories and significance to the research topic. Afterwards, a total of 20 relevant journals directly related to the research topic was selected, reviewed and used as empirical studies categorised under the rational choice, life cycle and life course theories.

Furthermore, the conceptual framework, which according to Liehr and Smith (1999), is an integrated way of looking at a problem and linking the various concepts, empirical research and theories, was provided to offer a visual display on how the study's variables connect to one another. Grant and Osanloo (2014) also assert that the conceptual framework is important because, it assists the researcher in constructing the worldview on the phenomenon studied. In this chapter, the empirical evidence and conceptual framework are used to determine how socio-economic factors, financial attitudes, and institutional structures influence retirement plans of healthcare workers in order to guarantee economic security during retirement. A table of empirical findings, lessons learnt, and chapter summary are subsequently provided.

Empirical Review on Rational Choice Theory

In the first empirical study, I reviewed the work of Hershey, Henkens and Van Dalen (2007). The authors examined how future time perspective, retirement goal clarity and financial knowledge influenced retirement planning among Dutch and American workers aged 25 to 64 years based on the differences in pension systems. The rational choice and life course theories underpinned the study where the quantitative approach and cross-sectional research designs were used. While a sample size of 621 men and 367 women from the University of Tilburg, Netherlands was chosen using the simple and stratified sampling techniques, 206 men and 223 women from American respondents within the same age brackets in

the North-Central Oklahoma area were selected using convenient and systematic sampling techniques.

Data were collected using questionnaire and the indicator for retirement planning was whether people have thought about retirement planning or not. The indicators of future time perspective, retirement goal clarity and financial knowledge were adopted from Mowen, Hershey and Jacob-Lawson (2000), and Neukam (2002) scale. First, future time perspective had four items, on a 4-point scale, while retirement goal clarity and financial knowledge had items with 3-point scale. A single score for this measure was constructed by calculating an unweighted mean and the higher scores corresponded to longer future time perspectives, good retirement goal clarity and financial knowledge.

The ordinary least square regression was used to estimate the effect of future time perspective, retirement goal clarity and financial knowledge influenced retirement planning. The results were that future time perspective, retirement goal clarity and financial knowledge positively and significantly impacted retirement planning. The use of t-tests to compare mean scores across groups revealed that there were differences in retirement planning and that Americans planned better compared to the Dutch. The difference was explained by the fact that Dutch workers' retirement plans was shouldered by the state and individuals' employers, compared to American workers who had to plan their own retirement. It was concluded that financial attitudes helped retirement planning and provided the avenue for workers to live an improved life and promote well-being at retirement.

In another study, Hira, Rock and Loibl (2009) investigated the determinants of retirement planning among workers in the United States of America. In this study, retirement planning was conceptualised as having a retirement account and maximising contributions in the account. Underpinned by the rational choice theory, the quantitative approach was employed along with the survey and cross-sectional design. A sample of 911 households were selected through the simple random sampling technique. The individual who was the primary maintainer of the household finances was identified to answer the questionnaire. Questionnaire was used as the instrument for collecting data and was done through emails and telephone surveys. Two indicators on the questionnaire were used to measure retirement planning. The first was whether an individual owned a private retirement account and this was measured by a 'yes' or 'no' response.

The second item asked of the frequency at which respondents maximised their retirement contributions in the private retirement account. The responses were measured on a 5-point scale, from 1 (never) to 5 (always). The two indicators were used as dependent variables for the fitted models. The first independent variable was measured by the question, on where respondents like to plan for the future. Other four independent variables used were whether individuals reviewed and compared investment performance, had sources of financial information, researched information by themselves, and started investing early in life. The items on sources of retirement information were financial advisors, internet, print media and workplace Responses for the independent variables were measured on a five-point scale.

Logit regression was used to analyse the relationship between individuals owning a private retirement account and the explanatory variables. The findings were that all four explanatory variables were significant and positively related to owing a retirement account. It implied that those who reviewed and compared investment performance, and obtained retirement information from various sources were more probable to have private retirement account. Those who also researched information by themselves, and started investing early in life had private retirement account. The ordinary least square regression was also used to analyse the maximization of retirement contribution variable. The findings showed that those who researched financial information, compared investment performance, obtained retirement information from different sources and started investing early in life maximised their contributions.

Comparing the two retirement planning studies by Hershey *et al.* (2007) and Hira *et al.* (2009), similar findings of positive and significant relationship between financial attitude and retirement planning were concluded. However, both retirement planning and financial attitude were measured differently. While Hershey *et al.* (2007) focused on financial attitude influencing retirement planning, Hira *et al.* (2009) combined financial attitude and social factors as independent variables in retirement plans. In the study by Hira *et al.* (2009), financial attitudes were for instance, determined by constructs such as financial knowledge where individuals were asked whether they reviewed and compared investment performance whereas future time perspective was assessed by whether an individual started investing early in life. The two studies by Hershey *et. al* (2007)

and Hira *et al.* (2009) provide an important insight into studying retirement planning.

Furthermore, Hershey, Henkens and Van Dalen (2010) examined social, economic and financial attitude that influence retirement planning of Dutch and American workers between the ages of 25 and 64 years. The study was conducted two years after the Dutch pension system had transitioned with workers having the responsibility of determining their retirement plans. The purpose was to compare with the previous studies by Hershey *et al.* (2007) whether there have been changes in retirement planning by Dutch workers. The measure of financial attitude was future time perspective, retirement goal clarity and financial knowledge. While social factors were conceptualized as influence from friends, family members, spouses and coworkers, economic factors focused on quality of employer sponsored pension scheme, and investment assets.

The study was supported by the rational choice and life course theories and largely, the cross-sectional design of the quantitative approach was employed. A sample of 419 Americans from North Carolina was selected using convenience sampling technique while 556 Dutch workers of the same age bracket were selected using stratified and simple random techniques. Questionnaire was used as the data collection instrument and retirement planning was measured by how well individuals have thought about planning. The indicators of social factors were spousal or partner support, friend and colleague support and that of economic factors were quality of employer pension, and investment asset. The two constructs were both measured on a five-point scale. The indicators for future time perspective

were adopted from studies by Mowen, Hershey and Jacobs-Lawson (2000), and Neukam (2002).

Retirement goal clarity and financial knowledge were measured on a three-point scale and the indicators were adopted from Hershey *et al.* (2003), Jacobs-Lawson and Hershey (2005) and Stawski *et al.* (2007). T-test was used to compare differences in mean score and the result was that Americans had significantly lower scores for quality of employer pension plans, while Dutch workers also had lower scores for spousal support levels, support of friends and colleagues, and all financial attitude measures. A structural equation model analysis revealed that financial attitude measures, social support from friends, spouses and colleagues, quality of employer pension and investment assets all positively and significantly predicted retirement planning on all groups. They concluded that the reliance of individuals on employer pension related schemes serves as an important source of retirement income to minimise old age poverty and improve welfare during retirement.

Moving away from retirement planning studies conducted in Europe and America, in Nelson Mandela Bay, South Africa, a similar research was undertaken by Zeka and Matchaba-Hove (2016) where they investigated the factors that influenced retirement planning of workers. Social and economic factors influencing retirement planning were specifically researched. The authors conceptualised retirement planning as the intention of a worker to make provision for retirement. While social factor was the engagement of services of retirement planners, economic factor was the financial circumstances of the individual. Supported by the rational choice theory, the study used largely the quantitative approach, while

adopting the descriptive survey design. A sample size of 151 workers was selected from the population using convenience sampling technique. Questionnaires was used to collect data from workers in Nelson Mandela Bay area.

In measuring retirement planning, five items, on a five-point scale were adopted from Jacobs-Lawson and Hershey (2005). The indicators of social factors were measured by 11 items whereas economic indicators were measured by 12 items on a five-point scale. Some items on economic factors were sufficiency in retirement income, decent standard of living, and having sufficient current and future provisions to meet retirement goals. Items on social factors included the sources of financial advice, role of financial planner in considering individuals' longevity risk, meeting individuals to regularly discuss their retirement plan and educating workers about retirement.

The multiple regression analysis performed revealed that individuals who engaged socially by seeking financial advices from friends, families, financial planners planned for their retirement. Additionally, individuals who had decent living standards, had sufficient current and future provisions to meet retirement goals and were self-sufficient were less likely to plan for retirement. It is concluded that workers who source financial advice from friends, families, and financial advisors make retirement plans. The evidence from empirical works of Hershey *et al.* (2007), Hira *et al.* (2009), Hershey *et al.* (2010) and Zeka and Matchaba-Hove (2016) have all revealed in retirement planning literature that the unit of analysis of respondents are formal sector workers.

With a focus on a different group, Boyetey (2019) conducted a study in Ghana on retirement planning among informal sector workers. The study examined the effect of financial attitudes on saving for retirement among workers in the Greater Accra region. Saving for retirement was conceptualised as pension savings while financial attitudes were measured by financial knowledge, financial planning for retirement and financial risk tolerance. The rational choice and life cycle theories were applied. Qualitative and quantitative approaches to research were adopted, based on the survey and cross-sectional designs. Informal sector workers who contributed to the three-tier pension scheme in Ghana as well as those who did not contribute formed the unit of analysis. A sample size of 390 respondents, using multi-stage sampling technique was employed to obtain a representative sample across different categories of informal sector workers.

While the random sampling technique was used to select contributors of pension schemes, the quota sampling technique was used to select non-contributors of pension schemes. In collecting data, interview guide and interview schedules were used. The indicators for financial knowledge were computational capability, emotional loads, trust in pension schemes, and personal competence. The indicators for financial planning were also retirement goal clarity and future time perspective. Indicators of financial risk tolerance were how easily people undertook risky investment as well as undertaking investment even when the chances of making loss was high.

The logistic regression used in analysing showed that financial knowledge, future time perspective, retirement goal clarity and financial risk tolerance were

negatively related to pension savings. Additionally, while financial knowledge and pension savings were statistically significant, retirement goal clarity, future time perspective, financial risk tolerance and pension savings were not statistically significant. The outcome was attributed to lack of education, non-saving culture and unplanned lives in the informal sector. The evidence among informal workers differs from that of the formal sector studies by Hershey *et al.* (2007), Hira *et al.* (2009), and Zeka and Matchaba-Hove (2016).

In another study which was also informed by the rational choice theory, Wong, Osman, Wong, Lin and Ho (2019) examined the effects of individual risk attitudes on the choice of retirement scheme from the perspective of workers in Hong Kong and United Kingdom. The purpose of the study was to ascertain how risk seeking and risk averse individuals' preferences impacted on retirement investment choice. The quantitative approach was employed while also using the experimental design. In two experimental studies, 230 workers from Hong Kong who participated in Mandatory Provident Fund (MPF) and 150 workers from the United Kingdom, who had individual retirement savings account were randomly sampled. A total of five MPF with different financial characteristics was available on the market where participants decided how much to save and whether to save.

Respondents were asked to complete items on a questionnaire where they indicated their risk level. In Hong Kong, participants were allowed to invest in one or more of the five funds while in the UK, participants needed to allocate their savings to a number of funds. Individual risk levels or attitudes were measured based on the investment funds and items were scaled from 1 to 5, where 1 was 'low

risk' and 5 was 'high risk.' Furthermore, in measuring risk attitudes of respondents, they were asked to indicate their preferences for investments which included government bonds (risk averse), stock of companies (risk seeking) or indifference between the two options (risk neutral).

The ordinary least square regression was used to estimate the relationship between risk attitudes and retirement investment choice. Two dummies were created for risk attitudes, while risk averse was the base reference category. The finding was that risk-seeking individuals in MPF showed significantly higher risk exposure than risk-averse persons. Similarly, the relationship between risk attitudes and retirement savings account revealed that the risk exposure of risk-seeking individuals was significantly higher than that of risk-neutral individuals. It was concluded that an individual's level of risk or attitude toward risk predicted the decision to invest in high risk or low risk MPF or retirement savings account products.

In sum, while the study by Boyetey (2019) established a negative and significant relationship between financial risk tolerance and retirement planning among informal sector workers, Wong *et al.* (2019) revealed positive and significant relationship between individuals' risk attitudes and choice of retirement scheme among formal sector workers. The differences arising from the two studies may be accounted for by educational level, differences in statistical techniques and the sector of employment. So far, the rational choice theory has been used in the studies by Hershey, Henkens and Van Dalen, (2007), Hershey *et al.* (2010), Hira, Rock and Loibl (2009), and Zeka and Matchaba-Hove (2016) to explain the effect

of financial attitudes, social and economic factors on retirement planning. It demonstrates the significance of the rational choice theory in shaping the lives of individuals towards retirement planning. In the next part of the review, empirical studies based on the life course theory is presented.

Empirical Review on Life Course Theory

In this section of the empirical review, I focused mainly on the institutional structures that impact retirement planning. First, Granville and Mallick (2004) examined the relationship between pension reforms and domestic pension savings in the United Kingdom. Domestic pension savings was proxied by retirement planning and the purpose of the study was to determine whether changes in pension reforms led to changes in pension savings. The study was underpinned by the life course and life cycle theories and employed the quantitative approach using time series data. Secondary data on pension savings from 1978 to 2000 were compiled from the United Kingdom Department of Work and Pensions and International Financial Statistics of International Monetary Fund.

Domestic pension savings was measured by the differences between total income and consumption while pension reforms focused on changes in privately funded pension schemes, security of pension funds and flexible national legislation on pensions. Using the Auto-Regressive Distributed Lag (ARDL) model, it was found that domestic pension savings increased when security of pension funds were high. Flexibility in national legislations was also found to significantly determine pension savings positively. However, there was no firm evidence that pension

savings increased considerably because of changes in privately pension fund schemes.

It was concluded that effective pension reforms encouraged the build-up of private pension assets that guarantee welfare improvement in retirement. Despite the result, analytically, the use of time series data only provides information on pension savings overtime which are cumulative and does not highlight the individual plans for retirement. Again, differences across time may also influence results of the study and the measurement of total income less consumption used as a proxy for pension savings could be applied in determining any form of savings.

In another study, Han and Sherraden (2007) used primary data rather than time series to examine the effect of institutional structures on retirement savings among low-income workers who were enrolled on Individual Development Accounts (IDAs) in the USA. Individual Development Account is an account where individuals save for future consumption such as retirement. The institutional structures focused on efficiency, transparency, and adequacy of structures that influenced people to save in the IDA. The life cycle and life course theories underpinned the study and the experimental study design of the quantitative approach was employed in the study.

A total sample size of 1,103 participants were assigned to treatment (n=537) and control (n=566) groups. Participants in the treatment group were selected using the simple random technique and only the treatment group was allowed to open Individual Development Account (IDA) during the period. This was followed by 18 months and 48 months follow up survey. Attrition and non-participation in the

experiment led to a reduction in sample size of 330 in the treatment group. Two measures were used to examine retirement savings in IDAs. The first was the average net monthly deposit, which was calculated as net deposit divided by the number of participation months.

The second measure was deposit frequency ratio which measured how regularly participants saved, and was defined by dividing the number of deposit months by participation months. The indicators for efficiency were based on the contribution rate from employers and the perquisites employees receive from work. Whereas transparency was measured by employees' access to information, adequacy was measured by the frequency of employees' use of direct deposits in funding their personal retirement account. The items of the independent variables were measured on a five-point scale and Ordinary Least Square regression analysis was used to estimate the effects of the predictors on retirement saving outcomes.

The findings revealed that institutional structures were significantly and positively associated with saving in Individual Development Account. Participants with matching cap saved more and frequently and individuals with access to information also saved more. While direct deposit was not a significant predictor of savings, participants using direct deposits saved frequently compared to those who were not using direct deposits. It was concluded that, based on the adequacy and efficiency, low-income workers can also save for retirement in the IDA programme.

In a similar study conducted by Curley, Sewamala and Sherraden (2009), the authors analysed the influence of structured savings programme on retirement

savings of individuals in the USA who saved in Individual Development Account. The purpose of the study was to recognise the important role that structured arrangements played in retirement savings. Individual Development Account (IDA) is an account where individuals save for future consumption such as in retirement. The study was underpinned by the life cycle and life course theories. The quantitative approach to research was employed as well as the use of survey and cross-sectional designs. The study used two specific data sets where the first data were gathered from Management Information System (MIS) of IDA and the second was a survey conducted on IDA account holders.

A sample size of 2,211 participants were selected from IDA account holders using simple random technique. Retirement saving performance, which was the dependent variable was measured using average monthly net deposit and it was defined as the net deposit divided by the number of participation months. Institutional structure which is the independent variable was measured by access, information, incentives and facilitation. Access is a continuous variable that indicated the number of deposit locations available to participants and is used synonymously with efficiency. Information which is synonymous to transparency is a continuous variable measured by the availability of number of hours of financial information that participants received.

Facilitation was a dichotomous variable indicating whether a programme offered group mentoring to IDA participants or not. Incentive which was measured by direct deposit was a dichotomous variable. Hierarchical multivariate analysis was used and the findings showed that the more peer modelling and information

sharing, the greater the saving performance and the greater the availability of financial information, the greater the saving performance. Furthermore, institutional characteristics such as access and facilitation were not significantly related to savings outcomes. It was therefore concluded that transparency or sharing of information influenced more people to save than the other variables such as access and facilitation.

Notwithstanding the difference in results between Han and Sherraden's (2007) and Curley, Sewamala and Sherraden's (2009) studies, they all agreed that providing institutional structures explained savings of low-income workers. Additionally, both studies used IDA participants in the USA although the sample units used for the two studies were different. However, Curley *et al.* (2009) found information and expectation to be significant predictors, but facilitation was not significant, unlike the findings of Han and Sherranden (2007) that showed access to information, facilitation and incentives significantly explained savings.

In another study conducted in Japan, Okumura and Usui (2014) examined the effect of pension reform and pension benefit expectations on savings decisions among Japanese. The purpose of the study was to understand whether institutional structures of efficiency which is synonymously used as pension reform as well as pension benefit expectations proxied as adequacy have impact on individual saving decisions for retirement. In that particular study, pension reform was conceptualised as confidence in state pensions and pension benefit expectations was also explained as the amount of money people expected to retire on. Savings decision reflected retirement savings of individuals. The study was grounded in the

life cycle and life course theories and employed the quantitative approach to research. Descriptive survey design was used and data were sourced from the Japanese Study of Aging and Retirement (JSTAR).

Using the simple random and stratified sampling techniques, 2,355 respondents were selected from five municipalities in Japan. Questionnaire was used as the data collection instrument for the survey and in the survey, respondents were to show the level of confidence they have in state pensions. This was measured on a five-point scale. In terms of pension benefit expectations, respondents were asked the extent to which the future of their public pension benefits affected their savings decisions with a focus on the amount of money people expected to retire on and a five-point scale was used to measure responses. The decision to save for retirement was measured on a continuous level.

Multiple linear regression used in analysing data showed that many Japanese in their early 50s were less confident about the future of the public pension system than those in their early 60s. Evidence from the study suggested that a decrease in expectations for future public pension benefits impacted positively on individuals' pension savings goals, whereas a significant positive impact was found between expected amount to retire on and retirement saving decision. The study concluded that pension reforms and benefits expectations were necessary in accumulating wealth which helps people to avoid poverty and increase their well-being during retirement.

However, in a related study by Hayley (2019), the qualitative approach was employed to examine the connection between pension policy and personal financial

decisions of workers in the United Kingdom. Personal financial decisions were proxied on personal decisions to save for retirement whereas pension policies reflected changes in the structure of pension provision and security of state pensions. The study was supported by the rational choice, life course and life cycle theories. The exploratory research design which follows the constructionist version of the grounded theory method was adopted in the study. Purposive and convenient sampling techniques were used in selecting 42 participants for the study.

Data were gathered from workers between 22 and 45 years from three large private sector organisations. The approach to collecting data from participants were through in-depth, semi-structured, and face-to-face interviews. Data were analysed using systematic, iterative approach which allowed meanings to emerge from the data. The findings showed that pension savings were low among workers and what accounted for it was individual prioritisation of maintaining current lifestyles in order to connect to the subjective understandings of the social, cultural and moral worlds. The research also identified changes to the structure of pension provision and insecurity of state pensions as influencing personal financial decisions. Pension decisions were also not connected to ideas of the future and instead related to current context. The study concluded that providing security to pension contributions and structure of pension systems influenced people's decision to save.

In a study on institutional structure, the quantitative approach was employed to examine the role of pension system design on future pension savings in an aging world in 70-80 countries. The study was undertaken by Amaglobeli, Chai, Dabla-Norris, Dybczak, Soto and Tieman (2019) across countries in Europe, Asia, Africa,

North and South America and Australia. The study was supported by the life cycle and life course theories and conceptualised pension system design as pension generosity, characterised by the product of benefit and coverage ratio and existence of a defined contribution scheme. Data were collected from over seventy countries with differences in pension system arrangements. The sample contained more than 4,500 observations spanning the period 1960 to 2015.

Data on pension benefits paid and savings in defined contribution schemes for the countries in the same period were used. The panel data were unbalanced, and the number of observations varied across countries, mainly because most countries started migrating to defined contribution schemes from the year 2008. The fixed-effect panel regression was used to estimate the effect of the predictors on workers' saving decisions. The findings were that public pension systems impacted workers' decision to save. The impact on private pension saving depended largely on pension system generosity, which encompassed the size of benefits per person and coverage.

Although the studies by Okumura and Usui (2014) and Hayley (2019), established different reasons that informed workers' decisions to save for retirement, Hayley (2019) established the importance of socio-cultural roles and structures in society affecting retirement saving decisions. In a similar vein, the study by Amaglobeli *et al.* (2019) added to the contribution of research on institutional structures. However, its finding does not indicate the pension systems of each of the 70-80 countries influencing future savings on retirement. The results

project an omnibus outcome which makes it difficult to single out an effect of a pension system of one country on savings for retirement.

In sum, it has been evident that institutional structures, supported by pension reforms and systems play influential roles in the saving decision of workers towards retirement. The outcomes of various findings from the works of Granville and Mallick (2004), Han and Sherraden (2007), Curley *et al.* (2009), Okumura and Usui (2014) and Hayley (2019) who used different approaches to research have shown that without institutional structures, individuals or workers may not be in the position to save for retirement over their life course. This may lead to old age poverty and threatened welfare of retirees. In the next section of the literature review, empirical findings on retirement planning with evidence from the life cycle theory is presented.

Empirical Review on Life Cycle Theory

Dan (2004) examined retirement planning and expectations of both workers and retirees between the ages of 19 and 96 years in Cleveland, Ohio. The purpose of the study was to understand whether economic factors such as annual household income, confidence in economy and pensions influenced workers and retirees to plan their retirement by anticipating sources of retirement income. The main theories used for the study were the life course and life cycle. Quantitative approach to research was adopted and the cross-sectional survey design was used in the study. The study employed the simple random technique to sample 404 individuals who lived and worked in Cleveland, Ohio. Data were collected using questionnaires by

way of electronic mailing system. Retirement planning was assessed by how much they have thought about retirement.

While confidence in the economy was measured by the existing economic conditions in the country, the confidence in social security and pensions was also measured by items identifying the satisfaction of respondents on the social security pensions. All variables were measured on a five-point scale with annual household income being measured on a continuous level. Ordinary Least Square (OLS) regression was used to establish the effect of economic expectation on retirement planning. The result was that younger people were reported to have anticipated relying more on other financial assets during retirement than the retirees.

The study's finding also showed that retirees had low confidence in the economy compared to the younger individuals. A significant relationship between respondents' confidence in the economy and propensity to save for retirement was established, due to the timing of decisions. The study concluded that inasmuch as economic security was important in old age, the elderly considered only social security as the source of retirement income, which would be inadequate to guarantee improved welfare in retirement. However, the timing of decisions among the elderly may have affected their ability to save, possibly because during their active working years, they had less confidence in the pension system, which influenced their decision to rely only on social security. The study also failed to explain what accounted for the low confidence in the economy, which demonstrate that the absence of institutional structures may affect decisions of individuals.

In a related study, Adami and Gough (2008) investigated socio-economic factors that influenced individual saving for retirement of workers in Italy and United Kingdom due to the differences in pension policies and cross-national saving policies. The study employed the quantitative approach, using cross-sectional design to study the retirement plans of workers between 19 years and 65 years. The dependent variable, saving for retirement was proxied as individual's retirement planning. A sample of 300 workers in United Kingdom were randomly selected from the population of people resident in England, who were listed on the databases of five financial services companies, and had enquired about pension products. A postal survey was sent out to the respondents through a questionnaire consisting of 32 items, eliciting social, economic and demographic information related to long-term saving and pensions.

On the other hand, 300 workers were also selected from the Italian dataset using simple random sampling techniques from a survey by Bank of Italy where both dependent and independent variables were extracted. In order to examine the social and economic influences in saving for retirement, a number of statements concerned with behaviours and attitudes towards pensions was asked. Savings for retirement was measured by determining whether a person owned a retirement account or not and four dimensions of economic factors determining saving for retirement was investigated. The first was the expected proportion of income to be received after retirement was assessed and this provided the basis of the level of confidence about post-retirement income and motivation to save for retirement.

The second, third and fourth dimensions measured were the amount of saving set aside for retirement each year, membership in a private pension scheme and the mixture of long-term financial assets owned by respondents. The responses were all measured on a five-point scale. The multiple linear regression model was used to analyse the data and the findings revealed that English respondents make use of private saving more and that economic factors impacted their savings for retirement significantly more than their Italian counterparts. Italian respondents also showed slow trend in purchasing pension products than English respondents. Further, the analysis indicated that English respondents across all ages, education, sex and income groups save for retirement significantly more than their Italian counterparts.

The result established differences due to variation in culture and time of implementation of pension systems between the two countries which were not accounted for in the study. England had a defined contribution system in place earlier than Italy which could have accounted for the differences in attitudes towards saving for retirement. Additionally, the study undertaken in England retrieved secondary information from five financial service companies whereas secondary data from Italy were taken from Survey of Household Income and Wealth (SHIW) which had different respondents based on different socio-economic backgrounds. The English whose data were taken from the database of financial companies demonstrated good attitudes of saving compared to data drawn from SHIW among Italians. The extraction of data from Bank of Italy questionnaire did

not give the exact measure of variables compared to the cross-sectional study in England.

In another study, Fernandez-Lopez, Otero, Vivel and Rodeiro (2010) investigated the driving forces of individuals' retirement planning in eight European countries. The study ascertained differences in retirement planning based on demographic, social and economic factors. Retirement planning was conceptualised as savings for retirement. The assumptions of the life cycle and life course theories were used and five hypotheses were formulated for the study. The first hypothesis was that older individuals are more likely to save for retirement. Second, individuals who have higher level of education are more likely to save for retirement. Third, individuals with large family sizes are less likely to save for retirement. Furthermore, individuals with greater household income are more likely to save for retirement and women are less likely to save for retirement than men.

The research was quantitative in nature and cross-sectional design was applied. A sample size of 6,036 individuals between the ages of 18 and 65 years was selected using the multistage sampling technique. The countries that respondents were selected from were France, Germany, Netherlands, Italy, Poland, Spain, Sweden and the United Kingdom. Data collection were done using structured questionnaire and Computer Assisted Personal Interviewing (CAPI). The dependent variable was tested by asking; *"What would you save for?"*

The option of answers provided were retirement, housing, consumption, holidays, and car. The independent variables were age, income, family size, education and gender. Age was a continuous variable and was squared to capture

potential non-linearities. Formal education was measured ranging from primary to university degree. The study used the number of family members to measure family size. The monthly net household income was obtained on a continuous form. The probit regression model was used to analyse the decision to save for retirement.

The findings were that although the percentages of savers for retirement varied widely across countries, the saving behaviour was quite similar. Age, educational level, family size and household income were positively and significantly related to retirement planning such that adults, high-income earners, low family sizes, and high educated individuals were more probable to save for retirement. Men were also more probable to save for retirement than women. However, country-institutional factors played an important role in an individual's retirement planning.

Comparatively, in the two studies by Adami and Gough (2008) and Fernadez-Lopez *et al.* (2010), it was evident that country-institutional factors, social and economic factors impacted workers ability to save for retirement. Although, there were similar findings on the impact of social and economic factors on saving for retirement, both studies used different measurement scales in assessing saving for retirement. In the two studies, socio-economic factors were denoted by demographic variables such as sex, age, income, education, marital status and number of dependents or family sizes. However, the influence of other social factors such as sources of information which helps individuals to learn was not considered in the study.

In order to ascertain the impact that social information have on workers ability to save for retirement, literature from Clark and Lusardi (2011) was reviewed. The authors examined social influence of the provision of retirement information by employers on workers' saving for retirement in USA. The purpose of this research was to understand whether providing retirement planning information to workers impacted on their decision to plan for retirement through savings. The theoretical position of the study was underpinned by both the rational choice and life cycle theory. The study employed the quantitative approach. The descriptive survey and experimental designs were also used. The sampling procedure was that 4,000 employees who were hired between 2008 to 2010 and were not participating in retirement as of February 2011 were randomly selected and assigned to three groups.

The first group of employees were given corporate flyers which had brief investment and retirement information on signing up for the company's retirement savings plan. The second group was given same flyer and in addition, were provided a statement of company-wide participation rate to test the effect on whether individuals change their behaviour based on knowledge of what their peers were doing. The third group was the control group who were neither given any flyer nor additional information. The study found out after a period from participants on whether they have opened a retirement savings account and a dichotomous response of 'yes' or 'no' was used. Additionally, the frequency of contributing into the retirement account was measured using a five-point scale.

Participants were further asked the extent to which they were influenced by the corporate flyers or additional information and this was measured on a five-point scale. Data analysed via multiple regression showed that workers in the treatment group increased their annual contributions from their salary than individuals in the control group. The test for differences results revealed that there was 15% increase in participation for those who received the flyer than for those in the control group, but there were no differences in the responses to the flyer with and without the peer effect information. The study concluded that information and benefits to employees influenced retirement savings of employees, which is an important role the employer can play in giving employees a guaranteed social and economic security during retirement.

With most of the studies on social and economic factors impacting retirement plans of workers being conducted in Europe, Mohd *et al.* (2015) closed such geographical gap by investigating the effect of age, income, education and gender on retirement planning among employees in the Malaysian Health sector. Retirement planning was conceptualised as accumulating funds or wealth for the period of retirement. The study was quantitative in nature and the correlational study design was employed. The unit of analysis were employees in the Department of Food Safety and Health and Department of Health. A sample size of 110 health workers were sampled from the population using the simple random technique.

Questionnaire was used as data collection instrument. On the questionnaire, items such as age, marital status, educational level, and income of respondents was provided. Two indicators were used to measure retirement planning. The first was

whether a person had a savings plan for retirement and the second was whether workers sought expert advice on retirement plans. Pearson correlation analysis was applied in establishing the relationships between the predictor and retirement planning. The findings concluded that gender differences existed and that men were found to be better planners for retirement than women. Age, income and educational level were all positive and had statistically significant impact on retirement planning of employees in Malaysian health sector.

In another study, Jais and Asokumar (2019) investigated the influence of social factors on retirement planning amongst employees in the Malaysian energy industry. Social influence was conceptualized as individuals' social exposure to retirement planning which involved planning for a sustained life from work to retirement. The life course and life cycle theories were applied to this study to view retirement as a transition and a person's individual history and attributes that influence the pathways people take to accomplish the transition. The entire study was based on the quantitative approach. The cross-sectional research design was applied. Both stratified and simple random techniques were used in selecting respondents.

First, employees from Petroliam Nasional Berhad (PETRONAS) and Tenaga Nasional Berhad (TNB) which account for about 36 percent of the market capitalisation in Malaysia stock market formed the unit of analysis. The stratified sampling technique was used to group the employees of the two institutions who were the targeted population into two strata. Subsequently, the simple random technique was employed to draw a sample of 171 respondents. The power analysis

was used in determining the sample size by following recommendations from Fabrigar, Porter and Norris (2010). Questionnaire was used as data collection instrument and the indicators of social influence were social support or awareness that people received from colleagues, friends and families towards retirement planning. The indicator for retirement planning was whether a person had a retirement savings programme or scheme.

Retirement planning was adapted from Noone *et al.* (2010) and Van Rooij, Lusardi and Alessie (2011) and consisted of 15 items. Additionally, social influence was adapted from Reitzes and Mutran (2004) and Noone *et al.* (2010) with five items. The items were all measured on a five-point scale and Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to analyse the effect of social factors on retirement planning. The finding was that the influence of social factors positively impacted employees' retirement planning in Malaysian energy industry. The conclusion from the study is that retirement planning is important and employees are required to save early rather than when approaching their retirement age.

To conclude the empirical studies, literature from Bednarczyk, Skibinska-Fabrowska and Szymanska (2021) was reviewed. The authors conducted a study on retirement planning among workers in Poland. The purpose of the study was to analyse the economic and social factors that influenced how workers voluntarily saved for retirement. The survey design of the quantitative approach was employed in the study. The population of the study was individual non-agricultural entrepreneurs in Poland. The population was first put into clusters using the cluster

sampling technique. Afterwards, the simple random technique was used in selecting 1,067 respondents. The primary approach of collecting data through a direct survey was carried out using Computer Assisted Web Interview (CAWI).

Data were collected through the use of questionnaire. The indicator for retirement planning was whether individuals had retirement savings in different financial products. The socio-economic factors included the subjective assessment of financial situation of workers, share of revenue from business activity, gender, age, family situation and forms of gathering pension savings. Self-assessment of financial situation was measured by bad, average or good and share of revenue was categorised as 'only income,' 'main income,' and 'complementary income.' Family situation was measured by persons without dependent and persons with dependent.

Respondents were also asked what they would do to achieve a desired standard of living in retirement from multiple answers. Logistic regression was performed to analyse the result and the findings showed that decisions of individuals concerning saving for retirement were significantly influenced by gender, age, family situation, income, educational level, share of revenue and subjective assessment of financial situation. It was also found that workers in Poland opt for non-conventional forms of retirement savings compared to accumulating retirement savings using conventional approaches.

However, the study was undertaken during the coronavirus pandemic and responses from workers could have impacted the results especially due to the economic situation where there was dynamic increase in real estate prices and extremely low levels of interest rates. In the same vein, responses were from self-

employed persons in Poland and differences in social and economic characteristics may have also influenced the results of the study. Summaries of empirically reviewed works are presented in tabular form based on the underlying theories and thematic issues. The first table (Table 1) contains the summary of the review based on the Rational Choice Theory.

Table 1: Summary of Empirical Review on Rational Choice Theory

Author & Year	Purpose	Theoretical Basis	Research Approach /Design	Sampling procedure	Data Collection Instrument	Variables	Indicators	Analytical Technique
Hershey, Henkens & Van Dalen (2007)	Personal characteristics in retirement planning using cross-cultural dimension among Dutch and American workers	Rational choice and life course	Quantitative / Cross-sectional, survey	Simple, convenient, and stratified techniques	Questionnaire	Retirement Planning (Dep) (Indep. Var.) Financial Attitudes	Thought about retirement Attitudes towards retirement (Future time perspective, Retirement goal clarity), Financial Knowledge	T-test, OLS regression, descriptive statistics
Hira, Rock & Loibl (2009)	Determinants of retirement planning among workers in the United States of America	Rational Choice	Quantitative / Survey, Cross-sectional	Simple random	Questionnaire	Retirement Planning (Dep) (Indep. Var) Financial Attitude	Ownership of personal retirement account; Frequency of maximising contributions; Financial Knowledge, Attitudes towards retirement	Logit regression; OLS regression

Table 1 cont'd

Hershey, Henkens & Van Dalen (2010)	Social, and economic factors influencing retirement planning of Dutch and American workers between the ages of 25 and 64 years	Rational Choice/Life Course	Quantitative / Cross sectional	Stratified, Simple random & Convenience	Questionnaire	Retirement Planning (Dep.) (Indep. Vars) Financial Attitudes Social Factors Economic Factors	How well individuals have thought about retirement Future time perspective, Retirement goal clarity & Financial Knowledge; Influence from friends, families, spouse & coworkers; Quality of pension scheme, investment asset	Mean score analysis and Structural Equation Model
Zeka and Matchaba -Hove (2016)	Factors that influenced retirement planning of workers in Nelson Mandela Bay, S/Africa	Rational Choice	Quantitative / Descriptive Survey	Convenience sampling	Questionnaire	Retirement Planning (Dep) (Indep. Vars) Social Factors	Intention of a worker to make provision for retirement Engagement of services of retirement planner	Multiple regression

Table 1 cont'd

						Economic Factors	(Sources of financial advice, role of financial planner etc). Financial circumstances of individual (Retirement income sufficiency, decent standard of living etc) Pension savings	
Boyetey (2019)	Financial attitudes on saving for retirement among informal sector workers in the Greater Accra of Ghana	Rational Choice & Life Cycle	Quantitative, Qualitative/ Survey & Cross-sectional	Multistage, Random & Quota	Questionnaire	Saving for Retirement/ Retirement Planning Financial Attitudes	Financial Knowledge; Financial Risk Future time perspective & Retirement goal clarity Presence of Individual Retirement Account	Logistic regression

Table 1 cont'd

Wong *et al.* (2019)	Effects of individual risk attitudes on the choice of retirement scheme of workers in Hong Kong and United Kingdom	Rational Choice	Quantitative / Experimental design	Simple random	Questionnaire	Choice of Retirement Scheme/ Retirement Plan Individual Risk Attitude	Financial Risk Tolerance (Risk level of investment fund)	Standardise risk index, OLS regression

Source: Author's Compilation (2021)

The summary depicts that, research works have been reviewed from different countries in Europe, America, Africa and Asia. While the application of the rational choice theory has largely been employed to study financial attitude, it has been tilted towards the quantitative research approach. In Table 2, empirical works reviewed under the life course theory highlighted key research methodological approaches in the study of retirement planning.

Table 2: Summary of Empirical Review on Life Course Theory

Author & Year	Purpose	Theoretical Basis	Research Approach /Design	Sampling procedure	Data Collection Instrument	Variables	Indicators	Analytical Technique
Han and Sherraden (2007)	Effect of institutional structures on retirement savings among low-income workers who were enrolled on Individual Development Accounts (IDAs) in the USA	Life cycle & Life course	Quantitative/ Experimental design	Simple random	Interview schedule	Retirement Planning (Indep. Var) Institutional Structures	Savings for Retirement on IDA Efficiency, Adequacy, Transparency and Sustainability	OLS regression, Hierarchical regression
Curley, *et al.* (2009)	Influence of structured savings programme arrangement on retirement savings of individuals who saved in Individual Development Account in USA	Life cycle & Life course	Quantitative/ Survey, Cross-sectional	Simple random	Questionnaire	Retirement Savings Institutional Structure	Net deposit by number of months of payment Access (efficiency), incentive (Adequacy), information (transparency) and facilitation (Sustainability)	Hierarchical Multivariate Analysis

Table 2 cont'd

Okumura and Usui (2014)	Effect of pension reform and pension benefit expectations on savings decisions among Japanese	Life cycle and life course	Quantitative/ Descriptive survey	Simple random and stratified	Questionnaire	Saving Decision Institutional Structures	Decision to save for retirement Pension reform (efficiency) Benefit expectation (Adequacy)	Multiple linear regression
Hayley (2019)	The connection between pension policy and personal financial decisions of workers in the United Kingdom	Rational choice, Life cycle and Life course	Qualitative/ Exploratory	Purposive and convenient	Interview guide	Personal financial decisions Pension policy	Decision to save for retirement Efficiency (Changes in the structure of pensions) Sustainability (Security of state pensions)	Systematic Iterative Approach
Amaglobeli *et al.* (2019)	The role of pension system design on future pension savings in an	Life cycle and Life course	Quantitative/ Experimental	Simple random	Questionnaire	Pension Savings	Savings in a defined contribution scheme	Fixed effect panel regression

Table 2 cont'd

aging world in 70-80 countries.		Pension system design	Adequacy (pension generosity) Efficiency (existence of a defined contribution scheme, coverage ratio)

Source: Author's Compilation (2021)

The tabular presentation of the reviewed literature on life course theory focused on institutional structures that affect retirement planning of workers. It evinced that, within the Ghanaian literature, little is known on how institutional structures affect workers. Highlights on the empirical review based on the life cycle theory (Table 3) is also provided across different countries.

Table 3: Summary of Empirical Review on Life Cycle Theory

Author & Year	Purpose	Research Approach /Design	Sampling procedure	Data Collection Instrument	Variables	Indicators	Analytical Technique
Dan (2004)	Examined retirement planning and expectations of both workers and retirees between the ages of 19 and 96 years in Cleveland, Ohio.	Quantitative/ Cross-sectional	Simple random	Questionnaire	Retirement Planning Socio-Economic Factors	Source of retirement income/How much thought of retirement Annual household income, confidence in economy and pensions	OLS Regression
Adami & Gough (2008)	Investigated socioeconomic factors that influence individual saving for retirement of workers in Italy and United Kingdom	Quantitative/ Cross-sectional	Simple random & Stratified	Questionnaire	Retirement Planning/Saving for retirement Socio-economic factors	Ownership of retirement account expected proportion of income to be received after retirement, level of confidence about post-retirement income	Multiple linear regression

Table 3 cont'd

Fernandez-Lopez, et al. (2010)	Investigating the driving forces of individuals' retirement planning	Quantitative/ Cross-sectional	Multistage, simple random	Questionnaire	Retirement Planning Social, economic and demographic Factors	Saving for retirement Age, education, income, gender, family size and marital status	Probit regression
Clark & Lusardi (2011)	Examine social influence of the provision of information by employers on retirement for workers on saving for retirement in USA	Quantitative/ Experimental, Descriptive survey	Simple random	Questionnaire	Retirement Planning Social influence	Decision to save for retirement by opening retirement account Investment/Retirement information, company-wide participation rate	Multiple Regression
Mohd *et al.* (2015)	Effect of age, income, education and gender on retirement planning among employees in Malaysian Health sector	Quantitative/ Correlational	Simple random	Questionnaire	Retirement Planning Socio-economic factors	Presence of a retirement saving plan/Seeking of expert advice on retirement Age, income, education, and gender	Pearson Correlation

Table 3 cont'd

Jais and Asokumar (2019)	Influence of social factors on retirement planning amongst employees in the Malaysian energy industry	Quantitative/ Cross-sectional	Stratified and Simple random	Questionnaire	Retirement Planning Social Influence	whether a person had a retirement savings programme or scheme social support or awareness that people received from colleagues, friends and families	Partial Least Squares Structural Equation Modelling (PLS-SEM)
Bednarczyk, Skibinska-Fabrowska and Szymanska (2021)	Analyse the economic and social factors that influence how independent workers voluntarily saved for retirement in Poland	Quantitative/ Survey design	Simple random	Questionnaire	Retirement Planning Socio-economic factors	Financial instrument that individuals had accumulated their retirement savings (Bonds, treasury bills, shares, etc.)/Sources of retirement income Subjective assessment of financial situation of workers, share of revenue from business activity, gender, age, family situation and forms of gathering pension savings	Logistics Regression

Source: Author's Compilation (2021)

Lessons Learnt, Critiques and Gaps

It emerged from the empirical review that, in studying retirement planning, techniques such as logistic regression, structural equation modelling, hierarchical regression and t-tests have been adopted. Qualitative research approach employed thematic analysis in analysing data. Studies also showed that questionnaire and interview guide were the dominant data collection instruments. Although, the mixed method approach was used by some authors, retirement planning studies have largely tilted towards the quantitative research approach. In circumstances where it was difficult to obtain sampling frame for workers, non-probability sampling techniques were employed. The current study favours the mixed method research approach since it allows flexibility in using different techniques in qualitative and quantitative approach to collect data and analyse it.

It also became evident that the widely used measure of retirement planning has been the ownership of a personal retirement account purposely held for the period of retirement and has mostly been measured using dichotomous variable of whether an individual has a personal retirement account or not. Socio-economic factors influencing retirement planning have been limited to the use of demographic indicators such as age, gender, education, income, and marital status. Other social issues such as social influence from friends, families, spouses, and coworkers have been employed in research. Economic factors have been expanded to include quality of pension schemes, standard of living, and other economic conditions. The indicators of socio-economic factors have been measured quantitatively on scales of five.

The mediating role of financial attitude in the relationship between socio-economic factors and retirement planning has not been given adequate attention. In the same vein, the mediating role of financial attitude in the relationship between institutional structures and retirement planning is no exception in empirical studies and this study address these gaps. Studies on institutional structures have left out efficiency, transparency, sustainability and adequacy as well as the important roles that key informants such as pension fund managers, administrators, and regulator play in ensuring that workers plan their retirement. This research incorporated the views of service providers in the pension industry on the institutional structures affecting retirement planning.

Conceptual Framework of Life Course and Retirement Planning

The conceptual framework of the study presents the inter-relationship that exist between socio-economic factors, financial attitudes, and institutional structures and retirement planning of healthcare workers. The assumption from the framework is that if workers have good social and economic backgrounds, they will put in retirement plans by accumulating wealth. Additionally, if workers have good financial attitude, they will be able to plan their retirement. Furthermore, if the state offers the right institutional structure to healthcare workers, then they will be able to take advantage of the structures in place and plan their retirement which will improve their standard of living and welfare during retirement, hence reducing old age poverty. The conceptual framework of the study is presented in Figure 1.

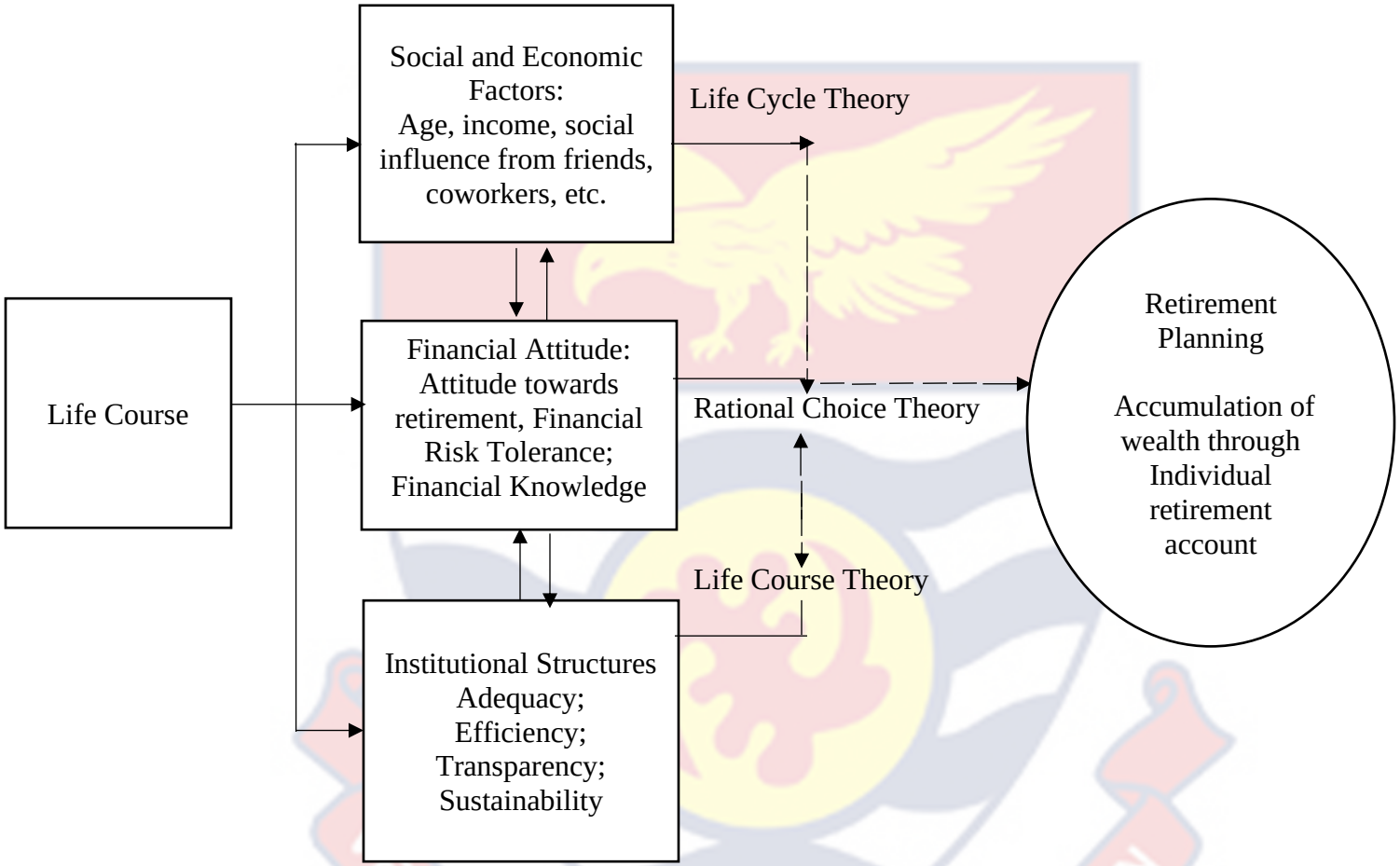

Figure 1: **Conceptual Framework of Life Course and Retirement Planning**

Source: Author's Construct (2022) based on Kohli (2007), Hershey *et al.* (2010), and Wong *et al.* (2019)

Figure 1 illustrates that for healthcare workers to plan their retirement by accumulating wealth, they are required to go through life course activities. These life course activities include the individual being influenced by social, and economic factors, developing good financial attitudes and taking advantage of institutional structures provided by states. The ability of an individual to develop good financial attitudes such as being less risk tolerant and gaining financial knowledge depends on the social, and economic factors such as education, age, income, and social influence from friends, coworkers and society. Moreover, as demonstrated by the rational choice theory, workers who have good financial attitude, are able to plan their retirement by accumulating wealth. Moreover, the ability of healthcare workers to accumulate wealth is dependent on social, and economic factors.

Furthermore, the institutional structures of state pensions such as adequacy, efficiency, transparency and sustainability are dependent on healthcare workers who have good financial attitudes. Sustainable, adequate, efficient and transparent pension systems help individuals to develop good financial attitude and that allows people to plan their retirement by accumulating wealth. In addition, the effectiveness of state pension systems is expected to influence healthcare workers to contribute and build wealth directly towards their retirement, as demonstrated by the life course theory. These institutional structures serve as the foundation for healthcare workers to accumulate wealth during their working lives.

CHAPTER FOUR

RESEARCH METHODS

Introduction

In this chapter, the methodology used to examine the effect of life course on retirement planning is explained. Brannen (2005) notes that the relevance of presenting research methods is to offer suitable techniques for resolving the problem and order of accuracy of the result of a method. Similarly, Silverman (2006) presents that research methods offer a path, plan and approach suitable in relating research problems to appropriate empirical methods. According to Sarantakos (2012), research methods are the techniques, arrangements and processes used by a researcher to help in sampling and collecting data to find solutions to problems.

The methodological procedure applied in conducting the study commenced with the research philosophy, followed by the research approach. It was followed by justification of the study design, study institutions, population, and sampling procedure. Subsequently, data collection, instrument design, pre-testing of instruments, ethical considerations and actual field work were highlighted. Finally, the data processing and analytical methods used in analysing the objectives of the study were presented as well as a summary of the chapter on research methods.

Research Philosophy

Research requires a philosophical underpinning for the chosen research design. Davies and Dodd (2002) explain research design as the overall strategy

chosen to integrate different elements of the study in a coherent and logical way in ensuring that the research problem is effectively addressed. Charmaz (2004) notes that this constitutes the outline for the collection, measurement and analysis of data. As a result of this, there have been varying perspectives and debate on research paradigms which demonstrate the relevance of research strategy to social enquiry. In Neuman's (2011) view, a number of research paradigms are found to shape the researcher's view of observing, measuring and understanding social reality. The research paradigms are positivism, interpretivism, pragmatism, critical realism, feminism and postmodernism.

Regardless of the different paradigms, Creswell (2009) and Griffee (2012) assert that the three major research paradigms that underpin most research are positivism, interpretivism and pragmatism. Smith (2015) notes that each of the three major research paradigms are grounded in ontological, epistemological and axiological assumptions which leads to the adoption of qualitative, quantitative or mixed methods in research.

To begin with, Age (2011) asserts that the ontological position of positivist paradigm views social reality as objective, existing outside of the individual and that knowledge on the realities or facts can be known through the use of scientific methods. It implies that the science of knowing can be achieved through sensory experiences with the collection of verifiable, testable and valid empirical evidence that support theories or hypotheses which follow the deductive approaches to research. Creswell (2013) also opines that the main tenet of the positivist paradigm is the deterministic view of the universe, implying that to every consequence there

is a cause. Similarly, O'Leary (2017) notes that the positivist paradigm shows the existence of objective knowledge, which can be observed in a consistent manner, proven, replicated, generalised, and verified through scientific means with value free inquiry.

According to McKenzie and Knipe (2006), positivists assume that objective facts give good scientific evidence using quantitative methods while concentrating on measurable facts that produces meaningful data. For instance, Hershey *et al.* (2010) explain that financial attitude dimensions such as financial risk tolerance, financial knowledge, and attitudes towards retirement can only be measured quantitatively. In determining objectively measurable data, Sarantakos (2005) and Neuman (2011) show that positivists use study designs such as survey, cross-section, quasi-experimental and experimental designs and adopt probability sampling methods of stratified technique, simple random, cluster sampling and systematic sampling techniques.

In studying retirement planning, quantitative approaches have also been employed to objectively measure data by looking at the thoughts of planning for retirement, having individual retirement accounts and maximization of retirement contributions. These measurable approaches in understanding retirement planning were justified by the works of Hira *et al.* (2009), Hershey *et al.* (2010), Zeka and Matchaba-Hove (2016), Wong *et al.* (2019) and Boyetey (2019). Furthermore, socio-economic characteristics such as age, income, education, and gender have all been established in relation to retirement planning using quantitative approaches of

measurement through the works of Fernandez-Lopes *et al.* (2010) and Clark and Lusardi (2011).

Epistemologically, Brannen (2005) shows that the view of positivist paradigm in research defines the method of data collection, instrument, analysis and interpretations. Additionally, positivists collect data using interview schedules and questionnaire, and according to Creswell and Plano-Clark (2007), data are collected at every stage of the research process in a value-free manner where the researcher is independent and maintains an objective stance. The orientation of the positivists also expresses variables in frequencies and numbers using statistical methods such as parametric and non-parametric techniques to draw conclusions. The positivists paradigm attests its usefulness in examining the effect of financial attitude on retirement planning in the current study. It is also within the positivists paradigm that the study situates the association between income, education, marital status, age, type of healthcare profession and retirement planning.

Lee and Nickerson (2010) also assert that the scientific research of positivists commences with a theory followed by either supporting or refuting the theory based on data collected. In the present study, I related this to the life cycle theory where the position of the theory is that people who earn high incomes and have higher level of education are more likely to plan for retirement. On the other hand, the life course theory posits that where there are favourable institutional structures, people are more likely to engage in retirement planning, as same were applied in studies by Hira *et al.* (2009) and Bednarczyk *et al.* (2021). However, in applying the scientific principles of positivism, Neuman (2011) and Creswell

(2013) addressed that it is not flexible. This implies that positivists see things as they are and tend to disregard unexplained phenomenon, unlike interpretivism which helps to provide different perspective to social enquiry.

The ontological position of the interpretivism paradigm is the relativeness of reality. This is explained by Johnson and Onwuegbuzie (2004) that, people experience reality in multiple and different ways based on what individuals feel, think or see. Epistemologically, Creswell (2014) notes that interpretivists describe knowledge, based not only on observable phenomenon, but also on subjective beliefs, reasons, values, and understandings. Smith (2015) argues that to the interpretivist, knowledge is constructed and it is about the way in which people make meaning in their lives. Pedro, Leitao and Alves (2016) provide the axiology of interpretivism paradigm as that, researchers have values and find it difficult to be separated from it, leading to the subjectiveness in such studies.

Blaikie (2010) observes that interpretivism paradigm uses the qualitative research approach because it allows for in-depth examination of assumptions, questions and continuous construction of the world. The epistemic interpretivist paradigm is applied to qualitatively investigate from the perspectives of pension fund regulators, pension fund managers and pension fund administrators, how adequacy, efficiency, sustainability and transparency of institutional structures influence people to plan their retirement. By this approach, knowledge is acquired from these industry players based on their point of view, which is grounded in their world of experience, as Kumar (2011) supports that knowledge emerges through social construction.

According to Creswell (2012), interpretivists employ study designs such as case studies, hermeneutics, ethnography and phenomenology and use data collection methods, namely, interviewing, focus group discussions and observations. Bryman (2012) also notes that interpretivists employ the non-probability sampling techniques, namely, quota sampling, accidental, convenience and purposive sampling. It is within this epistemic interpretivist tradition that pension fund managers, pension fund regulator and pension fund administrators were purposively sampled to allow for a deeper interrogation on how institutional structures affect retirement planning. Despite the flexibility of the interpretivist paradigm and its ability to develop empirically supported new ideas, Babbie (2007) and Neuman (2011) criticise its findings for lack of reliability, generalisability and replicability due to the subjectiveness and use of small sample sizes.

In order to overcome the weakness, some researchers recommend pragmatism as a way of explaining social reality. Charmaz (2004) notes that the ontological position of pragmatism is that, there can be single or multiple realities to an empirical enquiry. Bryman and Bell (2007) also opine that pragmatists believe truth is what works and so it does not bound itself to any system of reality and philosophy. The axiology of pragmatism as suggested by Creswell (2009) is that, there is no guarantee that something is good or bad and that, values are produced by human beings. Epistemologically, Pleasants (2003) shows that, pragmatists believe the existence of objective reality apart from human experience. According to Goldkhul (2012), research that are conducted within this philosophical stance

uses the mixed methods design because, researchers can draw at will from the assumptions of both quantitative and qualitative approaches.

Smith (2015) explains that pragmatic researchers choose methods, procedures, designs, data collection instruments, and analytical tools that are convenient in addressing issues of study. This illustrates that the epistemic pragmatism tradition promotes methodological pluralism and uses both statistical and non-statistical techniques in analysing data. Considering the issues, the assumptions of pragmatism adequately addressed how institutional structures affect retirement planning, because the study requires collecting qualitative data from pension industry players and quantitative data from healthcare workers. Within the pragmatism paradigm, data collected from workers were situated in quantitative research while those collected from pension industry players were placed within the qualitative research. Its adoption was appropriate because Boyetey (2019), among others, applied this philosophical standpoint to similar studies.

Research Approach

Considering the ontological, epistemological and axiological arguments of the research paradigms, the mixed method research approach was employed in the study. One of the reasons for using the mixed methods research approach is to objectively measure how financial attitude and socio-economic factors affect retirement planning. Additionally, it is to establish the mediating effect of financial attitude dimensions in the relationship between socio-economic factors, institutional structures and retirement planning. The other reason is to have in-depth

understanding on how institutional structures affect retirement planning from the perspectives of both healthcare workers and pension industry service providers. The mixed method approach, according to Johnson and Onwuegbuzie (2004), allow different approaches in answering research questions, rather than restricting the choices of the researcher, hence, its application in the current study.

Although the application of the mixed methods has not been predominantly used in reviewed studies on retirement planning, it was employed in the current study due to its ability to allow for the collection of various types of data in order to understand the research problem. Neuman (2011) also notes that, the mixed method combines both quantitative and qualitative data collection and analytical techniques. According to Creswell (2014), the use of the mixed method allows for studies to be conducted quantitatively from a broader survey in order to generalise findings to the population while also using qualitative methods to collect thorough views from key informants.

Based on the underlying assumptions of the mixed method, retirement planning and financial attitude dimensions such as financial knowledge, financial risk tolerance and attitudes towards retirement, were studied quantitatively, as justified by the works of Wang *et al.* (2014) and Boyetey (2019). For instance, while retirement planning was measured on nominal scale, I used the interval level of measurement for financial attitude. In addition, socio-economic factors, such as age, income, education, type of healthcare profession and marital status that affect retirement planning were examined quantitatively using nominal and ordinal scales

of measurement, as applied in the work of Hershey *et al.* (2010) and Clark and Lusardi (2011).

The quantitative approach was also employed in establishing the mediation of financial attitude in the relationship between socio-economic factors and retirement planning. In the same vein, the mediation of financial attitude in the relationship between institutional structures and retirement planning was examined. These hypotheses were tested to draw conclusions from statistical analysis and to provide support or otherwise to the underlying research theories. This was also justified by studies from Adami and Gough (2008), Fernandez-Lopez, *et al.* (2010), and Clark and Lusardi (2011) where similar relationships were analysed quantitatively.

To comprehensively analyse how institutional structures affect retirement planning, both quantitative and qualitative data were applied in addressing the research problem. Zohrabi (2013) notes that, applying the mixed methods can improve the reliability and explanation of data. Creswell (2009) provides that the mixed method uses three strategies, namely, sequential, concurrent and transformative methods. In sequential design, the research commences with one approach and follows up with another approach in order to have integrated knowledge. Neuman (2011) also notes that the transformative mixed method uses a theoretical framework to collect data using either sequential or concurrent method. Ponce and Pagan-Maldonado (2015) also assert that the concurrent mixed method, allows qualitative and quantitative data to be collected at the same time while integrating them in interpreting the results.

On the basis of the three strategies, the concurrent method was used to study institutional structures and retirement planning by combining both quantitative and qualitative data and integrating them to allow for a comprehensive analysis. The dimensions of institutional structures such as adequacy, sustainability, transparency and efficiency were skewed towards the quantitative approach where data were collected from healthcare workers, but qualitative strategies which explored data from participants in the pension industry were concurrently applied to ascertain greater insight into the problem. This implies that both statistical and non-statistical analytical techniques were used in the study at the same time, as employed in similar studies by Han and Sherraden (2007), Curley *et al.* (2009), and Hayley (2019). Therefore, using the mixed method approach with the appropriate study design helps to contribute to knowledge in the field of retirement planning.

Study Design

Bryman (2008) notes that the conduct of any research requires the use of a study design, whether the research is quantitative, qualitative or mixed method. In the same vein, Blaikie (2010) explains that the use of study design forms the basis of finding solutions to the research objective. Saunders, Lewis and Thornhill (2011) describe study design as a strategy of inquiry which provides the plan or outline in undertaking research while also explaining how research questions are answered. In this study, the cross-sectional and exploratory designs were used to unearth the issues surrounding life course and retirement planning. While cross-sectional design was widely used in the quantitative research, exploratory design was

employed in the qualitative study. Using these two study designs helped to contribute to knowledge in the field of retirement planning by gaining in-depth information.

McKenzie and Knipe (2006) describe cross-sectional design as a study design which enables collection of data from different individuals at a single point in time. Saunders *et al.* (2011) also note that the use of cross-sectional design allows researchers to collect data from a large pool of participants. Therefore, the use of the cross-sectional design allowed me to collect data from a large pool of healthcare workers. Related studies by Hira *et al.* (2009), Hershey *et al.* (2010), Clark and Lusardi (2011) and Wong *et al.* (2019) have all adopted same designs.

The cross-sectional design also helps to describe relationships as noted by Bryman (2012). Therefore, the cross-sectional design helped to examine retirement planning of healthcare workers, and established relationships between key socio-economic characteristics such as age, income, education, type of healthcare profession and marital status and retirement planning. It was also used in describing the influence of social and economic factors on retirement planning, which has been used in related retirement studies by Fernandez-Lopez *et al.* (2010), Clark and Lusardi (2011) and Jais and Asokumar (2019). The cross-sectional design was extended to studying the effect of financial attitude on retirement planning as well as institutional structures influencing retirement planning as same was applied in previous works by Hershey *et al.* (2007), Han and Sherraden (2007), Hershey *et al.* (2010), Okumura and Usui (2014), Boyetey (2019) and Wong *et al.* (2019).

On the other hand, the exploratory study design was employed in studying aspect of institutional structures that affect retirement planning, by exploring information from experts and pension industry professionals. Sarantakos (2005) and Saunders *et al.* (2011) note that the exploratory design is used when there is not enough information available about a subject. Therefore, to further investigate and provide a more comprehensive approach by seeking in-depth information from pension fund managers, pension fund administrators, and the pension regulator, exploratory study design was used in this research.

Study Institutions

The study institutions for the research were five public hospitals, namely, Korle Bu Teaching Hospital, 37 Military Hospital, Greater Accra Regional Hospital (Ridge Hospital), University of Ghana Medical Centre, and Police Hospital. Brief descriptions of the study institutions show that the Korle-Bu Teaching Hospital is the only public tertiary teaching hospital affiliated to the University of Ghana Medical School and third largest hospital in Africa with a bed capacity of 2,000 with 17 clinical and diagnostic departments (Amponsah-Ansah, Maloreh-Nyamekye, Otchere, Boateng, & Antwi-Bosiako, 2020). The hospital has an average daily attendance of 1,500 patients and about 250 admissions.

The next hospital, which is the 37 Military Hospital, is the largest military hospital in the country. It was established in 1941 and has about 700 bed capacity, with 17 departments and other health units. It was named 37 because, it was the 37th military hospital built in the British colony of West Africa (Ministry of Health,

2018). The third public hospital used in this study is the Greater Accra Regional Hospital, which was established in 1928 as a hospital for the European expatriates. The hospital has since been redeveloped into a 420-bed capacity providing a number of specialist services.

The University of Ghana Medical Centre is also a 1000 bed medical centre on the campus of the University of Ghana, tasked with conducting medical research and providing quality healthcare services (Ministry of Health, 2019). Lastly, the Police Hospital was established in 1976 as a health institution tasked with providing health care to members of the Ghana Police Service and their families. This hospital has now grown to provide services to the general public. In all of these public hospitals, the Ministry of Health further reports that nurses dominate in terms of numbers in all the various categories of healthcare professionals.

The five public hospitals each has separate human resource and administration department. The various departments have a welfare unit tasked with the goal of ensuring that healthcare workers receive the requisite financial support when needed. As a result of this, a fund has been created by these welfare units, which allows each healthcare worker to make annual contribution into it. However, these funds are not meant for the purposes of retirement, but can be used as a platform or vehicle to support retirement planning of the healthcare workers. All of these public hospitals are located within Accra in the Greater Accra Region of Ghana.

The public hospitals in Accra were selected for the study because, the Ministry of Health (2019) reports that, they have the largest numbers of healthcare

workers within the region and the country at large where they offer wide range of health services to individuals across the country. Most health referral cases across the country are centered within these hospitals, indicating the important roles of their healthcare workers (Asiedu, 2021). The services of the healthcare workers are therefore critical in improving access and quality healthcare for the national population and achieving the Sustainable Development Goal 3.

Additionally, Ansah (2021) asserts that shortages in healthcare workers may be catastrophic to citizens across the country and may contribute to widening the gap of meeting the patient-healthcare worker ratio, which has repercussions for human resource and national development. The General Secretary of the Ghana Medical Association has also reiterated that there are increasing levels of poverty among healthcare workers during retirement (Nartey, 2022). This therefore makes the study of retirement planning among healthcare workers in the health sector important in Ghana.

Population

Creswell (2014) notes that population is the number of persons that the researcher samples from or draws conclusion based on the findings. The target population of the study comprised healthcare workers in the five public hospitals and pension service providers in Accra in the Greater Accra Region of Ghana. The target population comprised medical doctors, pharmacists, registered nurses and midwives, physician assistants, and laboratory technicians whose numbers are aggregated to be 11,843 (Ministry of Health, 2020) and a total of 63 pension

industry service providers (NPRA, 2021). The population in all five public hospitals fall under the Ministry of Health and are paid based on similar ranks and structures. The population breakdown for the quantitative and qualitative study is provided in Table 4.

Table 4: Population Breakdown

Healthcare workers	Total Number
Registered Nurses/Midwives	7,952
Medical Officers	1,976
Pharmacists/Lab. Officers	1,524
Physician Assistants	391
Total	11,843
Pension Industry Players	
Pension Fund Managers	39
Pension Fund Administrators	23
Pension Fund Regulator	1
Total	63

Source: Ministry of Health (2020); HSOPS (2020); NPRA (2021)

The qualitative aspect of the population comprised pension providers such as registered pension fund managers, registered pension fund administrators, and the pension regulator.

Sampling Procedure

Creswell and Plano-Clark (2007) explain sampling procedure as an approach used by a researcher to divide a study population into relevant groups from which samples are drawn from each subgroup. In this study, I used Yamane's (1967) method of estimating a desired sample size from a population.

$$n_{ss} = N_{TP}/[1+N_{TP}(\alpha)^2]$$

In the formula, '*n'* represents the desired sample size, 'N' is the total population from which the sample is drawn and 'α' is the acceptable sampling error. The 'α' level is assumed to be 5 percent level of significance. Therefore, given the known population, the sample size was determined based on the application of Yamane's (1967) formula. The sample size was computed as follows:

$$n_{ss} = 11{,}843/\ [1+11{,}843(0.05)^2]$$

$$n_{ss} = 387$$

However, Naing, Winn and Rusli (2006) provide that the use of the formula relies on the assumption of data being collected using a simple random sampling and with a response rate of 100 percent. However, this is rarely true and one way of making the statistical inference accurate, according to Kish (1965) is to make an adjustment using the design effect. The design effect is used to increase the sample size which allows one to correct for sampling errors and variations in the formula that relied on simple random sampling in estimating the sample size. Additionally, the sample size is increased because, larger sample sizes provide stronger and more reliable results due to the smaller margins of error and lower standards of deviation (Zohrabi, 2013).

In order to increase the sample size, Shackman (2001) notes that, a design effect value between 1 and 3 is required to be chosen. In this study, a design effect of two was selected to increase the sample while also allowing a 10 percent non-response. Therefore, the total sample size for the study was computed based on the formula by Kish (1965) for increasing sample size:

(Sample size*design effect) + (non-response rate*[sample size*design effect])

(387*2) + (0.1*[387*2]) = 851

It must be noted that, based on the formula, the design effect and non-response rate are the two main variables or elements that has influenced the sample size to increase from 387 to 851. After the distribution of the sample size, that of physician assistants was 28 which was less than the required 30 according to the central limit theorem (Kock, 2019). To explain, as per the central limit theorem, sample sizes below 30 are not adequate enough to run statistical tests. Therefore, when a sample size is below 30, it ought to be increased to cater for non-responses and sampling errors. Hence, I applied the design effect in order to scientifically increase the sample size of the subgroup, and to also cater for sampling errors and lower response rate.

Based on the requirements from Kish (1965) and Shackman (2001), a design effect of two and a 10 percent response was therefore implemented to increase the sample size of physician assistants and the final sample size for the subgroup was computed as (28*2) + (0.1*[28*2]) = 62. This therefore increased the sample size from 28 to 62. Hence, the final sample size was 885 (Table 5).

Table 5: Sample Size Distribution

Healthcare workers	Total Number	Sample size
Registered Nurses/Midwives	7,952	571
Medical Officers	1,976	142
Pharmacists/Lab. Officers	1,524	110
Physician Assistants	391	62
Total	11,843	885

Source: Ministry of Health (2020); Health Sector Occupational Pension Sch. (2020)

The next stage after the determination of the sample size was to apply the selection strategy for respondents. For the quantitative study, the probability sampling method was used to select healthcare workers. Keleman and Rumens (2008) opine that the use of probability sampling method ensures that every member of a given population in a study has an equal opportunity of being selected. The stratified and simple random sampling techniques of the probability method were employed in selecting healthcare workers.

The stratified sampling technique was employed in the grouping of healthcare workers into four subgroups. Brannen (2005) and Neuman (2011) note that stratified sampling technique is a probabilistic technique where population can be partitioned into subpopulations in a survey. Creswell (2013) also observes that when subpopulations within an overall population vary, it is advantageous to sample each subpopulation independently. The four subgroups were registered nurses or midwives, medical doctors, pharmacists and laboratory officers and physician assistants. The sample size was proportionately distributed (Table 6)

among the five hospitals. This was done to have proportional representations from each of the five hospitals based on their population sizes.

Table 6: Sample Size Partition

Healthcare workers	Hospital	Population	Total Number (n)
Registered Nurses/Midwives	Korle-Bu	2,665	191
	Ridge	1,845	133
	UGMC	1,178	85
	37 M.H	1,093	78
	Police Hos.	1,171	84
Total		7,952	571
Medical Officers	Korle-Bu	544	39
	Ridge	312	22
	UGMC	497	36
	37 M.H	307	22
	Police Hos.	316	23
Total		1,976	142
Pharmacists/Lab. Officers	Korle-Bu	562	42
	Ridge	254	18
	UGMC	398	28
	37 M.H	208	15
	Police Hos.	102	7
Total		1,524	110
Physician Assistants	Korle-Bu	103	16
	Ridge	89	14
	UGMC	74	13
	37 M.H	56	8
	Police Hos.	69	11
Total		391	62
Total		11,843	885

Source: Ministry of Health (2020); Health Sector Occupational Pension Scheme (2020)

After the stratification, the simple random technique was applied to select the required sample sizes from each of the hospitals. Creswell (2013) notes that in a simple random sampling technique, there is randomness in selection. Given the sampling units, the lottery method was used to select respondents separately from each subgroup in all the five hospitals. This was done by assigning numbers to the roll of employees, separately for each subgroup and then drawing from it randomly until all the numbers of the sample size unit was exhausted. The stratified and simple random sampling techniques were used because of their application in related studies by Hershey *et al.'s* (2010), and Okumura and Usui's (2014).

The purposive sampling technique was employed in the qualitative study. First, five key informants comprising the Director of Programmes, Policy and Planning at the National Pensions Regulatory Authority (NPRA), and two representatives each from pension fund managers, and pension fund administrators were selected. The purposive sampling technique was used in selecting these key informants due to their in-depth knowledge in the operations and management of personal pension schemes. These responses were needed to augment the quantitative findings while also providing more insights into retirement planning of healthcare workers. The purposive sampling technique enabled the study to complete the qualitative aspects of the data collection procedure.

Data Collection

The data collection approach was discussed on each research objective based on data needs or issues, types of data, source of data, method of collecting data and the instrument employed in collecting data. I collected data through quantitative primary sources on retirement planning over the life course and financial attitude, to examine the first and second research objectives respectively. The survey method was employed in discussing issues like whether healthcare workers have individual retirement accounts, frequency of making monthly contributions, withdrawals and sources of retirement information. Other issues on financial knowledge, financial risk tolerance and attitudes towards retirement were addressed.

The mediating role of financial attitude in the relationship between socio-economic factors and retirement planning, using the survey method was analysed. Quantitative primary data were collected on age, income, sex, educational, type of healthcare profession and marital status. Similarly, data on social influence from friends, coworkers, families, and spouses were captured, while economic factors such as the quality of pension schemes and standard of living were addressed.

Investigations were also made into the mediating role of financial attitude in the relationship between institutional structures and retirement planning by collecting quantitative data from primary sources. Using the survey method, flexibility in guidelines for pension contribution payment, receipt of prompt feedback, adequate rate of return on pension investment, safety and security of pension contributions, and receipt of periodic information on pension contributions

were discussed. These issues were captured under efficiency, adequacy, sustainability and transparency of pension schemes. In addressing the four research objectives, questionnaires were administered to obtain data from healthcare professionals, while field assistants interviewed those who were busy.

Furthermore, qualitative primary data and secondary data were integrated into answering the fourth research question. An interview guide was used to collect data from key informants in the pension industry, such as pension regulators, pension fund managers and pension fund administrators. Additionally, secondary data on investment reports and guidelines were retrieved from the website of the National Pensions Regulatory Authority. The investment guidelines were found in policy documents named as pension scheme rules which focused on actual investment classes or assets and procedures for investing pension funds. Comparisons were made in the investment reports to the scheme rules to ascertain whether the practices of pension fund managers and administrators were in line with the scheme rules.

Instrument Design

The instruments employed in collecting primary data were questionnaire and interview guide. While questionnaire was used in collecting quantitative data, interview guide was employed in gathering qualitative data. Questionnaire was administered to healthcare workers who had less busy schedules and preferred to answer the items themselves, while trained field assistants interviewed respondents who had busy schedules. Field assistants were used in order to increase the rate of

responses as suggested by Blaikie (2010). On the other hand, interview guide was used to collect qualitative data from key informants from the pension industry.

The questionnaire had five sections. The first section provided items on socio-economic characteristics of healthcare workers on age and net monthly income and these items were measured on interval/ratio scale. On the other hand, the nominal scale of measurement was used in collecting respondents' data on sex, marital status, type of healthcare profession a worker belonged to, whereas education was measured on the ordinal level. Although, marital status generally has categories such as married, divorced, widowed or cohabitation, the variable was put into only two categories in this study, thus either 'married' or 'single.' Items on sex were grouped into 'male' or 'female.' Education was measured on three levels, 'diploma,' 'degree' and 'postgraduate.' The type of healthcare professions comprised 'registered nurses/midwives,' 'medical doctors/ practitioners,' 'pharmacists/laboratory technicians' and 'physician assistants.'

In the second section, items examining retirement planning of healthcare workers over the life course were provided. For instance, retirement planning, the dependent variable was measured nominally with a 'Yes,' or 'No' response for, *'do you have a personal or individual retirement account?'*. Similar measure of retirement planning was used in the works of Adami and Gough (2008) and Hira *et al.* (2009). Other items that helped in discussing retirement planning were the frequency of maximising contributions in retirement account, and frequency of withdrawals. Jacobs-Lawson and Hershey (2005) and Zeka and Matchaba-Hove

(2016) employed similar items to examine retirement planning among workers in Netherlands, United States of America and South Africa.

The third section on the questionnaire provided items that analysed financial attitude and retirement planning of healthcare workers. Financial attitude dimensions comprised financial knowledge, financial risk tolerance and attitudes towards retirement. First, 10 items each were used to measure financial knowledge and financial risk tolerance, and they were on a scale of seven, from 1 being 'least agreement' to 7 'strong agreement.' Some of the items that were used to measure financial knowledge comprised, individuals' knowledge on how interest rate is computed, how private investment works and reviewing and comparing investment options. On the other hand, financial risk level measures included willingness to risk financial losses in maximising returns, preference for higher returns regardless of the risk in investment, and willingness to engage in risky investment in ensuring financial stability.

Jacobs-Lawson and Hershey (2005) employed similar items to measure financial knowledge and financial risk tolerance. Additionally, future time perspective and retirement goal clarity were used as measures of attitude toward retirement. I used eight items measured on a scale of seven where 1 was 'least agreement' to 7 'strong agreement.' The items were adopted from Jacobs-Lawson and Hershey (2005), Stawski *et al.* (2007), and Hershey *et al.* (2010).

The fourth section on the questionnaire presented items that examined socio-economic factors influencing retirement planning. The social and economic factors were measured on a 5-point scale, with 1 showing 'not at all' to 5 being

'very large extent.' Social factors were measured by influence from coworkers, spouses or family members and life experiences of older retirees in planning for retirement. The measures of economic factors also included confidence in the economy, retirement income sufficiency and quality of pension schemes. Similar items on social and economic factors that affect retirement planning was used in the work of Hira *et al.* (2009), Hershey *et al.* (2010) and Zeka and Matchaba-Hove (2016).

The last section of the questionnaire provided items that investigated the effect of institutional structures on retirement planning. Institutional structures were determined by efficiency, adequacy, sustainability and transparency. All the items of institutional structures were measured on a 5-point scale, with 1 being 'least agreement' to 5 being 'strong agreement.' Efficiency was measured by flexibility for pension contribution payment and receipt of prompt feedback when payment is made. Adequacy was also measured by adequate rate of return, and design of favourable pension products. Sustainability was measured by long-term operational impact of pension companies on pension contribution and security of pension contribution. Lastly, some items that measured transparency was receipt of periodic information on audit report, contributions and returns. These items used were similar to those of Han and Sherraden (2007) and Okumura and Usui (2014).

With respect to the qualitative aspect, I used three different interview guides, which had different issues for each key informant in the pension industry. The first interview guide for pension fund managers identified issues on how pension funds were managed to ensure sustainability. These included the regulatory

structures that either inhibit and support the security of pension funds. The second interview guide for pension administrators identified issues on how pension funds were administered in ensuring efficiency and adequacy. It included how contributors get information on their contributions and structures put in place to encourage pension contributions.

The third interview guide was for the pension regulator. It identified issues on how all pension industry players administered pension funds of contributors in ensuring adequacy, sustainability, efficiency and transparency. Items on the interview guide were designed to collect information on institutional structures of pension schemes.

Pre-testing and Validity of Instruments

Prior to collecting actual data, a pre-test of the questionnaire, which was also used as an interview schedule, was conducted within one week from 21st March, 2022 to 25th March, 2022. This was because Blaikie (2010) opines that, by pretesting the items, a researcher is able to evaluate the validity and reliability of the survey instrument prior to actual field work. The relevance of pre-testing, as noted by Creswell (2014), is to determine the strengths and weaknesses of the survey concerning wording, format and order. With these underlying advantages, the pre-test was done by administering the questionnaire/interview schedule to 35 healthcare workers at Amanfrom Polyclinic, in the Ga South Municipal Assembly of the Greater Accra Region of Ghana.

The healthcare workers at Amanfrom Polyclinic had similar characteristics to the study units and were chosen for the pre-test in order to avoid survey errors which were likely to occur if the actual research respondents got familiar with the survey items before the actual survey commenced. In order to test for internal consistency of the data, Cronbach alpha was employed to test all items analysing retirement planning, socio-economic factors, financial attitudes, and institutional structures. Ofori and Dampson (2011) show that a Cronbach alpha value between 0.70 to 1 is acceptable and demonstrates the internal consistency of the data. All items on Table 7, tested for internal consistency, had Cronbach alpha above 0.7.

On the other hand, in the qualitative study, I employed respondent validation and other methodological strategies in ensuring the trustworthiness and credibility of the study. For instance, in using respondent validation, an email was sent to the research participants to comment on the interview guide and the items on it, to ascertain whether the concepts or the interview questions reflected the phenomenon being investigated. Additionally, other expert researchers such as my supervisor went through the interview items to ensure the concepts mirrored what was being researched.

Table 7: Results for Reliability Test

Variables	Number of Items	Cronbach Alpha
Planning for retirement	9	0.880
Sources of Retirement Information	9	0.895
Social Factors	7	0.823
Economic Factors	8	0.772
Financial Attitudes		
- Future Time Perspective	8	0.742
- Retirement Goal Clarity	7	0.731
- Financial Knowledge	10	0.948
- Financial Risk Tolerance	10	0.809
Institutional Structures		
- Adequacy	5	0.858
- Transparency	6	0.942
- Sustainability	5	0.754
- Efficiency	10	0.899

Source: Field survey (2022)

Ethical Considerations

According to Babbie (2007), social research brings together the researcher and his or her subjects into direct or indirect contact. Therefore, it was important to protect healthcare workers and the study institutions by adhering to ethical practices. First, the right to informed consent was adhered to by me as well as the

field assistants. Respondents were informed about the nature and basis of the study after which they decided whether or not to partake in the study. They were also informed of their right to withdraw at any given time of the process, and that the study had no direct or indirect association with implementing actors. An informed consent form which stated explicitly the purpose of the study was given to respondents to sign.

Respondents were also assured of anonymity, non-disclosure and confidentiality of their responses. For instance, they were not required to indicate their names and identities on the questionnaire. Efforts were also made to ensure that they were not exposed to any form of psychological harm by avoiding emotional questions. To achieve this, they were briefed on the study's purpose, and the kind of questions they were to answer. A copy of the instrument was also sent to the University of Cape Coast Institutional Review Board for approval. Subsequently, an introductory letter for the fieldwork was collected from the School for Development Studies, University of Cape Coast. This was sent to the Human Resource Unit of the various institutions to allow me undertake the study.

Actual Field Work

Five field assistants were trained at available lecture halls (Lecture Theatre 18 and 21) in the University of Cape Coast for 5-days, from 7th March 2022 to 12th March 2022 prior to commencing the data collection exercise. To ensure accurate data collection, only individuals with university degrees in the social sciences were considered during the process. The field assistants were taken through each of the

items on the questionnaire by the researcher who also explained the importance of the items to them. Additionally, it was explained to them that the questionnaire could be used as an interview schedule, to assist those who had busy schedules in answering the instrument. The essence of the training was to keep them informed and abreast with the kind of data required and to build their skill and familiarise them with the research ethical responsibilities.

The actual field work commenced after the completion of the pretesting and this was done between the period 25th May 2022 to 24th August 2022, excluding weekends and holidays. Prior to collecting data, an introductory letter was submitted to the offices of the health administrators of each of the facilities for permission to be granted. Each of the field assistants were introduced to the health administrators by the researcher and when permission was granted, data collection commenced. Data collection occurred at different periods in all the five health facilities. Field assistants moved from one health facility to the other after they had finished a health facility. Averagely, field assistants spent fifteen days at each health facility and each instrument was completed in approximately fifty minutes. Data retrieved from field assistants were scrutinised daily to minimise mistakes and were identified with serial numbers to enable me trace it to each field assistant.

After meeting the threshold of the sample sizes for physician assistants and pharmacists and laboratory technicians, there was more room to extend their numbers or sample sizes. According to Caufield (2022), increasing the sample size can be done to reduce the prevalence of sampling errors. As a result of this, responses of pharmacists and laboratory technicians recorded a five percent

increase whereas that of physician assistants also saw an 85 percent increase more than the sample size. Overall, there was a 74.5 percent response rate.

I commenced the second phase of data collection by conducting five interviews personally with key informants (pensions regulator, two pension fund managers and two pension fund administrators) from the pension industry between 6th June 2022 to 10th June 2022, with each interview conducted on different days. The qualitative interviews were conducted alongside the questionnaire administration. Prior to undertaking the interview sessions, introductory letters were submitted to the offices of each of the key informants.

For the regulator, after the letter was submitted, the office of the Chief Executive Officer of the National Pensions Regulatory Authority, assigned the Director of Programmes to me for the interview session. An appointment was booked with him, but due to his busy schedules, the interview was conducted via mobile phone which lasted 31 minutes. Apart from one of the interviews conducted at the office of the pension fund manager, all the others were via mobile phone and each lasted about 20 minutes.

Data Processing and Analysis

The questionnaires, 660 of them were retrieved, and studied for consistency and completeness. The next stage of the data entry was the coding process. A coding book was prepared and each of the completed questionnaire/interview schedule was given a code number to ensure distinctiveness. The reason for numbering each instrument was to be able to link the data entered into the computer

to the actual questionnaire. Afterwards, all items on the questionnaires were keyed into Statistical Product and Services Solution (IBM SPSS) version 25. Data were managed by testing for validity and consistency using Cronbach alpha.

Descriptive statistical techniques such as frequencies, percentages, cross tabulations (Chi-square analysis) were used in analysing data to answer the first research objective which aimed at examining retirement planning of healthcare workers. The chi-square test was used to test the significant associations between the type of healthcare profession and the thought of having an individual retirement account. Additionally, means and standard deviation were used in analysing the sources of retirement information and how healthcare workers planned their retirement over the life course.

The second research objective was focused on the effect of financial attitude on retirement planning. Data were analysed using descriptive statistics, such as means and standard deviation and logistic regression. The use of descriptive statistics and logistic regression was supported by the empirical work of Boyetey (2019) who employed similar analytical technique. Descriptive analysis was used in measuring the score of respondents based on their level of agreements with statements about the dimensions of financial knowledge, financial risk tolerance and attitude towards retirement. In determining financial attitude dimensions, the average index score of each respondent was computed. These were done based on the findings of Heenkenda (2017) where a higher score means higher level of financial attitude.

The indexes of financial attitude dimensions were used as predictors in logistic regression to predict respondents' probability of either planning for retirement or otherwise. The analysis was relevant in determining which financial attitude dimension influenced retirement planning of healthcare workers. The analysis was also relevant in determining the relative importance of each predictor variable in the model.

The dependent variable, which is retirement planning, was dichotomised based on respondents' status of either having a personal retirement account or not. Respondents with personal retirement account were coded as '1' whereas those without personal retirement account were coded as '0.' Since the dependent variable is a binary variable, Malroutu and Xio (1995) provide an appropriate logistic model to be fitted. The logistic model is specified based on the cumulative probability function as follows:

$$ln\left(\frac{p}{1}-p\right)=a+\sum_{i}^{n}\beta iFKRi+\sum_{m}^{n}\delta mFRTm+\sum_{c}^{n}\gamma cATRc+ei$$

From the model, FKR is the set of items on financial knowledge for retirement, FRT, represent items on Financial Risk Tolerance, and ATR, represent Attitude towards Retirement. The outcomes from logistic regression produced z-statistics, goodness of fit statistic and likelihood ratio (LR). The z-statistics were used to measure the level of significance for each of the estimated coefficients. The goodness of fit statistic generated the Pseudo R-squared and the likelihood ratio determined the joint significance of the independent variables in the model. The likelihood ratio followed the chi-square distribution with degrees of freedom equal to the number of independent variables in the model.

With respect to the third research objective, I examined the mediating role of financial attitude in the relationship between socio-economic factors and retirement planning. Socio-economic factors were divided into two parts, first, the socio-economic characteristics of healthcare workers and second, social and economic influence on retirement planning. The socio-economic characteristics of healthcare workers comprised age, sex, net monthly income, marital status, education and type of healthcare profession. Frequencies, percentages, and cross tabulation were used to present descriptive data. Chi-square tests were used to establish significant associations between age, sex, net monthly income, marital status, education and type of healthcare profession and those who have IRAs. Before performing the Chi-square tests, data on net monthly income and age, which were collected on continuous level were disaggregated into categories.

The second part of socio-economic factors dealt specifically with how social and economic forces affected retirement planning of healthcare workers. These were analysed using descriptive statistics such as means and standard deviation and the inferential statistical technique of Structural Equation Modelling (SEM). AMOS software, which is an add-on of the IBM SPSS version 25 was used to perform the SEM analysis. According to Hair *et al.* (2010), structural equation modelling can be done where the dependent variable is binary. Prior to establishing the relationships among the various variables, diagnostic tests such as convergent validity, discriminant validity and reliability were evaluated.

The Average Variance Extracted (AVE) was used to measure the convergent validity. The convergent validity measured how close the variables

were related to each other. On the other hand, Discriminant Validity (DV) provided evidence that constructs were not highly related to each other. Tests on the factor loadings were determined, and according to Voorhees, Brady, Calantone and Ramirez (2015), items with low factor loadings of less than 0.65 are removed and those more than 0.65 are retained. Hair *et al.* (2017) also suggest that DV values of more than 0.7 and AVE values of more than 0.5 are acceptable.

The Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) values were computed to ensure that the model was fit for the analysis. All tests were conducted at a five percent level of significance and Kock (2019) explains that for model fit, the p-value must be above 0.05, but where a lower p-value is recorded, further tests such as GFI, AGFI, TLI, and CFI are required to determine the model fit. For example, for a model fit, the GFI, AGFI, TLI, and CFI must be more than 0.9 and the RMSEA must fall between 0 and 0.1. When there was no problem detected in the measurement model, SEM was performed to assess all the relevant path coefficients using the AMOS software.

For the last research objective, I focused on the mediating role of financial attitude in the relationship between institutional structures and retirement planning. The analyses of data were in two distinct parts, quantitative and qualitative. Quantitatively, descriptive statistical measures such as mean and standard deviation were used to present adequacy, efficiency, transparency and sustainability. Afterwards, the AMOS software was employed in performing structural equation modelling, which was used to establish the mediating role of financial attitude in

the relationship between institutional structures and retirement planning. Data were also evaluated for convergent validity, discriminant validity and reliability and same tests for conducting structural equation modelling were done as earlier demonstrated on the socio-economic factors and retirement planning.

After the quantitative analyses were done, my attention was turned to the qualitative part of the study. According to Davies and Dodd (2002), analysing qualitative data encompasses organising data, searching for patterns and discovering what is important. In this study, the thematic analysis was performed by identifying patterns and themes in the data. Clarke and Braun (2013) note that, thematic analysis is mostly applied to a set of texts, such as transcripts or interviews where data are closely examined to identify common themes that come up repeatedly. In performing the qualitative analysis, I transcribed all the audio interview recordings from key informants into texts and this was done to make the data easier to analyse and allow me become more conversant or familiar with the data.

Subsequently, sections of the texts of every interview with similar phrases and sentences was highlighted. According to Caufield (2022), these are done to have a summarised overview of the main points and common meanings that recur throughout the data. Broader themes of adequacy, efficiency, sustainability, and transparency were then created and patterns among them grouped. The themes were reviewed to combine the more useful and accurate texts while discarding those which were not needed. To support my arguments in the write-up, quotations from key informants were used in the analysis. The thematic analysis was only done in

the fourth research objective where there was integration of the views of pension industry players with healthcare workers on how institutional structures influenced retirement planning. All the processes of analysing qualitative data were done manually without any assistance of computer software.

Chapter Summary

The mixed method research approach but heavily tilted towards quantitative approach was employed to examine the influence of life course on retirement planning of healthcare workers. The cross-sectional survey and exploratory designs were used for the study and the unit of analysis comprised healthcare workers in the five selected public hospitals within Accra Metropolis. The stratified and simple random sampling techniques were used to sample 885 workers, but 660 responses were successfully retrieved. The purposive sampling technique was also used in selecting key informants in the pension industry. Descriptive statistics, Chi-square test, logistic regression and structural equation modelling were the inferential quantitative techniques used in analysing quantitative data. Table 8 contains a summary of the methodology.

Table 8: Summary of Methodology

Objective	Type of Data	Variables	Measurement Scale	Source of data	Population	Data Collection Method	Instrument	Analysis
Analysing retirement Planning	Quantitative	Retirement planning	Nominal (Yes/No)	Primary	Healthcare Workers	Questionnaire administration	Questionnaire / Interview schedule	Cross-tabulation, Means, Frequencies, Chi-Square
Social and economic Factors influencing retirement planning	Quantitative	Income; Age Number of dependents; Education; Sex; Marital status;	Nominal /Ordinal/Interval	Primary	Healthcare Workers	Questionnaire administration	Questionnaire / Interview schedule	Descriptive Statistics, Chi-square,
	Quantitative /Qualitative	Social and Economic Factors	Interval	Primary	Healthcare Workers	Questionnaire administration /Interviewing	Questionnaire /Interview schedule	Descriptive Statistics, Structural Equation Modelling

Table 8 Continued

Effect of financial attitude on retirement planning	Quantitative	Financial Knowledge; Financial risk tolerance; attitude towards retirement planning	Interval	Primary	Healthcare Workers	Questionnaire administration	Questionnaire /Interview schedule	Descriptive statistics/Logistic Regression
Institutional structures on retirement planning	Quantitative	Adequacy; Transparency, Efficiency, Sustainability	Interval	Primary	Healthcare Workers	Questionnaire administration	Questionnaire /Interview schedule	Descriptive statistics/Structural Equation Modelling
	Qualitative	Adequacy; Transparency, Efficiency, Sustainability	-	Primary, Secondary	Fund Managers, Administrators, & Regulator	Interviewing	Interview Guide	Themes

Source: Author's construct (2022)

CHAPTER FIVE

RETIREMENT PLANNING OF HEALTHCARE WORKERS

Introduction

This chapter addressed the first research objective, which examined retirement planning of healthcare workers in public hospitals in Accra. The essence of the first objective was to understand the retirement plans that healthcare workers have put in place towards the period of retirement. The discussions are preceded by an overview of socio-economic characteristics, which centered on the sex, age, marital status, education, net monthly income, and the type of profession.

The analysis of the issues on retirement planning was supported by the rational choice, life course and life cycle theories. Bicchieri (2003) maintains that planning for retirement is a personal decision made by an individual based on access to information, while considering possible limitations that may inhibit the individual. Therefore, the quality of life of a healthcare worker in retirement is dependent on the savings he or she makes during the working life. Some of the discussions that projects healthcare workers' retirement planning comprised the thought of having an individual retirement account and whether healthcare workers already have personal retirement account.

The percentage of net monthly income saved for their retirement, and frequency of increase in the amount saved were also discussed. Data from the survey were analysed from 660 healthcare workers using descriptive statistics such as frequencies, and means. However, there were some incomplete responses on age, and net monthly income.

Socio-Economic Characteristics of Healthcare Workers

The socio-economic characteristics were divided into two parts. The first part discussed primary data collected on nominal and ordinal variables. This comprised data on sex, marital status, education and type of profession. The second part presented data collected on continuous or interval variables and this included age, and income. To start with, Lusardi *et al.* (2018) argue that the sex of an individual influences the decision to plan for retirement. For this purpose, data on the sex of healthcare workers was gathered and the majority (70.9%) of healthcare workers in the survey were females. Additionally, as contained in Table 9, more of the sampled healthcare workers were registered midwives and nurses, while the least (17.2%) were pharmacists and laboratory technicians, consistent with the Ministry of Health's (2020) report that females and nurses and midwives constitute the highest numbers among all the groups of healthcare workers.

Table 9: Type of Healthcare Professionals

Type of Healthcare Professional	Frequency	Percent
Registered Nurses/Midwives	308	46.6
Medical Practitioners	122	18.5
Pharmacist/Laboratory Technicians	114	17.3
Physician Assistants	116	17.6
Total	660	100.0

Source: Field Survey (2022)

Mohd *et al.* (2015) also argue that an individual's marital status influences decisions on retirement planning. Data on marital status of respondents were collected and the descriptive result showed that, the married constituted 43.6 percent, while single individuals in the survey constituted the majority. Fernandez-Lopez *et al.* (2010) argue that education is considered a relevant determinant of savings and that people with higher level of education are more likely to save for retirement. Consequently, Lusardi and Mitchell (2015) note that, the life cycle theory considers people who are more educated to earn high income, which lead them to save more and build wealth. As a result of this, data on educational level was collected. The findings from Table 10, showed that a fewer (15.8%) number of the respondents had postgraduate level of education, while more (43%) of them were degree holders, followed by diploma and HND holders (41.2%).

Table 10: Level of Education of Healthcare Workers

Level of Education	Frequency	Percent
Diploma/HND	272	41.2
Degree	284	43.0
Postgraduate	104	15.8
Total	660	100.0

Source: Field Survey (2022)

Having presented the first part of the socio-economic characteristics of healthcare workers, the subsequent presentation was devoted to age, and net monthly income (Table 11). This is because, the life cycle theory as observed by Njunge (2013) shows that individuals save less when they are young and earn lower

incomes, then save more at their industrious ages and thereafter savings fall when they are old or approaching retirement.

Table 11: Age and Net Monthly Income

Descriptive Statistics	Age (yrs)	Net Monthly Income (Gh¢)
Mean	30.8	2,461.06
S. D	6.37	1,241.5
Minimum	25	-
Maximum	59	6,000
N	584	372

Source: Field Survey (2022)

The results revealed that the youngest respondent was 25 years while the oldest was 59 years. Their mean age was 30.8 years (Skewness= 1.290; Median= 30.0yrs; S. D= 6.37yrs) compared to the national median age of 21.5yrs (Ghana Statistical Service, 2021). This implies that the workforces are older than the national age and as suggested by Mohd *et al.* (2015) and Lusardi *et al.'s* (2018), individuals within these age brackets are expected to plan for their retirement by accumulating wealth through savings for retirement. In a similar view enunciated by Bas (2009) through the life cycle theory, individuals during these ages would have paid off their student loans and other debts acquired in their early employment period, setting the stage for them to save for retirement.

Sablik (2016) avers through the life cycle theory that those who earn more, are able to accumulate more wealth to guarantee retirement income security. Therefore, the income of healthcare workers was ascertained. Although some of the

respondents failed to provide information on their net monthly income, data gathered showed that the mean net monthly income was GH¢2,461 (Skewness = 0.781; Median = 2,000; S. D= 1,241.5). This is about six times the monthly national minimum wage of GH¢405.9 (Ghana Statistical Service, 2021). The highest net monthly income was GH¢6,000. Based on the income, healthcare workers are expected to save for their retirement as Modigliani (2005) demonstrate that the level of income determines the savings that an individual can make for retirement.

Planning for Retirement

In examining the retirement plans of healthcare workers, it was important to first ascertain whether healthcare workers have ever thought of having an individual retirement account. The relevance of having an individual retirement account was considered by Dan (2004) as the first and most important step in guaranteeing improved standard of living in retirement. It is considered so because, individuals who think of retirement, build wealth through savings during their working life in order to exhaust the savings in retirement. In support of the argument, Lusardi *et al.* (2018) and Topa *et al.* (2018) also demonstrate that accumulating financial assets requires the individual to have thought about the period of retirement.

Out of 660 respondents, 75.1 percent have thought of having individual retirement accounts while 24.9 percent have not. This presupposes that many healthcare workers are expected to have personal savings account that will be used to fund retirement expenses since Topa *et al.* (2018) and Altschwager and Evans

(2019) support the view that those who have thought about retirement are able to accumulate wealth for the period of retirement. It also suggests that those workers who have not thought of having a retirement account are more likely to face difficulties during old age or when they retire, as argued by Lusardi *et al.* (2017). Additionally, this position supports the conceptual framework as the starting point, which provides that having a retirement plan commences with the thought of it and this is expected to run throughout the life course of an individual.

In order to ascertain the categories of healthcare professionals and their thought on retirement planning, a cross-tabulation (Table 12) is provided.

Table 12: Healthcare workers who have thought of having retirement accounts

	Healthcare Professionals									
Thoughts of having IRA	Nurse/ Midwives		Medical Prac.		Pharmacists/ Lab Tech.		Physician Assistants		Total	
	f	%	f	%	f	%	f	%	f	%
Yes	296	72.5	68	73.9	60	78.9	72	85.7	496	75.1
No	112	27.5	24	26.1	16	21.1	12	14.3	164	24.9
Total	408	100.0	92	100.0	76	100.0	84	100.0	660	100.0

Source: Field Survey (2022)

The association between the type of healthcare workers and those who have thought of having retirement account was not statistically significant (χ^2 = 7.161; d.f = 3; p-value = 0.104). This means that the thought of having a retirement plan was not associated with the type of healthcare profession a person belonged. It was also important to ascertain how many of these healthcare workers actually have

individual retirement accounts. According to the Organisation for Economic Cooperation and Development (2019), for an individual to accumulate financial assets, he or she needs not just to have thought of retirement planning, but must have personal or individual retirement account purposely for retirement.

Out of the 75.1 percent of those who have thought of having individual retirement accounts, 276 of them or 55.6 percent actually have individual retirement accounts. Generally, out of the total of 660 respondents, 41.8 percent have individual retirement account. This means that about 58.2 percent of them do not have IRAs, an indication of a low rate of retirement planning. This is likely to result in poverty during retirement as Maobe (2020) establishes that individuals who are concerned about retirement have not only thought about it, but also save for it. The above result diverges from the conceptual framework, that many respondents will be unable to accumulate wealth for retirement. As outlined by Modigliani (1966), people are rational beings and will save when their income exceeds consumption. It implies that respondents with no retirement accounts have higher consumption than their incomes, accounting for their inability to save for retirement.

The study also found out from respondents, the type of individual retirement account they operate, since incomes generated from these accounts are those that will be used to finance expenditure during retirement. Altschwager and Evans (2019) emphasise that planning for retirement requires an individual to make decisions to accumulate financial resources from different sources and Table 13 indicates the type of individual retirement accounts.

Table 13: Type of Individual Retirement Account

Type of IRA	Frequency	Percent
3rd Tier Account	96	34.8
Personal Pension	84	30.4
Savings account for retirement	64	23.2
Investment account for retirement	32	11.6
Total	276	100.0

Source: Field Survey (2022)

Evidence from Table 13 showed that more of the healthcare workers (34.8%) who have individual retirement accounts operated a third-tier pension scheme account followed by personal pension accounts holders. The least held individual retirement account was investment account (11.6%). The outcome of the survey result supports the assertions of Njunge (2013) who demonstrated that people plan their retirement by saving in pension schemes and related pension products so that by the time they reach retirement, the accumulated savings become the main source of income.

The data also provide an indication that the new three-tier pension scheme has offered opportunities for healthcare workers to have options in saving for retirement as almost about 65.2 percent of healthcare workers who have individual retirement accounts use either the third-tier or personal pension scheme. It also supports the claims by the National Pension Regulatory Authority (2021) that there are increasing number of individuals who contribute voluntarily in personal pension and third tier pension accounts.

The study also investigated the percentages of monthly income that healthcare workers invest in individual retirement accounts. The survey result revealed that the minimum amount contributed was 3 percent of their net monthly income while the maximum contribution amount was thirty percent. The mean net monthly percentage contribution was 13.1607 percent of respondents' income. These contributions are expected to cushion them to live a quality life during retirement as elaborated by Karina and Anne (2019) and the conceptual framework that over the life course, individuals are able to accumulate wealth during their working life.

The frequency of contributions made into individual retirement accounts was also ascertained. The essence was to understand how often respondents contributed into their respective individual retirement accounts since Lusardi *et al.* (2017) assert that the more a person saves, the better his or her life becomes during retirement. It is evident from Table 14 that more of the respondents contribute to their individual retirement account on monthly basis (45%) or annually (34.9%). These contributors are more likely to maximise their contributions, supporting the finding of Hira and, Rock and Loibl (2009) that individuals who invest early in life maximise their retirement contributions and accumulate more wealth.

Table 14: Frequency of Contributions into Individual Retirement Account

Frequency of Contributions	Frequency	Percent
Monthly	124	45.0
Annually	96	34.9
Quarterly	20	7.2
Anytime	20	7.2
Every week	12	4.3
Bi-weekly	4	1.4
Total	276	100.0

Source: Field Survey (2022)

It is also important to note that about 7.2 percent of respondents do not have specific time periods of contributing to their retirement account and that they make contributions anytime. Although the percentage of such respondents is low, it is an indication that these categories of workers do not have a fixed plan for contribution which defeats the purpose of saving for retirement. Though they have retirement accounts, they may not be able to accumulate adequate wealth, which may result in threatening welfare standards during retirement as showed by Lusardi *et al.* (2017) that, building wealth requires regular accumulation of financial assets.

In examining the retirement plans of healthcare workers, withdrawals on individual retirement accounts were studied. Jackson (2009) demonstrates that, withdrawals deplete the saving reserves or financial accumulation made by an individual over the life cycle. Therefore, in Sablik's (2016) view, savings for the purpose of retirement are not to be depleted since such withdrawals affect the

accumulation of wealth and is likely to lead to poverty during old age. Out of 276 healthcare workers who contribute to individual retirement accounts, 36 answered that they make withdrawals from their individual retirement accounts (Table 15). It implies that majority of healthcare workers with IRAs do not withdraw from it, which supports the assertion by Deaton (2005) that individuals who think longer term, build wealth for periods such as retirement and so they only exhaust their savings during retirement.

Table 15: Frequency of Withdrawal from Individual Retirement Account

Frequency of withdrawal	Frequency	Percent
When needed	16	44.5
Monthly	8	22.2
Annually	8	22.2
Semi-Annually	4	11.1
Total	36	100.0

Source: Field Survey (2022)

Evidence from the survey showed that 16 respondents make withdrawal from their individual retirement account when they need money. This indicates the flexibilities of such retirement accounts which allow account holders to have access to their funds anytime. Njunge (2013) notes that these flexibilities on withdrawal accounts are likely to erode contributions or wealth whose purpose is only to be exhausted in retirement. The withdrawals also do not help to achieve the goal of accumulating wealth over the life course, as depicted in the conceptual framework.

Additionally, eight healthcare workers respectively make withdrawals monthly and annually while four of the healthcare workers withdraw semi-annually.

Apart from the statutory retirement income that workers are expected to receive during retirement, knowing the sources of other incomes that individuals will receive in funding their retirement expenditure is an important part of retirement planning as demonstrated by Njunge (2013). As a result of this, the study analysed the sources of income that respondents expect to receive when they retire from active service, apart from the statutory retirement income sources consisting of Tier 1 and Tier 2.

Out of 660 respondents, 41.8 percent expect to receive income from their individual retirement accounts, followed by 23 percent who expect to receive income from businesses and 17 percent from private properties. The rest of the respondents did not know the sources of income to augment statutory pension payments, and the World Bank (2018) explains that this may be detrimental to achieving income security by healthcare workers in old age. These healthcare workers may not be able to meet certain unexpected expenditures in retirement and risk having threatening welfare standards.

To delve deeper in understanding healthcare workers' retirement plans, the study found out from respondents' their life course activities, which they have put in place apart from having a retirement savings account. The relevance was to have a holistic understanding of the various activities occurring over the life course of workers apart from their financial needs. These life course activities comprised their ability to meet precautionary needs, and healthcare needs. In measuring life

course activities of respondents, an index of individual score on each item was computed as displayed in Table 16. Similarly, a composite score was computed and a theoretical mean of 3.0 was the cut-off point to describe individuals as putting in place adequate preparations for retirement over the life course.

Table 16: Life Course Activities by Healthcare workers

Life Course Activities	Min	Max	Mean	S. D
I am aware of different retirement planning schemes	1	5	3.4667	1.3607
I expect to accumulate sufficient savings for retirement	1	5	3.7030	1.2906
I have made a conscious effort to save for retirement	1	5	3.6848	1.1650
I have put in place plans to retire at the statutory retirement age	1	5	3.0788	1.5266
I have made decisions to put in place plans to accumulate different financial assets	1	5	3.8242	1.1553
I have made decisions to accumulate specific amounts of resources at specific ages over my working life	1	5	3.5455	1.2340
I have put in place plans to guard against uncertainties in life	1	5	3.5576	1.2482
I have put in place plans of meeting my healthcare needs in retirement	1	5	3.8000	1.1460
I have put in place plans for meeting my precautionary needs in retirement	1	5	3.5515	1.2140
Overall Mean			3.5455	0.8477
n = 660				

Source: Field Survey (2022)

In assessing life course activities of healthcare workers, it was evident from the survey that more of the sampled healthcare workers (Mean= 3.5455; S. D= 0.8477) have made adequate plans for the period of retirement. It can be inferred that healthcare workers are doing well by putting in place the right structures for retirement. These are likely to have positive effect on their welfare standards during retirement as depicted in the conceptual framework, and explained by Curley *et al.* (2009), Lusardi and Mitchell (2015) and Zwaan *et al.* (2018). These authors revealed that to be able to engage in retirement planning, a person is required to put in the right measures over the life course by making conscious efforts to save, guarding against life uncertainties and making adequate plans for precautionary needs.

Data based on the four subsamples showed that pharmacists and laboratory technicians with a mean of 3.9569 (Median =4.000; Skewness = -0.726) and standard deviation of 0.96 have made adequate preparations over the life course to plan their retirement, compared to physician assistants whose mean score was 3.8615 (S. D= 0.8144; Median= 3.8182; Skewness= -0.054) and medical doctors (Mean = 3.1858; S. D= 0.6588), when engaging in life course activities towards their retirement.

Even though respondents seem to have plans for retirement over the life course, it does not appear to be linked to their statutory retirement age (Mean= 3.0788; S. D= 1.5266). However, Duval (2004) shows that, planning for retirement over the life course is required to be connected to the time the individual is expected to retire. This is because, according to Earl and Archibald (2012), retirement

planning over the life course is more than just accumulating resources, and requires knowing when an individual will retire. When the individual is aware of the retirement duration, he or she will be able to estimate how much will be needed as retirement expenditure, so that the right accumulation of financial resources can be done (Ebbinghaus and Hofacker, 2013).

To be able to engage adequately in life course activities, Donaldson, Earl and Muratore (2010) provide that individuals need to have access to retirement information. This is because, access to retirement information, according to Lusardi *et al.* (2017) exposes people to different retirement planning techniques. These retirement planning techniques assist the individual to plan adequately for retirement. It was therefore important to know the sources that individuals receive their retirement information and the extent to which those sources are likely to affect their retirement decisions.

Source of Retirement Information

The study discussed the extent to which sources of retirement information affects retirement planning. McKinnon (2013) argues that, the rational choice theory considers the sources from which individuals obtain retirement information as important in defining their ability to plan for retirement. The discussions on the sources of retirement information comprised personal research, information from retirement planning advisors, media, internet, corporate flyers, and seminars. Other sources were information from friends, family and private pension trustees. In

Table 17, respondents provided the extent to which they are affected by the various sources of retirement information in planning their retirement.

Table 17: Sources of Retirement Planning Information

Sources	Not at all		Somehow		To an extent		Relatively large extent		Very large extent		Total	
	f	%	f	%	f	%	f	%	f	%	f	(%)
Personal Research	128	19.4	100	15.2	132	20.0	120	18.2	180	27.2	660	100
Planning advisors	160	24.2	76	11.5	168	25.5	104	15.8	152	23.0	660	100
Media	132	20.0	84	12.7	160	24.2	156	23.6	128	19.5	660	100
Corporate flyers	196	29.7	132	20.0	144	21.8	88	13.3	100	15.2	660	100
Seminars	224	33.9	144	21.9	112	17.0	92	13.9	88	13.3	660	100
Internet	132	20.0	108	16.4	124	18.8	164	24.8	132	20.0	660	100
Discussions with friends	176	26.7	128	19.4	152	23.0	112	17.0	92	13.9	660	100
Discussions with family	184	27.9	132	20.0	108	16.4	136	20.5	100	15.2	660	100
Private pension trustees	156	23.6	112	17.0	108	16.4	128	19.4	156	23.6	660	100
n = 660												

Source: Field Survey (2022)

Evidence from the study revealed that the sources of retirement information obtained by respondents were from personal research, internet, retirement planning advisors and the media. For instance, it was evident that while 27.3 percent of respondents, to a very large extent, sourced retirement information from personal research, 25.5 percent obtained information from retirement planning advisors. Cumulatively, more than 60 percent of respondents, to an extent, plan their retirement by obtaining retirement information from the four sources. These results concur with the work by Hira, Rock and Loibl (2009) that individuals who sourced retirement information by themselves, from internet, print media and financial advisors own a private retirement account. The finding also supports the underlying assumptions of the rational choice theory that, individuals make decisions when they have all the necessary knowledge.

On the other hand, it was found that sources such as corporate flyers provided by employers, attending retirement seminars, discussions with friends, family and private pension trustees were used less in obtaining retirement information. For instance, while nearly 34 percent of respondents did not acquire any retirement information from attending seminars, 29.7 percent did not obtain any information via business or corporate flyers. These findings contrasted the works by Devlin (2012) and Zeka and Matchaba-Hove (2016) who demonstrated through similar studies on workers that those who sought retirement information from friends, and families planned their retirement.

The data also revealed that among the four subsamples, they all obtained retirement information from different sources. Nurses and midwives obtained retirement information more from personal research, media and internet, whereas medical practitioners obtained retirement information more from family, media, retirement planning advisors and personal research. Pharmacists, laboratory technicians and physician assistants obtained retirement information from all the sources. It suggests that the various healthcare workers have different sources of obtaining retirement information, which may be due to differences in educational and professional backgrounds. This result also implies that different workers even within the same sector plan their retirement by obtaining retirement information from varying sources.

CHAPTER SIX

EFFECT OF FINANCIAL ATTITUDES ON RETIREMENT PLANNING

Introduction

The chapter is devoted to the second research objective which examined the effect of financial attitude on retirement planning of healthcare workers, with the study being underpinned theoretically by the rational choice, life cycle and life course theories. The dimensions of financial attitude comprised attitude towards retirement, financial risk tolerance and financial knowledge whereas retirement planning was a binary variable. While attitude towards retirement was measured by two dimensions, future time perspective and retirement goal clarity; financial risk tolerance and financial knowledge were represented as independent dimensions of financial attitude.

An index for each of the financial attitude dimensions was computed using healthcare workers' scores on a seven-point scale. A theoretical mean of four and more implied good financial attitude, while any figure less than the mean implied otherwise. Financial attitude was hypothesised to influence the retirement planning of healthcare workers. The issues in this chapter were analysed using descriptive statistics and logistic regression. Results from the descriptive statistics was disaggregated based on the four subsamples of healthcare workers to ascertain differences in financial attitude across groups. Lastly, the indexes of the financial attitude were used in logistic regression to predict the probability of workers planning for retirement. In all, a total of 660 respondents were used in the analysis

with a statistical significance level of an alpha of 0.05. First, the descriptive analysis of financial attitude of healthcare workers are presented.

Financial Attitudes of Healthcare Workers

Financial attitude reflects the choices individuals make in planning for retirement and in support of this assertion, Lusardi *et al.* (2017) observed that individuals with good financial attitude are able to accumulate wealth for retirement. As a result of this, it was imperative to ascertain how attitude toward retirement, financial risk and financial knowledge influenced retirement planning of healthcare workers. In doing so, descriptive statistics on financial attitude dimensions were presented by first addressing the attitude of healthcare workers toward retirement.

Attitude toward Retirement

Attitude toward retirement was determined by future time perspective and retirement goal clarity. Hershey *et al.* (2010) show that while future time perspective demonstrates how an individual sees retirement in the future, retirement clarity goal involves the act of setting personal goals of retirement for the future. In Table 18, descriptive result on future time perspective is presented.

Table 18: Descriptive Statistics of Future Time Perspective

Future Time Perspective	Minimum	Maximum	Mean	S. D
I follow advice to save for my future	1	7	5.3455	1.8159
I enjoy thinking about how I will live years from now	1	7	4.9091	1.9173
The future is certain and clear to me	1	7	4.2182	1.8862
As I get older, I begin to experience time as limited	1	7	4.4364	2.0114
I live on a day-to-day basis	1	7	3.5758	1.9309
I enjoy living for the moment and not knowing what tomorrow will bring	1	7	2.9758	2.0164
I have the sense that time is running out for me to plan my retirement	1	7	3.8303	2.0601
There are limited possibilities in my life	1	7	3.4970	2.1096
Overall Mean			4.6840	1.3444
n= 660				

Source: Field Survey (2022)

The study showed that respondents had different future time perspective of retirement. While more of the respondents (Mean= 4.6840; S. D= 1.3444) displayed good future time perspective, others also showed otherwise. For instance, it was found that more of the respondents (Mean= 5.3455; S. D= 1.8159) followed advice to save for their future. The implication is that healthcare workers who follow financial advices will be more equipped with knowledge in retirement planning and

are more likely to plan for retirement, according to Mohd *et al.* (2015). These findings are indications of good financial attitude, as suggested by Lusardi *et al.* (2017), and demonstrates that more healthcare workers have the tendency to accumulate wealth so as to improve their welfare in retirement as elaborated by Hershey *et al.* (2010).

The finding also reflects the direction in the conceptual framework that during the life course of respondents, they come into contact with people who advise them on how to plan their retirement. By following through the advice, they are able to plan clearly. As a result of this, they developed positive attitudes toward retirement which motivates them to save or plan their retirement. In addition, the study's finding is supported by the rational choice, life cycle and life course theories that, individuals who are rational actors acquire the necessary retirement information during their life course in order to make decisions for retirement. As information is acquired and people go through the various stages of the life cycle, they are able to develop good attitudes toward retirement which serves as the basis in assisting them to plan their retirement.

On the other hand, some respondents displayed poor future time perspective in certain areas. For instance, the study showed that more of the respondents (Mean= 3.8303; S. D= 2.0601) had the sense that time was running out for them to plan their retirement. In addition, others (Mean= 2.9758; S. D= 2.0164) enjoyed living for the moment and not knowing what tomorrow will bring. These, according to Njunge (2013) and Sablik (2016), may affect the ability of healthcare workers to

save for retirement, because when individuals consider their age and current income, they may not see many chances of possibilities in their lives.

With a mean of 5.1429 and standard deviation of 1.3761 (Median = 5.4286; Skewness = -.059), pharmacists and laboratory technicians had good future time perspective of retirement, followed by nurses and midwives. Medical officers also had good future time perspective of retirement (Mean= 4.1304; S. D= 0.9073), although they were the least group. It establishes that healthcare workers have good future time perspective and this is expected to help them have clarity in their retirement goals as espoused by Stawski *et al.* (2007).

Retirement Goal Clarity

Zeka and Matchaba-Hove (2016) argue that a clear retirement goal provides the path to adopt positive financial attitudes which assist individuals to plan for retirement. By examining Table 19, the data showed that more of the respondents (Mean= 3.5394; S. D= 2.3618) have failed to discuss their retirement plans with a friend. The inability of respondents to have retirement discussions with friends is likely to affect how they plan their retirement, while also threatening their welfare standards during retirement, as noted by Clark and Lusardi (2011). As emphasized by Devlin (2012), when people discuss their retirement plans with friends, they are able to learn more from each other regarding different retirement plans. In so doing, people learn to accumulate wealth for the period of retirement, but this is not the case for healthcare workers.

Table 19: Descriptive Statistics on Retirement Goal Clarity

Retirement Goal Clarity	Minimum	Maximum	Mean	S. D
I have clear set goals about my retirement	1	7	4.9636	1.8824
I have thought a great deal about the quality of life in retirement	1	7	5.1758	1.7968
I have set specific goals for how much I will need to save for retirement	1	7	4.8121	1.7683
I have set specific goals for how much I will spend in retirement	1	7	4.4909	1.9697
I have clear vision of how life will be for me in retirement	1	7	4.5394	2.0151
I have discussed my retirement plans with my family	1	7	4.3576	6.0898
I have discussed my retirement plans with a friend or significant other	1	7	3.5394	2.3618
Overall Mean			4.5541	1.8178
n= 660				

Source: Field Survey (2022)

Additionally in Table 19, notwithstanding the dearth of retirement discussions with friends, the study found clarity in retirement goals in other areas of concern to healthcare workers. For example, the results showed that more of the respondents (Mean= 4.9636; S. D= 1.8824) have set clear goals about their retirement. In addition, others have specific goals for how much they will need during retirement, have vision of how life will be for them in retirement and have

thought of the quality of life in retirement. These retirement goal clarities are panaceas to ensuring that healthcare workers accumulate wealth for retirement. This is because Jacobs-Lawson and Hershey (2005) and Hershey *et al.* (2010) show that the clarity in retirement goals provides a guide or direction to people in achieving their set personal targets for retirement.

Overall, more of the sampled respondents (Mean = 4.5541; S. D= 1.8178) have clarity in their retirement goals. This is an indication that healthcare workers are expected to plan their retirement and have improved welfare standards in retirement. As illustrated in the conceptual framework, respondents who over their life course have specific goals and a clear vision of how their lives will be in retirement will accumulate wealth in order to have a quality retirement life. These findings also support the rational choice and life cycle theories which was explained by Jackson (2009) that, individuals with clarity in retirement goals are able to build wealth that will be consumed in later years.

Evidence from the four subsamples revealed that pharmacists and laboratory technicians (Mean= 5.2782; S. D= 1.4293) had better retirement goal clarity compared to all the other groups. Physician assistants followed (Mean= 5.1497; S. D= 1.5354) as the next subgroup, with nurses and midwives being the least among all the subsample (Mean = 4.2591; S. D= 1.5876) to have clarity in retirement goals. It indicates that healthcare workers in all subgroups have made conscious effort to plan or strategise their retirement and this is expected to guarantee their economic security. Magendans *et al.* (2016) explain that, to be

economically secured in retirement, an individual is required to tolerate less financial risk during his or her active years of work.

Financial Risk Tolerance

Financial risk tolerance provides the basis for assessing healthcare workers' preparedness and willingness to take risks in the midst of financial uncertainties as espoused by Grable *et al*. (2009). Per the rational choice theory, the ability of an individual to take risks predicts his or her financial attitude and determines the level of wealth an individual can accumulate for retirement. In examining financial risk tolerance of respondents, the descriptive data (Table 20) revealed that there was different level of financial risk tolerance among respondents. While some tolerated high financial risks in certain areas, others were more risk averse.

In four out of ten items, more of the sampled respondents tolerated high financial risk. For instance, evidence from the study showed that more of the sampled respondents (Mean= 4.2606; S. D= 2.1811) preferred short term investments where they can make returns faster. Additionally, more of the respondents (Mean= 4.1576; S. D= 2.0581) were willing to withstand some fluctuations in their investments. These are indications that many healthcare workers are willing to engage in risky investments in certain areas in order to get higher financial benefits. But, Lusardi and Mitchell (2017) show that tolerating such high financial risk may be detrimental to a person's retirement investment since high financial risk may lead to higher losses.

Table 20: Descriptive Statistics on Financial Risk Tolerance

Financial Risk Tolerance	Minimum	Maximum	Mean	S. D
I am willing to risk financial losses to maximise my returns	1	7	3.3455	2.0543
I easily undertake risky investments	1	7	3.2848	2.1302
I prefer investments that have higher returns even though they are riskier	1	7	3.3394	2.1966
So long as the returns are high, I do not mind if the investment scheme is unregulated	1	7	2.4182	1.8635
I am willing to engage in risky investment to ensure financial stability in retirement	1	7	2.9091	2.0160
I will never choose the safest investment when planning for retirement	1	7	3.1818	2.3301
Protecting my investment is more important to me than high returns	1	7	4.7636	2.0580
Long term investments make me nervous	1	7	4.3939	2.2328
I prefer short term investments	1	7	4.2606	2.1811
I am willing to withstand some fluctuations in my investments	1	7	4.1576	2.0581
Overall Mean			3.6055	1.2824
n= 660				

Source: Field Survey (2022)

On the other hand, in Table 20, more of the sampled respondents demonstrated their risk aversion. This was evident in the overall mean result as many individuals (Mean= 3.6055; S. D= 2.0543) felt that protecting their investments and not taking too much risk was more important to them. Further, the data also depicted that many did not prefer riskier investment as they did not want to invest in unregulated investment schemes regardless of the higher returns. Being risk averse, according to Grimaldi (2018) is good in carrying into effect an individual's retirement plans, because excessive risks may erode gains and lead to financial losses. The findings support the argument of the rational choice theory, as suggested by Mohd *et al.* (2017), Koe and Ken (2018) and Mulder (2019) and the conceptual framework that, individuals who tolerate fewer financial risks or are risk averse, develop the right financial attitude aimed at planning for retirement.

Even though, many healthcare workers demonstrated risk aversion, pharmacists and laboratory technicians displayed otherwise (Mean= 4.3000; S. D= 1.5055) compared to all other subgroups. It is an indication that these pharmacists and laboratory technicians will tolerate high financial risks in order to attain higher benefits in their quest to accumulate wealth for retirement. Although higher financial risks may lead to higher returns and wealth accumulation for retirement, Grable *et al.* (2009) note that tolerating higher financial risks in saving for retirement may jeopardise the plans when losses occur. Therefore, Almenberg and Save-Soderbergh (2011) suggest that for a person to take on higher financial risks, he or she is required to be financially knowledgeable, and I discuss the result on financial knowledge among healthcare workers in the next section.

Financial Knowledge

This part of the study provided the descriptive analysis of financial knowledge of healthcare workers as contained in Table 21. The essence was to understand whether healthcare workers have the required financial knowledge that can aid them in planning for retirement. According to Lusardi, Mitchell and Oggero (2018), individuals who are financially knowledgeable develop the right attitude toward securing their old age. In the same vein, Koe and Ken (2018) show as per the rational choice theory that people with financial knowledge are able to accumulate financial resources that guarantee them income security.

The result from Table 21 showed that financial knowledge among respondents was high. The higher financial knowledge was manifested in various forms as more of the sampled respondents (Mean= 4.9270; S. D= 2.1371) are able to review and compare investment performance. In addition, many respondents are knowledgeable about how private investment works and how interest rates are computed. It indicates that healthcare workers have the skill and competence to deal with their personal finances.

The finding affirms the position of Hogarth and Hilgerth (2003) that the skills and competence of personal finances or financial knowledge are expected to help individuals accumulate wealth. This position was also supported by Ross and Will (2009) who observed that the more an individual demonstrates financial knowledge, the more he or she is likely to accumulate wealth for retirement. As illustrated in the conceptual framework of the study, workers who plan their retirement are assumed to be financially knowledgeable, and that the more a person

exhibit good financial knowledge, the more he or she is likely to allocate resources effectively to accumulate wealth or save to finance consumption in later life. In the end, the financial knowledge enables individuals to save and accumulate wealth for the period of retirement.

Table 21: Descriptive Statistics on Financial Knowledge

Financial Knowledge	Minimum	Maximum	Mean	S. D
I am knowledgeable on how interest rate is computed	1	7	4.7394	1.9644
Conversance with pension schemes	1	7	4.3212	1.9709
I am very confident in my ability to plan my retirement	1	7	4.7152	1.8594
When I have need for financial services, I know exactly where to obtain information on what to do	1	7	4.7030	1.9991
Knowledge about how social security works	1	7	4.6182	1.9003
Knowledge about how private investment works	1	7	4.2970	2.0293
Review and compare investment performance	1	7	4.9270	2.1371
I know how to plan my personal finances to secure my retirement	1	7	4.5212	1.9102
Knowledge in calculations of benefits due on retirement	1	7	3.4606	2.1264
I understand investment options for pension schemes	1	7	3.9333	1.9713
Overall Mean			4.3606	1.6422
n= 660				

Source: Field Survey (2022)

However, the study found that healthcare workers displayed low financial knowledge in two areas. While, more of the sampled respondents (Mean= 3.4606; S. D= 2.1264) demonstrated little financial knowledge about their ability to compute retirement benefits, others also (Mean= 3.9333; S. D= 1.9713) do not understand investment options for pension schemes. These show that healthcare workers may have some level of difficulty planning their retirement without assistance since Patternote (2015) suggests that these are the essential elements that help individuals to remain committed in retirement planning. Additionally, the lack of understanding of investment options and inability to compute retirement benefits may affect the decisions of individuals, because they may not be able to weigh the possible risks and benefits of investments, as noted by Koe and Ken (2018).

Overall, healthcare workers (Mean= 4.3066; S. D= 1.6422) displayed adequate financial knowledge needed to plan their retirement. This financial knowledge, according to Choi *et al.* (2016) is likely to impact positively on the decisions that healthcare workers take in the midst of benefits, opportunities, limitations and constraints. Among healthcare workers, data from the study revealed that physician assistants (Mean= 5.0429; S. D= 1.6826) were more financially knowledgeable than all other subgroups.

The display of financial knowledge by physician assistants was followed by pharmacists and laboratory technicians (Mean= 4.8474; S. D= 1.7616), but medical officers were found to have the least financial knowledge. The result may not support the assertion by Almenberg and Save-Soderbergh (2011) that, individuals who take on higher financial risks may be more financially knowledgeable, since

in this study, those who are risk averse are more financially knowledgeable. The financial attitude displayed by healthcare workers are expected to help them to plan their retirement by accumulating wealth as indicated by the rational choice theory and Lusardi *et al.* (2018). In the next section, attention is turned toward analysing the relationship between financial attitude dimensions and retirement planning.

Relationship between Financial Attitude and Retirement Planning

In order to predict the likelihood of financial attitude influencing retirement planning of healthcare workers, a binary logistic regression analysis was performed. To elaborate, the analysis showed how a financially knowledgeable healthcare worker is likely to plan for retirement. Similarly, it assessed how a financial risk tolerant worker is likely to engage in retirement planning. Additionally, it also assessed how attitude toward retirement is likely to predict retirement planning of healthcare workers. Moreover, the analysis helped in determining the relative importance of each predictor in the model. To start with, the dimensions of attitude towards retirement were measured by future time perspective and retirement goal clarity.

The items concerning future time perspective and retirement goal clarity were derived from previous works of Jacobs-Lawson and Hershey (2005) and Stawski *et al.* (2007). Future time perspective was measured by eight items (Cronbach Alpha = 0.742, minimum inter-item correlation = 0.163) and retirement goal clarity by seven items (Cronbach Alpha = 0.731, minimum inter-item correlation = 0.239). The other measures of financial attitude were financial risk

tolerance (Cronbach Alpha = 0.809, minimum inter-item correlation = 0.125) and financial knowledge (Cronbach Alpha = 0.948, minimum inter-item correlation = 0.495) and they were determined by 10 items each.

These constructs are theorised to encourage retirement planning of healthcare workers as supported by Van Rooij *et al.* (2011), Heenkanda (2017) and Bacova and Kostovicova (2018). In addition, as illustrated in the conceptual framework of the study, individuals who are financially knowledgeable, take on adequate financial risk and have good attitudes toward retirement are able to plan their retirement by accumulating wealth.

After the computation of the test of reliability, an index for each of the attitude towards retirement dimension was computed. The index was calculated based on the scores of respondents and their level of agreement with each of the statements about their future time perspective and retirement goal clarity. The index was computed by the average scores from each statement as was applied by Heenkanda (2017). The averaged index or score for future time perspective and retirement goal clarity was also computed to determine the attitude towards retirement. Where an individual scored more than the theoretical mean of four, he or she was deemed as having good attitude towards retirement. On the other hand, any figure below the theoretical mean of 4 implied weak attitude toward retirement.

Similar indexes were used to measure financial risk tolerance and financial knowledge. A mean of four or more for financial risk tolerance implied that the individual is willing to take high financial risks, while a mean less than four indicated otherwise. Similarly, a theoretical mean of four or more for financial

knowledge implied that the individual had good financial knowledge while a lower mean implied otherwise. The study dichotomised the dependent variable based on the status of each respondent having a personal or individual retirement account or not. Respondents who had personal retirement accounts were coded '1' whereas individuals without personal retirement account were coded as '0'. The output confirmed that 276 respondents had individual retirement account whereas 384 did not have personal retirement accounts. Afterwards, the model was tested to ascertain its goodness of fit and robustness.

The result (chi-square value = 7.8, d.f = 3, p-value = 0.049) showed that the model was reliable suggesting that overall, it is a very good predictor of retirement planning. In support of the robustness of the model, the Hosmer and Lemeshow test showed a chi-square value of 35.428, with eight degrees of freedom and a p-value of 0.052 which is greater than the significance level of 0.05. Further presentation of data revealed that the Cox and Snell R-square was 0.12 while the Nagelkerke R-square was 0.16. The Nagelkerke R-square, which is an adjusted version of the Cox and Snell R-square shows that financial attitude explains about 16 percent of the variance in retirement planning.

In Table 22, the result from the logistic regression is presented. This was to demonstrate how financial attitude dimensions predicted healthcare workers' retirement account status. The odds ratio measures the association between the predictors and probability of workers planning for retirement. It is important to note that in determining the probabilities of healthcare workers' retirement plans, there are two relevant indicators. First, the positive sign of a parameter indicates that a

higher value of the variables will show the probability that healthcare workers plan for retirement compared to those who do not plan for retirement. On the other hand, the negative sign indicates that a higher value of the variable will show the probability that respondents do not plan their retirement compared to those who do.

Table 22: Variables in the Binary Logistic Model

	Variable	B	S. E	Wald	Df	Sig	Exp (B)
Step 1[a]	ATR Index	-0.265	0.093	8.097	1	0.004**	0.767
	FRT Index	0.022	0.053	0.175	1	0.676	1.022
	FK Index	0.040	0.049	0.672	1	0.412	1.041
	Constant	1.849	0.372	24.657	1	0.000	6.356

a. Variable(s) entered on step 1: Attitude Toward Retirement (ART), Financial Risk Tolerance (FRT), Financial Knowledge (FK), **p-value < 0.05

Source: Field Survey (2022)

The results from Table 22 demonstrate that attitude towards retirement, financial risk tolerance, and financial knowledge revealed different levels of statistical significance. For instance, the parameter for attitude towards retirement coefficient means that as attitude towards retirement improves the odds that the worker will plan for retirement declines ($\beta = -0.265$, Wald = 8.097, Exp (B)= 0.767, d.f = 1, p-value < 0.05). This finding is contrary to those of Hershey, Henkens and Van Dalen (2007), and Hira, Rock and Loibl (2009) who showed that workers with positive attitude towards retirement planned for their retirement. Another study by Hershey, Henkens and Van Dalen (2010) also established positive relationships between attitude towards retirement and retirement planning.

The finding is also inconsistent with the conceptual framework, that individuals with positive attitudes toward retirement are plan their retirement by accumulating wealth. The result of my study also disagrees with the rational choice theory which demonstrates that an individual who has access to financial information puts up positive attitude towards retirement by saving for the period of retirement. However, McKinnon (2013) suggest that, the inability of the rational choice theory to consider people's consumption against their savings could account for healthcare workers' restraint of saving for retirement, even though they have good attitude toward retirement.

On the other hand, results from financial risk tolerance ($\beta = 0.022$, Wald = 0.175, d.f = 1, p-value < 0.676) and financial knowledge ($\beta = 0.040$, Wald = 0.672, d.f = 1, p-value = 0.412) are not statistically significant. The findings disagree with the rational choice theory and the conceptual framework, that financial risk tolerance and financial knowledge determine retirement planning. In addition, it departs from the study of Wong *et al.* (2019), who also revealed that an individual's level of risk or attitude toward risk predicted the decision to save in a high risk or low risk retirement savings product. In the same vein, Hershey, Henkens and Van Dalen (2007), Lusardi *et al.* (2018), Mohd *et al.* (2017), Lusardi (2019) and Mulder (2019) established that individuals who are more financially knowledgeable develop the right financial attitude that help in planning for retirement, but this study showed otherwise.

Even though healthcare workers are financially knowledgeable and take less risk, they do not plan their retirement and this, according to the life course

theory may be caused by institutional structural failures such as inflation, lack of confidence in the pension systems, and socio-economic factors. As provided by Elder *et al.* (2003), accumulating wealth for retirement also requires efficient institutional structures since individual lives are interdependent within the social environment. Therefore, Lee and Kim (2016) were of the view that state policies on pension schemes need to inspire confidence and provide security that will inspire individuals to accumulate wealth. As a result, in the next chapter of the study, I investigate how some of these social and economic factors play a role in determining the ability of healthcare workers to plan their retirement.

CHAPTER SEVEN

SOCIO-ECONOMIC FACTORS AND RETIREMENT PLANNING: THE MEDIATING ROLE OF FINANCIAL ATTITUDE

Introduction

In this chapter, I examined the influence of social and economic factors on retirement planning among healthcare workers. Socio-economic factors included age, sex, marital status, income, type of healthcare profession and education. Other socio-economic issues such as how influence from friends, coworkers, spouses, families, cost of living and confidence in the economy affect retirement planning were discussed. Subsequently, the study analysed how attitude toward retirement, financial risk tolerance and financial knowledge mediate in the relationship between socio-economic factors and retirement planning. These discussions were backed by the theoretical arguments of the rational choice, life cycle and life course theories. Descriptive statistics, Chi-square test, and structural equation modelling were employed in analysing data. The analyses of data were based on a sample size of 660 at a significance level of 0.05.

Socio-Economic Characteristics and Retirement Planning

This section presented results on how age, income, marital status, education and type of profession affect retirement planning of healthcare workers. The chi-square test was used to establish significant associations between socio-economic characteristics and retirement planning. This was against the backdrop of an argument made by Lusardi *et al.* (2017) that people's socio-economic status affects

their ability to save for retirement. To begin with, Table 23 contains evidence on the association between sex and retirement planning.

Table 23: Sex and Retirement Planning of Healthcare Workers

Sex	Retirement planning account					
	Yes		No		Total	
	f	%	f	%	f	%
Male	60	9.1	132	20.1	192	29.3
Female	216	32.3	252	38.4	468	70.7
Total	276	41.5	384	58.5	660	100.0

Source: Field Survey (2022)

$\chi^2 = 11.666$; d. f =1; p-value = 0.001

The association between sex and retirement planning was statistically significant ($\chi^2 = 11.666$; d. f =1; Phi= 0.133; p-value = 0.001). This illustrates that sex is an important determinant of retirement planning as portrayed by the conceptual framework and empirical work by Lusardi *et al.* (2017). However, the result showed that women plan their retirement compared to men, which differs from the work of Fernandez-Lopez, Otero, Vivel and Rodeiro (2010) who found among eight European countries that men save for retirement than women.

The study's finding also differs from that of Lusardi *et al.* (2018) who also demonstrated that women are less likely to plan for retirement than men. The reasons given by the authors for men saving more than the women has been that, women often earn lower incomes and are also supportive of the home with their

incomes which causes them not to save. The study also found a significant association between marital status and retirement planning (Table 24).

Table 24: Marital Status and Retirement Planning

Marital Status	Retirement planning account					
	Yes		No		Total	
	f	%	f	%	f	%
Single	144	21.3	232	35.4	376	56.7
Married	132	20.1	152	23.2	284	43.3
Total	276	41.4	384	58.6	660	100.0

Source: Field Survey (2022)

$\chi^2 = 5.190$; d. f =1; p-value = 0.023

Marital status and retirement planning showed a statistically significant association ($\chi^2 = 5.190$; d. f =1; Phi= 0.089; p-value = 0.023). The result demonstrate that marital status affects how people plan their retirement and this also provide support to the conceptual framework and studies by Adami and Gough (2008) and Fernandez-Lopez *et al.* (2010). Healthcare workers who are single plan their retirement as compared to fellow married workers, contrary to studies by Van-Solinge (2012), Mohd *et al.* (2015) and Lusardi (2019).

According to Sablik (2016), single individuals are able to save because, they have fewer dependents. As a result, they will have more disposable income and less expenses to incur. However, those married will have less disposable income due to significant expenses involving their children, making it difficult for them to save as

suggested by Gobeski and Beehr (2009). From Table 25, the distribution on the association between education and retirement planning can be observed.

Table 25: Education and Retirement Planning

Education	Retirement planning account					
	Yes		No		Total	
	f	%	f	%	f	%
Diploma	92	13.4	184	28.0	276	41.5
Degree	128	19.5	156	23.8	284	43.3
Postgraduate	56	8.5	44	6.7	100	15.2
Total	276	41.5	384	58.5	660	100.0

Source: Field Survey (2022)

$\chi^2 = 19.530$; d. f =2; p-value = 0.000

The association between education and retirement planning was statistically significant ($\chi^2 = 19.530$; d. f =2; Cramer's V= 0.173; p-value = 0.000). It can be observed that more of the sampled respondents who have higher level of education have individual retirement accounts. This implies that people's level of education affects their retirement plans which corroborates the findings of Adam and Gough (2008), and Fernandez-Lopez, *et al.* (2010) that, individuals with higher level of education plan their retirement. The result also supports the conceptual framework and that of the life cycle theory which elaborate that as people attain higher level of education, they earn more income which supports their ability to save for retirement. It is also evident from Table 26, that there exists an association between type of healthcare profession and retirement planning.

Table 26: Type of Healthcare Profession and Retirement Planning

	Retirement planning account					
Type of Healthcare Prof.	Yes		No		Total	
	f	%	f	%	f	%
Rgt Nurse	156	23.6	152	23.0	308	46.6
Med. Prac.	48	7.3	74	11.2	122	18.5
Pharm/Lab.	36	5.5	78	11.8	114	17.3
Physician A.	36	5.5	80	12.1	116	17.6
Total	276	41.8	384	58.2	660	100.0

Source: Field Survey (2022); $\chi^2 = 8.483$; d. f =3; p-value = 0.037

The type of healthcare professional and retirement planning revealed a statistically significant association ($\chi^2 = 8.483$; d. f =3; Cramer's V= 0.113; p-value = 0.037). It explains that relatively more registered nurses and midwives plan their retirement compared to their counterparts in the same healthcare sector.

Clark and Lusardi (2011) assert that individuals at different ages save for retirement. In the same vein, the life cycle theory views that when individuals are young, they save less, but increase savings during their industrious years and their level of savings decline thereafter when they are old or enter into retirement. It was therefore relevant for the study to investigate the association between age of respondents and retirement planning. In order to do this, the raw data were grouped into classes, consistent with Ofosu and Hesse's (2011) study. With healthcare workers statutory retirement at 60 years, a width of 10 years was used in

constructing the frequency distribution (Table 27), similar to Boyeteey's (2019) study. Due to some missing data on the ages, the applicable sample size was 584.

Table 27: Age and Retirement Planning

Age (yrs)	Retirement planning account					
	Yes		No		Total	
	f	%	f	%	f	%
20-29	132	21.9	236	40.4	364	62.3
30-39	92	15.8	88	15.1	180	30.8
40-49	24	4.1	4	0.7	28	4.8
50-59	8	1.4	4	0.7	12	2.1
Total	256	43.2	332	56.8	584	100.0

Source: Field Survey (2022)

$\chi^2 = 37.497$; d. f =3; p-value = 0.000

The results showed that a statistically significant association exist between age and retirement planning ($\chi^2 = 37.497$; d. f =3; Cramer's V= 0.253; p-value = 0.000). This implies that as people age, they save for retirement, consistent with the findings of Fernandez-Lopez *et al.* (2010) and Lusardi *et al.* (2018) that people save more in their industrious years and less when they are in old age. The study's findings also support the life cycle theory and conceptual framework which showed that as people grow in age, they plan their retirement by accumulating wealth.

Karina and Anne (2019) assert that income is an important variable that determines an individual's ability to save for retirement. Based on this, the study investigated the association between income and retirement planning and data were

disaggregated, consistent with Ken and Koe's (2018) study and a width of GH¢1,000 was used in constructing the frequency distribution on Table 28.

Table 28: Income and Retirement Planning

Income Level (Gh¢)	Retirement planning account					
	Yes		No		Total	
	f	%	f	%	f	%
Less than 1,000	0	0	16	4.3	16	4.3
1,001-2,000	76	20.4	112	30.1	188	50.5
2,001-3,000	40	10.8	52	14.0	92	24.7
3,001-4,000	36	9.7	20	5.4	56	15.1
4,001-5,000	12	3.2	4	1.1	16	4.3
5,000+	4	1.1	0	0	4	1.1
Total	168	45.2	204	54.8	372	100.0

Source: Field Survey (2022)

The results of the study revealed that a statistically significant association exist between healthcare workers' net monthly income and retirement planning (χ^2 = 33.864; d. f =5; Cramer's V= 0.302; p-value = 0.000). This implies that net monthly income of healthcare workers affects their retirement planning, which concurs with the life cycle theory and conceptual framework that as people's income increase, they save more for retirement. The analysis is also consistent with the findings by Fernandez-Lopez *et al.* (2010), and Wong *et al.* (2019) that individuals with high incomes save for retirement.

Kohli (2007) and Mohring (2015) note that individual lives are planned and interdependent within a social environment and that the decision of a worker to plan his or her retirement over the life course is dependent on social influence from coworkers, friends, spouses, family members and the society. It is on this basis that the social factors that affect retirement planning are investigated on Table 29.

Table 29: Social Factors that Affect Retirement Planning

Social Factors	Not at all		Somehow		To an extent		Relatively large extent		Very large extent		Total	
	f	%	f	%	f	%	f	%	f	%	f	(%)
Influence from coworkers	216	32.7	116	17.6	152	23.0	120	18.2	56	8.5	660	100
Influence from spouses/partners	180	27.3	80	12.1	116	17.6	184	27.9	4	0.6	660	100
Influence from family members	180	27.3	104	15.8	156	23.6	96	14.5	124	18.8	660	100
Influence from friends	192	29.1	132	20.0	176	26.7	92	13.9	68	10.3	660	100
Influence from the institution I work	172	26.1	104	15.8	160	24.2	124	18.8	100	15.2	660	100
Influence from the society I come from	176	26.7	104	15.8	128	19.4	152	23.0	100	15.2	660	100
Influence from the life experiences of other retirees	60	9.1	56	8.5	56	8.5	156	23.6	332	50.3	660	100
n = 660												

Source: Field Survey (2022)

The findings from the study revealed that the social factors that mostly affected retirement planning of healthcare workers were their relationship with spouses or partners and the life experiences of other retirees. For example, 50.3 percent of the respondents who save for retirement, do so, to a large extent through the life experiences of other retirees. This finding supports the assertions made by Elder and Johnson (2003) from the life course theory that individual lives are linked to previous life experiences of others and the social environment in which a person finds him or herself. Additionally, 27.9 percent of the respondents, to a relatively large extent, were affected by their spouses or partners to save for retirement. This evinces the role played by individual's partners as observed by Hershey *et al.* (2010) and Poterba (2014), that when people live together and more especially as they have children, they tend to plan their future with the retirement period in mind.

On the other hand, the results revealed that respondents' ability to save for retirement was not affected by their relationship with friends, coworkers, family, the society they come from and institution they work. For example, it was apparent from the findings that, more (32.7%) of the respondents' indicated that their coworkers had no influence at all on their saving for retirement. In addition, 29.1 percent of respondents' friends did not affect their ability to save for retirement at all, whereas the society that people come from did not also affect 26.7 percent of the respondents' ability to save for retirement.

This implies that respondents do not consider their ability to save for retirement to be affected by their relationships with friends, and coworkers, contrary to findings from Hershey *et al.* (2010) and Clark and Lusardi (2011), that

people who save for retirement engage socially by seeking financial advice from friends and families. However, Chipote and Tsegaye (2014) suggest that, it is the individuals' ability to discuss matters on retirement and their exposure to financial and retirement information, that motivates them to plan for their retirement, and not necessarily, the personal relationship they have with others. In effect, Clark *et al.* (2016) elaborate that, it is people's discussions on issues of retirement and exposure to retirement information that put them in a position to plan for their retirement.

The disaggregation of data showed that the four subgroups were affected differently when saving for retirement. Among nurses and midwives, the results revealed that socially, they were affected to save for retirement due to their relationships with spouses, the society they come from, the institution they work with and life experiences of older retirees, but medical doctors and physician assistants were only affected socially by the life experiences of older retirees. On the other hand, pharmacists and laboratory technicians were affected socially to plan their retirement by their spouses, the society they come from and the life experiences of older retirees.

The implication drawn is that the social factors affecting individuals' retirement planning are based on individual backgrounds and that, what may influence one person to plan his or her retirement may differ from another, as suggested by the tenets of the life course theory. For example, while Kohli (2007) explained that people's lives are planned and interdependent within a social environment, Sablik (2016) evinces that the decision to save for retirement is dependent on a person's consumption and income and these makes individuals

distinct in their decisions to save. Barnes-Farrell (2003) also argues that economic factors inspire a person to make decisions towards retirement planning. According to Lusardi (2019), an individual is more likely to plan for retirement due to unknown economic situations. Therefore, in Table 30, the result of the influence of economic factors on respondents' ability to plan their retirement are presented.

Table 30: Economic Factors Influencing Retirement Planning of Healthcare Workers

Economic Factors	Not at all		Somehow		To an extent		Relatively large extent		Very large extent		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Quality of pensions	116	17.6	104	15.8	172	26.1	132	20.0	136	20.6	660	100
Retirement income suff.	40	6.1	52	7.9	96	14.5	184	27.9	288	43.6	660	100
Standard of living in retirement	16	2.4	40	6.1	64	9.7	152	23.0	388	58.8	660	100
Confidence in the economy	72	10.9	96	14.5	116	17.6	172	26.1	204	30.9	660	100
Expected income at retirement	96	14.5	76	11.5	160	24.2	196	29.7	132	20.0	660	100
Medical cost during old age	44	6.7	60	9.1	96	14.5	196	29.7	264	40.0	660	100
Cost of living in retirement	40	6.1	52	7.9	88	13.3	184	27.9	296	44.8	660	100
Inheritances from my family	360	54.5	88	13.3	48	7.3	64	9.7	100	15.2	660	100
n = 660												

Source: Field Survey (2022)

The result from the data shows that respondents are influenced to save for retirement based on different economic factors. These economic factors include having retirement income sufficiency, confidence in the economy, having decent standard of living during retirement, expected proportion of income to be received after retirement, medical cost and cost of living in retirement. For instance, while 44.8 percent of the respondents are, to a very large extent, concerned about their cost of living in retirement, 58.8 percent of the respondents are also, to a very large extent, concerned over standards of living in retirement. These economic concerns of respondents affect their ability to plan for retirement. Additionally, 40 percent of respondents are, to a very large extent, concerned about their medical cost in old age which serves as the basis for their decisions to plan for retirement.

These results indicate that consideration is given to a number of economic factors when healthcare workers plan their retirement. The results concur with the work by Zeka and Matchaba-Hove (2016) who showed that because people want to live a stress-free life in retirement, they take into account different economic factors when saving for retirement, and one of the major economic factors is retirement income sufficiency. In addition, the results are consistent with the work by Dan (2004) who revealed amongst others that, the confidence people have in an economy and the cost of living in retirement determines their propensity to save for retirement. On the other hand, the result also showed that healthcare workers were not influenced by inheritances from their family, contrary to the findings of Hershey *et al.* (2010) and Zwaan *et al.* (2018) that, expectation of leaving inheritances for family determined retirement planning.

Among the four subsamples, six economic factors influenced nurses and midwives to save for retirement and these were retirement income sufficiency, decency in standard of living during retirement, confidence in economy, expected proportion of income to be received after retirement, medical cost, and cost of living. Medical doctors were influenced by only four economic factors, which are retirement income sufficiency, decency in standard of living during retirement, medical cost and cost of living in retirement. On the other hand, pharmacists and laboratory technicians were influenced by all eight economic factors while physician assistants were influenced by seven of the economic factors apart from inheritances from family.

The life cycle and life course theories also suggest that the social and economic factors influencing retirement planning are underpinned by the individuals' financial attitude. Therefore, the mediating role of financial attitude dimensions in the relationship between socio-economic factors and retirement planning are discussed in the next section.

Mediating Role of Financial Attitude in the Relationship Between Socio-Economic Factors and Retirement Planning

In analysing the mediating role of financial attitude, three dimensions, namely, attitude toward retirement, financial risk tolerance and financial knowledge were used. To begin with, data were evaluated for convergent validity, discriminant validity and reliability by the measurement model. The Average Variance Extracted (AVE), Cronbach's Alpha, and Discriminant Validity (DV)

were presented. Prior to conducting the model fit test, indicators were employed in representing social and economic factors. Four of the indicators, validly fitted the model. Hence, those indicators were used for the latent variables.

The hypothesis was tested at a 5 percent level of significance. Wong (2013) and Hair *et al.* (2017) note that factor loadings must be more than 0.65, the AVE should be more than 0.5 and DV value of more than 0.7. The results in Table 31 showed that the AVE values (social factors = 0.613; economic factors = 0.787) and discriminant values (social factors = 0.783; economic factors = 0.887) which are the square root of AVE (Δ) are more than the required threshold. Based on the measurement model, the results from the data were suitable to be included in the structural model.

Table 31: Convergent Validity, Discriminant Validity and Reliability Test

Var	Item	Factor Loading	AVE (>0.5)	DV (>0.7)	Cronbach's Alpha
	CSF-4	0.97	0.613	0.783	0.823
Social	CSF-5	0.70			
Factors	CSF-7	0.71			
	CSF-6	0.72			
Economic	CEF-1	0.93			
Factors	CEF-6	0.85			
	CEF-10	0.80	0.787	0.887	0.772
	CEF-2	0.96			

Source: Field Survey (2022)

The Chi-square goodness of fit value of 692.325 with 47 degrees of freedom and a p-value of 0.000 was recorded. However, Kock (2019) notes that, a p-value of 0.000 shows a poor model fit. Therefore, to ascertain a better model fit, further tests were required as suggested by Hair *et al.* (2017) and these include the Goodness of Fit Index, Adjusted Goodness of Fit Index, Tucker-Lewis Index, Comparative Fit Index and Root Mean Square Error of Approximation. The tests generated a Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) of 0.991 and 0.953 respectively.

In addition, the Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) values were 0.914, 0.975 and 0.05 respectively, indicating that the model showed a good fit. Knock (2019) notes that, as a rule for a model fit, the GFI, AGFI, TLI, and CFI must be more than 0.9 and RMSEA must fall between 0 and 0.1. After identifying a good model fit, the result on the hypothesis or path model is presented in Table 32.

Table 32: Hypothesis Results on Mediating Role of Financial Attitude in the Relationship between Socio-Economic Factors and Retirement Planning

Hypo.	Path	Coefficient	S. E	C.R	P-Values	Conclusion
H1	Soc→ATR	0.072	0.039	1.840	0.066	Not supported
H2	Soc→FRT	0.231	0.061	3.822	0.000*	Supported
H3	Soc→FK	-0.099	0.062	-1.595	0.111	Not supported
H4	Eco→ FK	2.077	0.118	17.653	0.000*	Supported
H5	Eco→FRT	0.966	0.084	11.556	0.000*	Supported
H6	Eco→ATR	1.079	0.066	16.286	0.000*	Supported
H7	Soc→Ret	0.046	0.019	2.454	0.014*	Supported
H8	Eco→Ret	-0.223	0.072	-3.104	0.002*	Supported
H9	ATR→Ret	-0.018	0.025	-0.729	0.466	Not supported
H10	FRT→Ret	0.024	0.013	1.854	0.064	Not supported
H11	FK→ Ret	0.056	0.019	3.030	0.002*	Supported

Source: Field Survey (2022)

(ATR= Attitude toward retirement; FK= Financial Knowledge; FRT= Financial Risk Tolerance; Soc= Social; Eco= Economic; Ret = Retirement Planning)

From Table 32, among the three financial attitude dimensions, only financial knowledge mediated in the relationship between economic factors and retirement planning. This was evident in hypothesis four, where economic factors

significantly (H4: Coefficient = 2.077; C. R = 17.653; p-value = 0.000) affected the financial knowledge of respondents and in hypothesis 11 (H11: Coefficient = 0.056; C. R = 3.030; p-value = 0.002), financial knowledge also significantly affected retirement planning. This implies that respondents' financial knowledge is influenced by economic factors such as retirement income sufficiency, standard of living in retirement, confidence in the economy, medical costs, and cost of living in retirement. The findings support the underlying theoretical argument by Elder and Johnson (2003) and the conceptual framework that financial knowledge mediate in the relationship between economic factors and retirement planning.

The more economic factors improve, the more respondents become financially knowledgeable and the financial knowledge acquired by respondents then becomes the fulcrum of their ability to plan their retirement as suggested by Lusardi *et al.* (2018) in the life course and rational choice theories. As per the two theories, people who take into consideration their medical cost during old age, retirement income sufficiency, cost of living and standard of living, gain financial knowledge through their access and exposure to retirement information. According to Choi *et al.* (2016), the financial knowledge acquired reflect the behaviour and decisions in the choices they make on how their lives will be in retirement, which serves as a motivating tool in retirement planning.

Evidence from the study also shows that, without financial knowledge, economic factors will significantly affect retirement planning but, negatively (H8: Coefficient = -0.223; C. R= -3.104; p-value = 0.002). This demonstrates the influential role played by financial knowledge in the retirement plans of individuals

and that without it, when economic factors improve, healthcare workers will fail to plan their retirement. However, the finding contrasts the conceptual framework and theoretical argument that, improvement in economic factors motivates people to plan their retirement. The deviation is explained by the fact that as economic factors improve, people become confident in the economy, so instead of planning their retirement as elucidated by Lee and Kim (2016), they rather tend to rely more on state pensions than their personal savings for retirement.

Even though none of the financial attitude dimensions significantly mediated in the relationship between social factors and retirement planning, social factors directly affected the retirement planning of healthcare workers (H7: Coefficient = 0.046; C. R= 2.454; p-value = 0.014). It is an indication that, the relationship that healthcare workers have with their spouses or partners, friends, families and coworkers together assist individuals to plan for retirement. The analysis also provides support to the conceptual framework and life course theory that social factors affect respondents' ability to save for retirement. Respondents are able to save for their retirement as a result of their exposure to the social factors as evidenced by Jais and Asokumar (2019) that, social support or awareness received from friends, families and colleagues affected people's decision to save for retirement.

From Table 32, four out of the hypotheses were also rejected at the 5 percent alpha level. These included the non-significant effect of social factors on respondents' attitude toward retirement (H1: Coefficient = 0.072; C. R= 1.840; p-value = 0.066). Secondly, social factors (H3: Coefficient = -0.099; C. R= -1.595;

p-value = 0.111) did not also affect respondents' financial knowledge level. The third rejected hypothesis was that respondents' attitude toward retirement (H9: Coefficient = -0.018; C. R = -0.729; p-value = 0.466) did not affect their retirement planning. Financial risk tolerance (H10: Coefficient = 0.024; C. R = 1.854; p-value = 0.064) did not also support the retirement planning of respondents.

In effect, people's attitude toward retirement is not explained by social factors, neither is their level of financial knowledge determined by any social factors. Additionally, individuals' retirement plans are not affected by their attitude toward retirement and the level of financial risk they tolerate, contrary to theoretical arguments that financial attitude dimensions mediate in the way people plan their retirement. These gaps are explained by Elder and Johnson (2003) that although during the life course, people's lives are linked to social structures in society, they all have different experiences which account for variations in retirement plans. Diagrammatically, the interconnections of the mediated financial attitude dimensions in the relationship between socio-economic factors and retirement planning is illustrated in Figure 2.

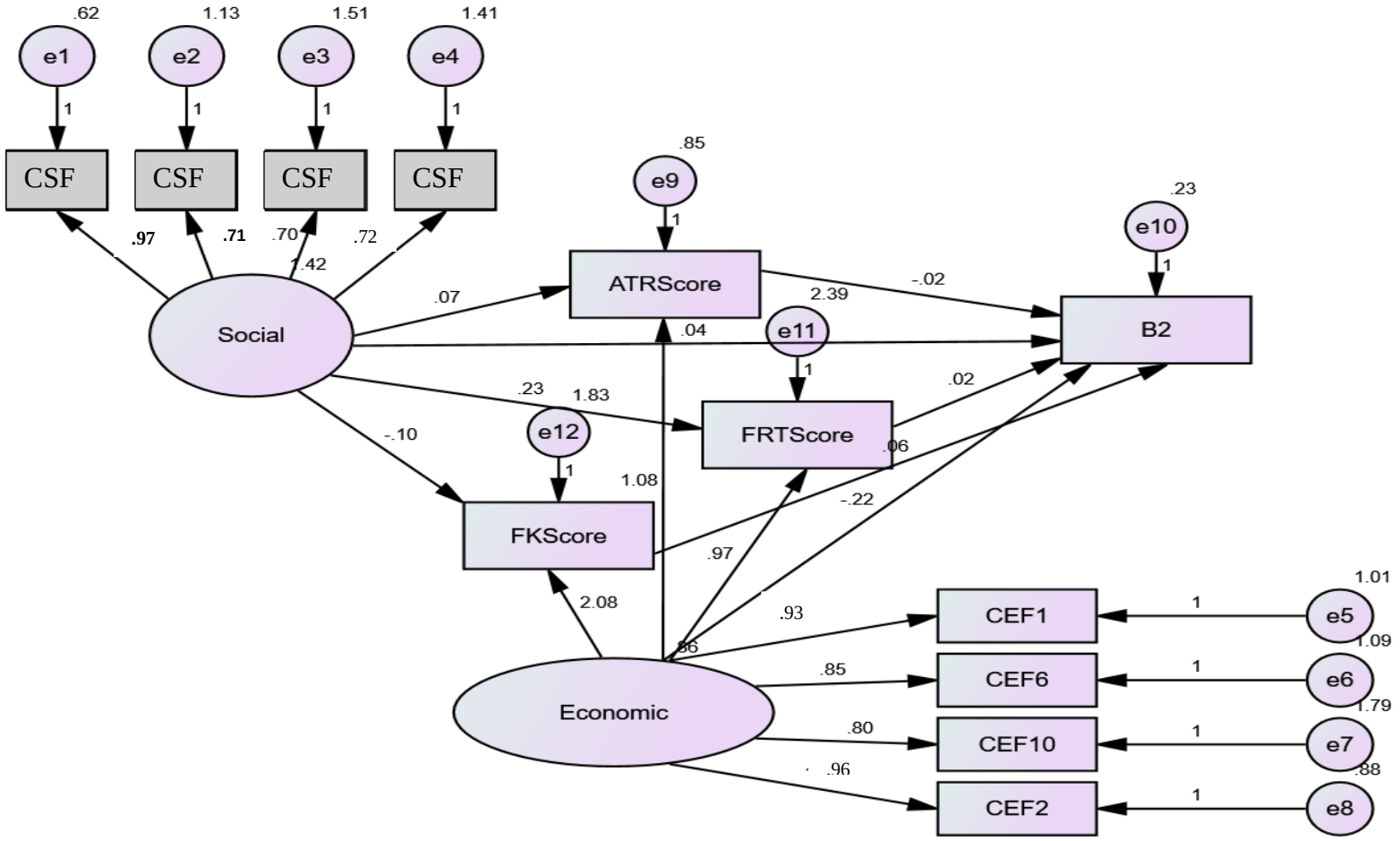

Figure 2: **Mediating Effects of Financial Attitude in the Relationship between Socio-Economic Factors and Retirement Planning of Healthcare Workers**

Source: Field Survey (2022)

CHAPTER EIGHT

MEDIATING ROLE OF FINANCIAL ATTITUDE IN THE RELATIONSHIP BETWEEN INSTITUTIONAL STRUCTURES AND RETIREMENT PLANNING

Introduction

The main objective of this chapter is to find answers to the institutional structures that influence healthcare workers in public hospitals as they plan their retirement following the introduction of the new pension law, which is the National Pensions Act 2008, Act 766. While the law promulgated in the year 2008 established institutions such as pension fund administrators, and pension fund managers, to oversee the efficient and effective operations of pensions, it also empowered the National Pensions Regulatory Authority as the regulator. Altschwager and Evans (2019) note that institutional structures are important because their non-availability constraints individual decisions on saving for retirement. The aim of institutional structures is to assist workers to save by providing safety for individual's pension contribution, favourable policies, flexibility in contribution, adequacy and sustainability of pension schemes.

The discussion raised under institutional structures is supported by the theoretical underpinning of the life course theory. Elder *et al.* (2003) show that, in order for workers to accumulate savings for the period of retirement, they require institutional structures, which according to Holzmann *et al*. (2008) and Lee and Kim (2016), inform individuals to save for retirement. Additionally, the mediating role of financial attitude dimensions, namely, attitude toward retirement, financial

risk tolerance and financial knowledge in the relationship between institutional structures and retirement planning was investigated. Koe and Ken (2018) and Lusardi (2019) note that the ability of people to develop financial attitudes is influenced by these institutional structures. This is based on the rational choice theory where Mulder (2019) and Lusardi (2019) observe that efficient institutional structures help people to develop the right financial attitude.

The issues in the chapter were analysed using mixed method approach, comprising descriptive statistics, structural equation modelling and thematic analysis. The descriptive statistics summarized the indexes or means of responses of healthcare workers. The data on efficiency, adequacy, sustainability, and transparency of institutional structures were mainly on interval scale. The analyses of data were based on a sample size of 660 and a statistical significance level of 0.05. Thematic analysis was performed on the qualitative data.

Efficiency of Institutional Structures

This part of the chapter presents the descriptive statistics on the efficiency of institutional structures that influences healthcare workers to save for retirement. Barr (2000) avers that efficiency of institutional structures in the form of policies introduced by the state without any form of restrictions or barriers to individuals, provides the basis for workers to save towards retirement. Similarly, Amaglobeli *et al.* (2019) argue that efficiency of pension policies encourages workers to participate in savings in pension schemes which helps them to accumulate wealth

and tend to guarantee their welfare during retirement. Table 33 presents the results of the efficiency of institutional structures.

Table 33: Descriptive Statistics on Efficiency of Institutional Structures

Efficiency of Institutional Structures	Min	Max	Mean	S. D
Flexibility in guidelines for pension contribution payment	1	5	3.667	1.243
Receipt of prompt feedback when I make contributions	1	5	3.752	1.163
My ability to pay pension contribution due to the increased number of contributory channels	1	5	3.533	1.205
The introduction of private pension schemes	1	5	3.430	1.267
Increase in awareness of pension contribution through public education	1	5	3.606	1.190
Setting pension contribution at a minimal amount	1	5	3.503	1.200
The ease in opening personal retirement account	1	5	3.679	1.222
Flexible eligibility criteria for opening personal retirement account	1	5	3.782	1.232
Non-payment of taxes on pension contributions	1	5	3.479	1.521
Flexibility in pension reforms	1	5	3.436	1.408
Overall Mean			3.586	0.918
n = 660				

Source: Field survey (2022)

A mean score of more than three on each item shows that efficiency in institutional structures plays an important role in the decisions of individuals to save for retirement. For instance, more of the sampled respondents (Mean= 3.667;

S. D =1.243) were influenced by flexible guidelines in their payment of pension contributions. These flexibilities mean that, workers do not have to be faced with systems or methods of payment that are cumbersome. As demonstrated by Bourguignon *et al.* (2005) and Uthira and Manohar's (2009), when pension schemes offer flexible guidelines for contribution payments and people are not burdened with so many procedures before making their contributions, they are more likely to save for retirement.

The respondents (Overall Mean = 3.5867; S. D = 0.9189) demonstrated that when there is non-payment of taxes on pension contributions, flexibility in pension contributions, increased number of contributory channels, and prompt receipt of feedback, they will be motivated to save for retirement. This is consistent with the proposition of the life course theory as argued by Curley *et al*. (2009) and Esteban and Natalia (2015) that, efficiency in institutional structures facilitate a level of confidence which motivates people to plan their retirement. Among the four subgroups, medical officers (Mean = 3.1020; S. D = 0.5554) were the least influenced by efficiency in institutional structures to save for retirement, whereas pharmacists and laboratory technicians (Mean= 3.8630; S. D= 0.9534) were more likely to be influenced by efficiency in institutional structures to save for retirement, followed directly by physician assistants.

Adequacy of Institutional Structures

Bodie and Mitchell (1996) state that the adequacy of institutional structures focuses on pension contributions that people are expected to retire on. According

to Douglas *et al.* (1998), if the welfare of retirees is to be improved, policies on pension contributions need to offer favourable products and good rate of return in order to guarantee adequate retirement income. Based on this background, it was necessary to determine the extent to which healthcare workers are encouraged by adequacy in institutional structures (Table 34) to save for retirement.

Table 34: Descriptive Statistics on Adequacy of Institutional Structures

Adequacy of Institutional Structures	Min	Max	Mean	S. D
My ability to make direct deposit to a pension account	1	5	3.636	1.323
I will save for retirement if the pension contribution I make will be able to cater for my retirement expenses	1	5	3.867	1.189
The amount of money I expect to retire on will motivate me to save for retirement	1	5	4.067	1.102
Different pension products available for me to subscribe will influence me to save for retirement	1	5	3.667	1.291
The adequate rate of return on pension investment will influence me to save for retirement.	1	5	3.945	1.152
Overall Mean			3.836	0.9696
n = 660				

Source: Field survey (2022)

The result revealed that more of the healthcare workers (Overall Mean 3.8364; S. D= 0.9696) will save for retirement if there are adequate institutional structures such as different pension products, adequate rate of return on pension investment, and direct deposits. This supports Yang and Devaney's (2011), World

Bank's (2012) and Wang *et al.*'s (2014) study that institutional structures that create adequacy of pension income in retirement encourage individuals to save for their retirement. Evidence from the study also showed that more of the healthcare workers (Mean= 4.067; S. D= 1.102) will be motivated to save for retirement based on the amount of money they expect to retire on. This means that the more people expect to retire on specific amount of money, the more they are likely to save for retirement, as suggested by Okumura and Usui (2014).

The results also showed that more of the respondents (Mean = 3.945; S. D= 1.152) will save for retirement, if there is adequate rate of return on pension investments. This implies that if individuals do not get adequate rate of return, they will not save for retirement since the goal of saving for retirement is to have an income level that is sufficient to cater for a person's needs during retirement. Therefore, as provided by Schreiner and Sherraden (2007), the more adequate rate of return is delivered by pension schemes, the more workers will be encouraged to save for retirement. With a mean of 4.1684 (Median = 4.2000; S. D= 0.9057; Skewness = -0.790), pharmacists and laboratory technicians were more influenced by adequacy of institutional structures to plan their retirement compared to all other groups. This was followed by physician assistants, and nurses and midwives, while the least influenced were medical officers (Mean= 3.3391; S. D= 0.7741).

Sustainability of Institutional Structures

The discussions on sustainability of institutional structures focused on internal structures of pension companies that seek to protect and guarantee the

security of pension contributions from risk and long-term adverse impact. Grimaldi (2018) argues that when pension funds are secured and used in a more sustainable manner, workers will be motivated to save and plan for retirement. Table 35 contains the results of sustainability in institutional structures.

Table 35: Descriptive Statistics on Sustainability of Institutional Structures

Sustainability of Institutional Structures	Min	Max	Mean	S. D
I am concerned with the safety and security of pension contributions	1	5	3.927	1.209
I am concerned with the long-term operational impact of pension companies on pension funds	1	5	3.963	1.165
I am concerned with the investments that pension funds are invested in	1	5	3.897	1.268
I am concerned with the high administrative charges on pension contributions	1	5	3.569	1.458
I am concerned with the information on loss of pension funds I hear in the media	1	5	3.897	1.356
Overall Mean			3.850	1.037
n = 660				

Source: Field survey (2022)

The study's finding was that, with an overall mean of 3.850 and a standard deviation of 1.037, more of the healthcare workers expect to save for retirement if there is sustainability of institutional structures such as safety and security of pension contributions, and positive long term operational impact of pension

companies on pension funds. These sustainability structures motivate individuals to save as espoused by the theoretical foundations of the life course theory. Researchers such as Settersten (2003), Wang *et al.* (2014) and Holzman *et al.* (2008) have also maintained that the more institutional structures are sustainable, the more likely it is that individuals will save for retirement. Lee and Kim (2016) denoted that such sustainability in pension structures provide security and inspire confidence in pension systems which motivate and encourage others to contribute or save towards retirement.

Evidence from the study also revealed that more of the respondents (Mean =3.963; S. D= 1.165) were concerned with the long-term operational impact of pension companies on their pension funds, followed by the safety and security of pension contributions (Mean= 3.927; S. D= 1.209). This demonstrates the concerns of workers on the safety of their pension contributions, which was established by Sherraden (2010) as one of the most influential factors that motivate individuals to save for retirement since any loss in pension contributions will guarantee old age poverty. The data also showed that pharmacists and laboratory technicians (Mean = 4.0632; S. D= 1.163) were influenced more by sustainability in institutional structures in saving for retirement, followed by physician assistants (Mean= 3.9905; S. D= 1.149). Medical officers were the least influenced (Mean = 3.2522; S. D= 0.885) by sustainability in institutional structures.

Transparency of Institutional Structures

The World Bank (2016) argues that the ability of workers to accumulate wealth through savings, leading to income security at retirement is dependent on institutional structures that ensure transparency. This means that institutional structures are required to be built on providing available information to pension contributors. Grimaldi (2018) shows that transparency influences individuals to save for retirement. Moreover, per the life course theory, when people have access to information about their investment or savings, they consider the institution to be transparent which impact their ability to save more or increase contribution rates. It is evident from Table 36 that, transparency in institutional structures plays influential roles in motivating healthcare workers to save for retirement.

The overall mean (Mean= 4.2051; S. D= 1.007) showed that transparency in institutional structures is an influential factor that can make healthcare workers save for retirement. It implies that when institutions become transparent with healthcare workers in managing their pension contributions, they will save for retirement. This is because transparency in delivering pension schemes offer contributors access to information which helps them make decisions towards their retirement plans. The study's finding supports the assertions by Lusardi (2019) and Mulder (2019) that when individuals have access to information, they are able to develop the right attitude aimed at planning for retirement. In the same vein, it provides an underlying support to the rational choice theory's proposition by Ogu (2013) that, individuals' ability to make decisions rests on their ability to access information.

Table 36: Descriptive Statistics on Transparency of Institutional Structures

Transparency of Institutional Structures	Min	Max	Mean	S. D
I expect to receive electronic alert anytime transactions occur in my pension account	1	5	4.224	1.152
I expect to receive periodic information on pension contribution returns	1	5	4.254	1.132
I expect to receive information on how pension contributions are invested	1	5	4.181	1.162
I expect to receive periodic information on audit of pension schemes	1	5	4.224	1.136
I expect to receive information on administrative charges of pension contributions	1	5	4.193	1.170
I expect annual general meetings to be conducted for all scheme contribution members	1	5	4.151	1.105
Overall Mean			4.2051	1.007
n = 660				

Source: Field survey (2022)

The importance of transparency influencing healthcare workers to save is also evident as all the items had means of more than four (Table 36). It implies that if pension companies alert contributors of transactions that occur on their accounts, send periodic information on their investment, and invite scheme members for annual general meetings, healthcare workers will be more likely to save for retirement. Analysis of the various subgroups also depicts that, with a mean of 4.4912 (Median= 5.000; S. D= 0.799; Skewness = -1.010), pharmacists and laboratory technicians are more influenced by transparency in institutional

structures to save for retirement. Nurses and midwives (Mean = 4.3039; S. D= 0.964) were the next category of people who considered transparency as influencing their ability to save for retirement. Medical doctors (Mean= 3.5580; S. D= 1.043) continued to be the least influenced by transparency to save for retirement.

Mediating Role of Financial Attitude in the Relationship between Institutional Structures and Retirement Planning

This section of the chapter focuses on the significance of the effect of institutional structures on retirement planning of healthcare workers. Additionally, the mediating role played by financial attitude dimensions in the relationship between institutional structures and retirement planning was investigated. The mediating financial attitude dimensions were attitude toward retirement, financial risk tolerance and financial knowledge. Data were first evaluated for convergent validity, discriminant validity and reliability by the measurement model. While the Average Variance Extracted (AVE) was used to measure convergent validity, Discriminant Validity (DV) provided evidence of whether constructs were highly related to each other. Cronbach's Alpha was also computed to measure the reliability of data.

At the five percent level of significance, the results showed that AVE values (Efficiency = 0.592; Transparency = 0.772; Adequacy = 0.536; Sustainability = 0.569) were above the 0.5 cut-off point. The discriminant values (Δ) (Efficiency = 0.770; Transparency = 0.878; Adequacy = 0.732; Sustainability = 0.786) were also

more than 0.7 as suggested by Hair *et al.* (2017). The convergent, discriminant validity and reliability tests (Table 37) are presented.

Table 37: Convergent Validity, Discriminant Validity and Reliability Test

Var	Item	Factor Loading	AVE (>0.5)	DV (>0.7)	Cronbach's Alpha
Efficiency	EPS-1	0.811	0.592	0.770	0.899
	EPS-2	0.849			
	EPS-3	0.813			
	EPS-4	0.690			
	EPS-5	0.671			
Transparency	TPS-5	0.902	0.772	0.878	0.942
	TPS-4	0.857			
	TPS-3	0.870			
	TPS-2	0.881			
	TPS-1	0.883			
Adequacy	APS-5	0.735	0.536	0.732	0.858
	APS-4	0.798			
	APS-3	0.714			
	APS-2	0.680			
	APS-1	0.731			
Sustainability	SPS-5	0.550	0.569	0.786	0.754
	SPS-4	0.670			
	SPS-3	0.775			
	SPS-2	0.899			
	SPS-1	0.829			

Source: Field survey (2022)

According to Hair *et al.* (2017) and Kock (2019), the p-value of a good model fit should be 0.5 and above. Where a model fit falls below the threshold,

other tests, such as the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) are required to ascertain a better fit. As a rule, the GFI, AGFI, TLI, and CFI must be more than 0.9 and RMSEA must fall between 0 and 0.1.

At the first instance, the results displayed a poor model fit with a Chi-square goodness of fit (CMIN) value of 3550.6, degrees of freedom (df) of 240 and a p-value of 0.000. As a result of this, the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) tests were subsequently performed. The results showed a Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) of 0.982 and 0.902 respectively. The generated values for Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) were 0.971, 0.914 and 0.014 respectively. It implies that there is good model fit, which leads to the presentation of the hypothesis or path model, as contained in Table 38.

Table 38: Hypothesis Results on Mediating Role of Financial Attitude in the Relationship between Institutional Structures and Retirement Planning

Hypo.	Path	Coefficient	S. E	C.R	P-Value	Conclusion
H12	Eff → ATR	-0.047	0.044	-1.064	0.287	Not supported
H13	Eff → FRT	0.171	0.068	2.507	0.012	Supported
H14	Eff → FK	0.337	0.073	4.604	0.000	Supported
H15	Tran → ATR	0.073	0.041	1.789	0.074	Not supported
H16	Tran → FRT	-0.220	0.063	-3.485	0.000	Supported
H17	Tran → FK	-0.233	0.067	-3.463	0.000	Supported
H18	Sus → ATR	0.208	0.060	3.449	0.000	Supported
H19	Sus → FRT	0.001	0.092	0.009	0.993	Not supported
H20	Sus → FK	0.904	0.113	8.029	0.000	Supported
H21	Ade → ATR	0.959	0.063	15.119	0.000	Supported
H22	Ade → FRT	0.961	0.089	10.782	0.000	Supported
H23	Ade → FK	1.186	0.098	12.150	0.000	Supported
H24	Sus → Ret	-0.073	0.029	-2.501	0.012	Supported
H25	Eff → Ret	-0.122	0.020	-6.004	0.000	Supported
H26	Tran → Ret	0.074	0.019	3.987	0.000	Supported
H27	Ade → Ret	0.218	0.039	5.558	0.000	Supported
H28	ATR → Ret	-0.111	0.019	-5.821	0.000	Supported
H29	FRT → Ret	0.013	0.012	1.158	0.247	Not supported
H30	FK → Ret	0.007	0.011	0.623	0.533	Not supported

Source: Field survey (2022): (ATR= Attitude toward retirement; FK= Financial Knowledge; FRT= Financial Risk Tolerance; Eff= Efficiency; Tran= Transparency; Sus= Sustainability; Ade= Adequacy; Ret = Retirement Planning)

Evidence showed that only attitude toward retirement significantly mediates the relationship between sustainability and retirement planning, and adequacy and retirement planning. To elaborate, a positive and significant effect was found

between sustainability and attitude toward retirement (H18: Coefficient = 0.208; C.R = 3.449; p-value = 0.000). In addition, a positive relationship was found between adequacy and attitude toward retirement (H21: Coefficient = 0.959; C.R = 15.119; p-value = 0.000). This implies that as pension schemes become more sustainable and adequate, people's attitude toward retirement improves as suggested by the rational choice theory and Ogu (2013) that, individuals are rational actors and they make decisions based on information. As a result, the availability of information on the adequacy and sustainability of pension schemes will encourage people to have positive attitudes toward retirement.

The improvement in attitude toward retirement is expected to motivate individuals to save for retirement as elucidated by the conceptual framework and Lee and Kim (2016) that, people's perspective of time about the future and clarity in retirement goals encourages them to save for retirement. However, a negative but significant relationship was established between attitude toward retirement and retirement planning (H28: Coefficient = -0.111; C.R = -5.821; p-value = 0.000). It implies that as people's attitude toward retirement improves, regardless of whether institutional structures are sustainable or adequate, they do not save for retirement which is in contrast to the life course theory. The reason may be that, as argued by Hershey *et al.* (2010), these individuals may see the retirement future as too distant, hence their reluctance to save for retirement.

Apart from attitude toward retirement which mediates only in the relationship between sustainability, adequacy and retirement planning, the other financial attitude dimensions (financial knowledge and financial risk tolerance) had

no mediating effect in the relationship between institutional structures (sustainability, efficiency, adequacy, and transparency) and retirement planning. For instance, in H13 (Coefficient = 0.171, C. R = 2.507, p-value = 0.012), even though the relationship between efficiency and financial risk tolerance is supported, in H19 (Coefficient = 0.013, C. R = 1.158, p-value = 0.247), financial risk tolerance did not relate significantly to retirement planning. Hence, financial risk tolerance does not mediate significantly in the relationship between efficiency and retirement planning. Similarly, sustainability related significantly to financial knowledge (H20) but, financial knowledge was not significant to retirement planning in H30.

These findings contradict the life course theory and conceptual framework that proposed all financial attitude dimensions to mediate in the relationship between institutional structures and retirement planning. It means that as people's financial knowledge improves and they become less financial risk tolerant, they will be unwilling to save for retirement. According to Agblobli (2011), many of such people take decisions to accumulate movable and immovable assets rather than save for retirement due to increasing structural failures such as inflation.

In the subsequent analysis, I discuss the direct relationship that institutional structures have on retirement planning. A negative relationship between sustainability and retirement planning was established (H24: Coefficient = -0.073; C. R= -2.501; p-value = 0.012). Additionally, efficiency was also found to be negatively related to retirement planning (H25: Coefficient = -0.122; C.R = -6.004; p-value = 0.000). These findings imply that as pension schemes become sustainable and efficient, healthcare workers also become unwilling to save for retirement.

The finding is in contrast of denotations by Gillion *et al.* (2000), Arkani and Gough (2007), Holzmann *et al.* and (2008) that, the more institutional structures become sustainable and efficient, the more people are likely to save. The study's finding also disagrees the life course theory and conceptual framework, but Dan (2004) explains that, the defiance occurs because, when people have low confidence in the economy, their propensity to save for retirement diminishes.

Transparency was found to positively determine retirement planning (H26: Coefficient = 0.074; C. R= 3.987; p-value = 0.000). It means that, for healthcare workers to plan their retirement, they need institutional structures to be transparent. The finding supports the life course theory, conceptual framework and Behrendt and Nguyen's (2018) study which showed that, people are able to save for retirement when pension systems are transparent.

A positive and statistically significant relationship was also established between adequacy and retirement planning (H27: Coefficient = 0.218; C. R= 5.558; p-value = 0.000). It means that saving for retirement is largely dependent on the adequacy of institutional structures and that the more adequate institutional structures are, the more people plan their retirement. The evidence supports the life course theory, conceptual framework and the work of Schreiner and Sherraden (2007), Mohd *et al.* (2010) and Okumura and Usui (2014) who demonstrated that adequate pension benefit expectations and rate of return on pension funds influenced individuals' saving decisions for retirement in Japan. In Figure 3, the mediating dimensions are presented to establish the interconnections.

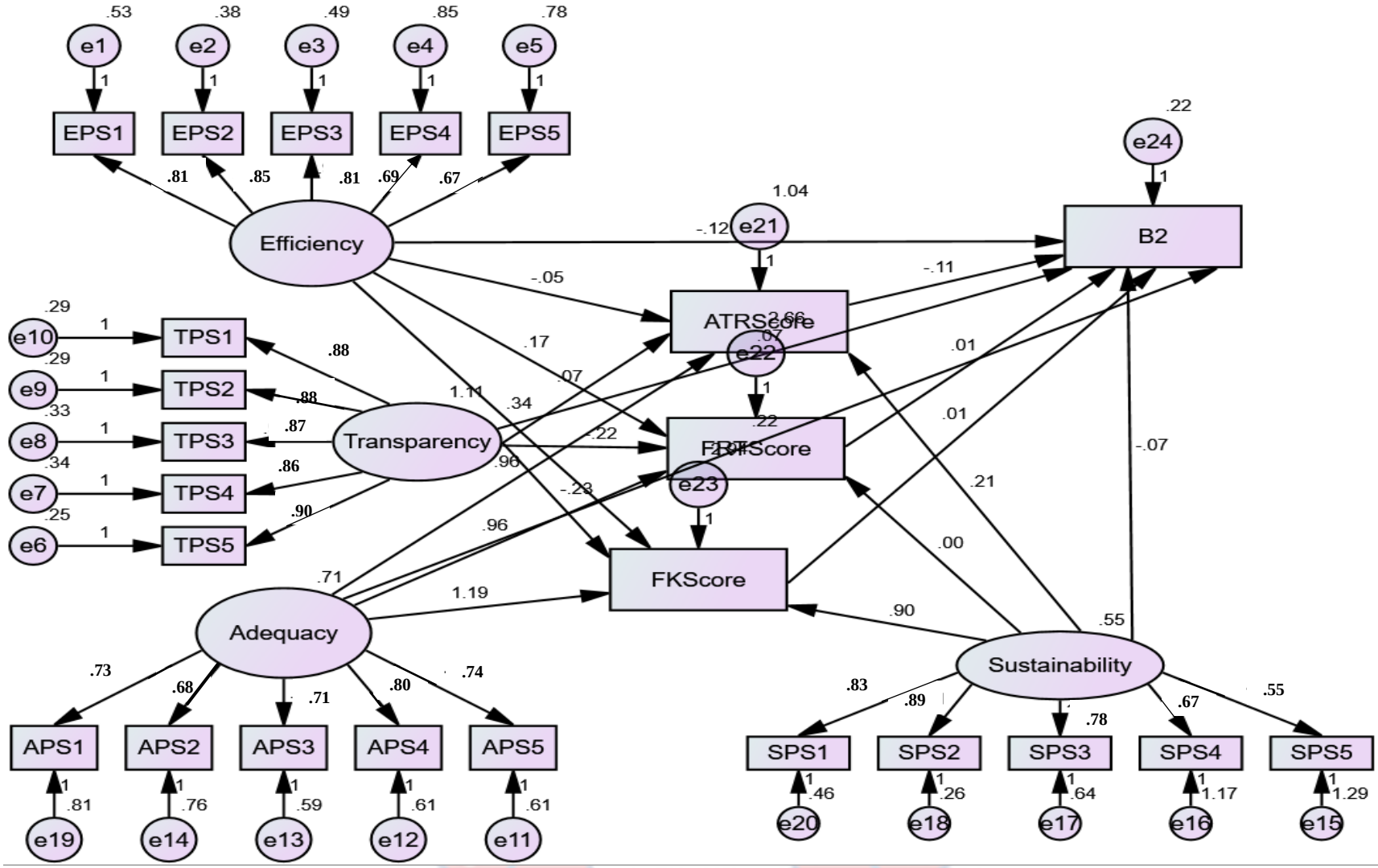

Figure 3: **Mediating Effects of Financial Attitude in the Relationship between Institutional Structures and Retirement Planning**

Source: Field survey (2022)

Evidence from the interviews conducted with fund managers, regulator, and pension administrators demonstrated that a number of measures have been put in place to ensure adequacy, efficiency, transparency and sustainability of institutional structures. These institutional structures are to encourage individuals toward saving for retirement. Some of the measures of efficiency put in place by the participants included frequent or regular public education on the new pension law, accessibility towards contributing to pensions through mobile money, regular statements of account delivered to contributors, use of online portals to access contributory statements and discipline in investment of pension funds. A pension administrator provided that:

> In order to encourage people to save for their retirement, we have now attached attractive life insurance packages to the private pension schemes. Our systems have been upgraded to encourage frequent dissemination of retirement information to contributors as well as providing flexible access to facilitate receipt of pension contributions. We also conduct virtual and in-person training programmes for our contributors to equip them with financial knowledge. However, the major challenge is that we are unable to reach out to people in rural areas and hinterlands (Pension Administrator, 7th June, 2022, On phone).

The response suggests that individual workers have easy access in paying their monthly contributions, are able to access information on their contributions,

receive the needed financial education and benefit from life insurance products that will serve as a cushion to their retirement plans. The implication is that healthcare workers have no or less barriers that restrain them from contributing towards a pension scheme. The removal of these barriers helps workers to save for their retirement as demonstrated by Grech (2015). These institutional structures provided by pension companies are expected to motivate workers to save for their retirement as maintained by the life course theory, where Elder *et al.* (2003) postulate that individuals' ability to save more towards retirement is affected by the sustainability, adequacy, efficiency and transparency of institutional structures.

In ascertaining the security, safety and discipline in investment, a key informant who is a fund manager explained that the Regulator has put in place standards and strict procedures for all fund managers of pension schemes in the market to follow. The regulator also supported the assertions of the fund manager whose comments are provided as follows:

> Any time monies hit the custodian account through new contributions or investment roll-overs; we are quickly notified by the bank, who in this case is the custodian. We then make reference to the Statement of Investment Policy (SIP) to assess the various investment guidelines and maximum percentage of portfolios so that we do not exceed the benchmark targets that the regulator and trustees have set for the schemes. Afterwards, we identify the portfolio which we have space to invest in and try to get a good yield for a particular investment. We then send a brief

> investment report to the Investment Management Committee (IMC) set by the Board of Trustees for them to either approve or disapprove of the investment based on their assessment. If the IMC disapproves of an investment, they have to give we the fund managers, reasons for their disapproval and then we go back to review new issuers and investment classes. We send new investment report briefs and when the IMC finally approves of an investment, they send an approval letter to the custodian to transfer the funds to the issuer. We make follow ups to get an investment certificate or ensure the trade is captured on the Central Securities Depository (CSD), then our job is done (Fund Manager, 9th June, 2022, East Legon- Office of Fund Manager).

These assertions were corroborated by the guidelines of scheme governance provided by the pension regulator on operations and management of pension schemes (On Appendix E and F). The responses from key informants provide an indication on the safety and security of pension contributions in the country. It can be deduced that pension funds in Ghana provide a sense of security and safety and prioritises the retiree. Thus, contributors may have a certain level of assurance of the security of their pension contributions. These structures put in place support the conceptual framework and underlying tenets of the life course theory as discussed by DePreter *et al.* (2013) and Quadagno (2014) that, individuals will save for

retirement where there are favourable institutional structures and policies that promote accumulation of wealth.

In addition, the availability of such sustainability structures present opportunities and motivations to individuals to enroll in pension schemes as suggested by Sherraden (2010) that, security and safety of funds motivate people to save towards retirement. Enquiries were also made on whether the banking and savings and loans crisis which took place between 2017 and 2018 had any security threats or implications on pension funds. The administrators cited that they were initially faced with some challenges but as time went on things normalised. For instance, they cited examples that some fund managers' licenses were revoked and so they had to look for new fund managers, and that took some time. Additionally, there was also reduction in interest rates of existing investments by takeover banks. An Administrator explained that:

> Initially, we had some of our funds locked up in fixed deposit investments with some banks that were taken over by the Bank of Ghana. The only challenge was that they went into new arrangement with us and told us they will pay on a 5year moratorium and at a reduced rate. We also had some mutual funds which are yet to be paid, but thankfully, these mutual fund investments are less than 1 percent of our total investment so they are not too substantial (Pension Fund Administrator, 7th June, 2022, Telephone).

These issues from the interviews of key informants in the Ghanaian pension industry emphasise the importance placed on the sustainability of pension schemes. The results provide evidence of the safety and security of pension contributions as well as the sustainability of pension funds. Similarly, the procedures put in place seek to curtail high percentage of investments in risky assets and charging of high and non-approved administrative expenses on pension funds. The finding is consistent with the life course theory which, according to DePreter, *et al.* (2013) and Gettings and Anderson (2018), explains individuals' decision towards planning for retirement due to the favourability and sustainability of institutional structures.

Wang *et al.* (2014) argue that transparency in pension administration helps in the decision making of saving for retirement. In unearthing the transparency of pension companies, the Regulator explained that:

> We inspect the education of members' register through our compliance team and ensure that frequently pension companies send out reports or statements to all contributing members. In fact, legally, every contributor is supposed to receive his or her statements once a year, but some of the administrators, because of competition in the market, have employed various means where contributors can access their statements technologically and at any time of the day. However, you must also know that some of the pension trustees are small and so they face challenges of cost to implement some of these expensive technological systems. However, those that don't have the financial muscles, we ensure that

at least, they send statements to contributors via email once in a year (Director of Programmes, NPRA, 6th June, 2022, Telephone).

To support the claims by the Director of Programmes at the National Pensions Regulatory Authority, pension administrators explained that they educate workers on the use of online portals to access their contributions and investment returns. In addition, it was also evident that some use different platforms such as text messaging, WhatsApp and digital technological platforms to send information to clients. The availability of information to pension contributors aids them in their decision making as established by Earl and Archibald (2012) that, when people have access to relevant information, they are able to make decisions on savings. The result is also consistent with the rational choice theory's proposition as asserted by Lusardi *et al.* (2017) and Koe and Ken (2018) and the conceptual framework that, transparency and access to information avail the individual, opportunity to weigh all possible risks, benefits and costs towards saving for retirement.

Another strategy towards ensuring transparency by corporate trustees was the organisation of annual general meetings, where they brought together fund managers, administrators, auditors of the scheme and custodians to present their reports to all contributors as a sign of ensuring confidence and trust. It was also revealed from the study's finding that sometimes, trustees go to the various institutions of corporate contributors to conduct training programmes towards enlightening them and encourage them to save for retirement. Some of the training programmes involve providing information on how to increase contributions, how

to plan for retirement, benefits of contributing to a scheme, and when to make withdrawals. The assertions made was supported by an interview held with the pension regulator where the level of transparency experienced were narrated as follows:

> I must say, some pension administrators are doing very well. In fact, I was invited to join one of the numerous annual general meetings organised for some scheme members. Over there, they showed how members can make contributions. Members were informed of the SMS alert system and using mobile apps to check statements. The pension fund managers and auditors also gave a presentation to members on how their funds were being used. It is a good thing the auditors themselves were part of the meeting. By this way contributors feel safe and secured and they realise the level of transparency within the structure (6th June, 2022, On telephone).

These remarks are core to the life course theory as observed by Hutchinson (2007) and Kohli (2007) who identified that, individual lives are planned and interdependent within a social environment that provide favourable institutional structures. In support of the conceptual framework, these institutional structures help workers to understand planning for retirement and increase their ability to save and improve their quality of life during retirement. As argued by Quadagno (2014),

the institutional structures of transparency through education and other measures provide the basis for individuals to learn from each other, which shapes their attitude in the decision they make toward retirement. In effect, such institutional structures, guarantee the social and economic security in retirement and motivate savings over the life course as identified by Gettings and Anderson (2018).

Additionally, the adequacy of pension contributions which deal with the rate of return on pension funds, and variability of pension products for contributors to invest in was not left out of the discussions held with key informants in the pension industry. Industry players, who are fund managers identified that they mostly make an average rate of return between 100 to 150 basis point above the one-year treasury bill rates and the finding was supported by secondary data from the National Pensions Regulatory Authority's (2021) report. The reasons given by fund managers on the low rate of return were that, because investment in asset classes given by the regulator has a large portion of about 70 percent in government of Ghana instruments, they are unable to invest largely in other areas which may be riskier but produce good returns. The assertion by the fund managers was re-affirmed by pension administrators and the regulator during the interview.

In the same vein, a number of private pension trustees have come up with different pension products for workers in the formal and informal sectors to subscribe although they all have similar investment guidelines. This, according to pension administrators, has led to increase in enrolment of contributors and fund size, which help them to get attractive interest rates on the financial market. The Regulator re-emphasised what pension administrators had early on revealed that:

> Currently, Pension Trustees have created private pension schemes which they sell out to contributors from all areas and institutions including the informal sector. For instance, United Pension Trust Ltd has "My Own Pensions," Petra Trust also has "Savings Booster" and Pentrust Ltd also has "She Retires, and Shepherd Trust." All the other Trustees also have theirs. These are all to create options for individuals so that they can retire with extra income back-ups. I must say that they all operate within the same guidelines set by the regulator (Director of Programmes, NPRA, 6th June 2022, On Telephone).

The results indicate that individual contributors will now have different options to save for their retirement. In addition, workers will receive adequate returns which serves as a boost to their income and the amount they expect to retire on during retirement. According to Valverde (2018), this is an indication of efficient institutional structures that aid retirement planning of workers. Although, the rates of return in pension investments may not be adequate, there are future prospects which continue to motivate and assist individuals to plan their retirement, especially with the offer of different pension products in the market. The private pension schemes offered by pension companies may provide assistance to individuals to make rational choices to save for their retirement, which may translate into minimising old age poverty, as established by the conceptual framework.

However, the average marginal rates of return on pension investments which is between 100 to 150 basis point above one-year treasury bill rate are likely to erode the financial gains of contributors especially in periods where inflation tend to be higher than the benchmark interest rates. This may likely threaten the welfare of retirees as observed by Douglas *et al.* (1998) who argued that, if poverty and welfare of retirees are to be improved in old age, then favourable rates of return must be made on pension contributions.

CHAPTER NINE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The summary of the research process, major findings and conclusions based on the key findings are presented in this chapter. Recommendations towards improving retirement planning of healthcare workers are also provided based on the key findings and conclusions. The implementation of these recommendations would ensure that old age poverty amongst healthcare workers is minimized, so that workers become economically secured during retirement. The chapter finally concludes by addressing the contributions of this research to knowledge and offering suggestions for future studies.

Summary

The study investigated the influence of life course activities on retirement planning of healthcare workers in public hospitals in the Accra Metropolis, Ghana. Four research objectives guided the study and they focused on retirement planning of healthcare workers, financial attitudes and retirement planning, and the mediating role of financial attitudes in the relationship between socio-economic factors and retirement planning. The fourth objective also analysed the mediating effect of financial attitudes in the relationship between institutional structures and retirement planning.

Mixed method research was used in the study with a bias towards the quantitative approach. The study used the cross-sectional survey and exploratory

designs. A sample size of 885 healthcare workers was chosen using the stratified and simple random techniques, but 660 of them responded. Five key informants from the pension industry were purposively sampled and they comprised, the Director of Programmes at the National Pension Regulatory Authority, two Pension Fund Managers, and two Pension Scheme Administrators. Data were collected through questionnaires and interview guides.

While financial attitude dimensions such as attitudes towards retirement, financial risk tolerance, and financial knowledge were employed, the dimensions of institutional structures were efficiency, sustainability, transparency and adequacy. These dimensions were measured on ratio/interval scale. Socio-economic variables such as age, income, type of profession, marital status, education and sex were measured on nominal and ordinal scale. Descriptive statistical tools were mainly employed to describe the data, while Chi-square test of independence was used to ascertain associations between socio-economic variables and retirement planning.

Logistic regression analysis was performed to examine the likelihood or otherwise of healthcare workers ability to plan their retirement given their financial attitude. Structural Equation Modelling (SEM) was used to determine the mediating role of financial knowledge, financial risk tolerance and attitude towards retirement in the relationship between socio-economic factors and retirement planning. SEM was also used to identify the mediating role of financial knowledge, financial risk tolerance and attitude towards retirement in the relationship between institutional structures and retirement planning. Thematic analysis of the interview transcripts

was done to buttress the quantitative analysis on the effect of institutional structures on retirement planning.

The first research objective examined the retirement planning of healthcare workers over the life course and the major findings are as follows:

i. While 75.1% (496) of healthcare workers have thought of having individual retirement account, only 55.6% (276) of them currently have individual retirement accounts.

ii. Out of the 276 healthcare workers who had individual retirement accounts, 45 percent of them contributed monthly, while 5.5% withdraw from their accounts at least once in a year.

iii. Out of the healthcare workers who had individual retirement accounts, 65.2% held third-tier and personal pension account compared to other savings and investment accounts which are not under the regulation of the NPRA.

iv. Generally, apart from few respondents having individual retirement accounts, healthcare workers (Mean= 3.5455; S. D= 0.8477) have engaged in life course activities that propel them to plan their retirement in other areas of their lives.

v. Healthcare workers (Mean = 3.8242; S. D= 1.153) have made decisions to put in place plans to accumulate different financial assets, and plan to meet their healthcare needs (Mean= 3.8000; S. D= 1.1460), but these plans are not linked to their statutory retirement age.

vi. Pharmacists and laboratory technicians (Mean= 3.9569; S. D= 0.9590) have made adequate preparations over the life course in planning their retirement compared to their counterparts in the other profession. Medical doctors (Mean= 3.1858; S. D= 0.6588) least engaged in planning their retirement over the life course.

vii. Healthcare workers who planned their retirement obtained retirement information from retirement planning advisors, internet, and private pension trustees. However, pharmacists, laboratory technicians and physician assistants obtained retirement information from additional sources through friends, families, private pension trustees and seminars.

The second research objective examined how financial attitude of healthcare workers affected their retirement planning. The major findings are as follows:

i. Respondents (Mean= 4.680; S. D= 1.3444) displayed good future time perspective of their retirement plans. Pharmacists and laboratory technicians (Mean= 5.1429; S. D= 1.3761) had better future time perspective of retirement compared to the other healthcare professionals. Relatively, fewer medical officers (Mean= 4.1304; S. D= 0.9073) had better future time perspective of their retirement plans.

ii. Apart from the respondents (Mean= 3.5394; S. D= 2.3618) failing to discuss their retirement plans with friends, they also had clear goals about their retirement. Pharmacists and laboratory technicians (Mean=

5.2782; S. D= 1.4293) displayed better clarity in retirement goals, but nurses and midwives (Mean= 4.2591; S. D= 1.5876) showed the least clarity in retirement goals.

iii. The sampled respondents were risk averse (Mean= 3.6055; S. D= 2.0543) in tolerating financial risks. As a result of this, respondents (Mean= 4.2606; S. D= 2.1811) preferred short term investments. Among the various profession, pharmacists and laboratory technicians (Mean= 4.3000; S. D= 1.5055) took higher financial risks.

iv. Although the sampled respondents (Mean= 4.3606; S. D= 1.6422) displayed good financial knowledge, most of them had less financial knowledge about calculating their retirement benefits and understanding investment options for pension schemes. Physician assistants (Mean= 5.0429; S. D= 1.6826) were more financially knowledgeable than all the other subgroups, followed by pharmacists and laboratory technicians. Medical officers had the least financial knowledge.

v. Attitudes towards retirement (β = -0.265, Wald = 8.097, p-value = 0.004), showed significant inverse relationship with retirement planning. It implies that healthcare workers who have good attitudes towards retirement (such as having clarity in future time perspective and setting clear retirement goals), are reluctant in planning their retirement.

vi. Financial risk tolerance (β = 0.022, Wald = 0.175, p- value = 0.676) and financial knowledge (β = 0.040, Wald = 0.672, p-value = 0.412) did not statistically affect retirement planning of healthcare workers.

The third research objective investigated the mediating role of financial attitude in the relationship between socio-economic factors and retirement planning of healthcare workers. The key findings were as follows:

i. None of the three financial attitude dimensions (financial knowledge, financial risk tolerance and attitude toward retirement) mediated significantly in the relationship between social factors and retirement planning. However, social factors (Coefficient = 0.046; C. R= 2.454; p-values= 0.014) directly affected how healthcare workers plan their retirement. This implies that the relationship that healthcare workers have with their spouses/partners, friends, families and coworkers collectively affect their ability to plan for retirement.

ii. Only financial knowledge (Coefficient = 2.077; C. R= 17.653; p-value = 0.000) mediated significantly and positively in the relationship between economic factors and retirement planning (Coefficient= 0.056; C. R= 3.030; p-value = 0.002). However, economic factors alone (Coefficient = -0.223; C. R = -3.104; p-values = 0.002) exhibited a significant inverse relationship with retirement planning. It means that, the more economic factors improve, the more unwilling healthcare workers plan their retirement.

iii. A statistically significant association was found between sex and retirement planning (χ^2 = 11.666; d. f =1; p-value = 0.01; Phi = 0.133). It implies that females were more likely than males to plan for their retirement. Marital status and retirement planning (χ^2 = 5.190; d. f =1; p-value = 0.023; Phi = 0.089) were also significantly associated. This means that respondents who are single plan for their retirement than those married.

iv. A statistically significant association exist between education and retirement planning (χ^2 = 19.530; d. f =2; p-value = 0.000; Cramer's V = 0.173). It indicates that as individual's attain higher education, they plan their retirement as compared to those with lower educational level. The type of healthcare profession and retirement planning (χ^2 = 8.483; d. f =3; p-value = 0.037; Cramer's V = 0.113) showed that, nurses and midwives were more likely than other healthcare professions to plan for their retirement.

v. Age and retirement planning were found to be statistically associated (χ^2 = 37.497; d. f =3; p-value = 0.000; Cramer's V = 0.253), indicating that respondents plan for their retirement as they age. Income and retirement planning of healthcare workers were also significantly associated (χ^2 = 33.864; d. f =5; p-value = 0.000; Cramer's V = 0.302), implying that those who earn high incomes plan their retirement compared to those who earn less.

vi. The two main social factors that affected how people plan their retirement were the life experiences of older retirees and relationship with spouses/partners. However, nurses and midwives were influenced to plan their retirement due to their relationship with spouses/partners, the society they come from, the institution they work with and life experiences of older retirees.

vii. In planning for retirement, the major economic factors that affected all the healthcare workers were retirement income sufficiency, confidence in the economy, decent standard of living in retirement, expected proportion of income to be received after retirement, medical cost and cost of living in retirement. Healthcare workers were not influenced by the quality of pension schemes and inheritances from their family.

Objective four investigated the mediating role of financial attitude in the relationship between institutional structures and retirement planning of healthcare workers. The main findings were as follows:

i. None of the financial attitude dimensions significantly mediated the relationship between efficiency and retirement planning. However, efficiency of institutional structures (Coefficient = -0.122; C. R= -6.004; p-value = 0.000) was inversely and significantly related to retirement planning. It implies that the more institutional structures become efficient, the more healthcare workers are unwilling to plan their retirement.

ii. Only attitude toward retirement significantly mediated the relationship between sustainability and retirement planning. Sustainability (Coefficient = -0.073; C. R= -2.501; p-value = 0.012) negatively affected how respondents plan their retirement.

iii. None of the financial attitude dimensions significantly mediated the relationship between transparency and retirement planning. However, transparency (Coefficient = 0.074; C. R= 3.987; p-value = 0.000) affected positively how respondents plan their retirement planning.

iv. Only attitude toward retirement mediated the relationship between adequacy and retirement planning. Adequacy (Coefficient = 0.218; C. R= 5.558; p-value = 0.000) also affected positively how respondents plan for their retirement.

v. Frequent public education on the new pension law, accessibility in contributing pensions through the use of mobile money, and use of online portals to access contributory statements encourage individuals to save for retirement.

vi. The use of mobile money technology has been adopted by some pension fund administrators to make it easy for contributors to save for retirement, while also using mobile applications and online portals to help contributors access their contributory statements.

vii. As a way of ensuring the safety and security of pension contributions, pension fund managers adhere to strict investment guidelines and procedures provided by the National Pensions Regulatory Authority.

viii. In ensuring transparency, few pension fund administrators conduct annual general meetings by bringing together scheme auditors, pension fund custodians, pension fund managers and the regulator.

Conclusions

Fewer number of healthcare workers had retirement plans and even among them, withdrawals were made from their individual retirement accounts. The withdrawals will deplete their account and affect the accumulation of wealth for retirement. Over the life course, healthcare workers expect to accumulate wealth and plan their retirement by obtaining retirement information from the media, personal research, internet and retirement planning advisors. However, these retirement plans are not linked to their statutory retirement age and this may affect the ability of healthcare workers to accumulate wealth for retirement, leading to old age poverty, especially among medical doctors who engaged less in planning for retirement.

Healthcare workers displayed good financial attitudes by having financial knowledge, clarity in retirement goals, good future time perspective and were risk averse. Even though financial risk tolerance did not affect how healthcare workers plan their retirement, pharmacists and laboratory technicians who took on higher financial risks are susceptible to loss of accumulated wealth, which may threaten their quality of lives in retirement. In addition, the inability of workers to calculate retirement benefits and understand investment options poses a challenge in their pursuit towards accumulating wealth for retirement.

Many healthcare workers plan their retirement because of the low confidence they have in the economy, their expectation of having retirement income sufficiency, and their quest to live decently in retirement. However, as these economic factors get better, workers become unwilling to plan their retirement, which has negative repercussions on their lives in retirement. In order to correct this anomaly, financial knowledge was found as a key element in creating a good link between workers' understanding of economic factors and how it motivates them to plan their retirement. Additionally, respondents were affected by several socio-economic factors in planning for their retirement. Among these factors were that, those who have high education and earned higher incomes planned their retirement much more and the single, females and older people also planned their retirement compared to their counterparts.

Attitude towards retirement was cited to affect adequacy and retirement planning. This means that healthcare workers who have clarity in retirement goals and good future time perspective of retirement are able to understand the adequacy of institutional structures, and this motivates them to plan their retirement. Furthermore, when institutional structures are transparent and adequate, healthcare workers consider planning their retirement. This is because, workers' access to contributory statements and different channels of paying their pension contributions such as mobile money and other technological platforms helps them to gain confidence in the institutional structures. The effectiveness of these institutional structures encourages those who do not save for retirement to do so,

hence creating the opportunities for everyone to accumulate wealth needed to meet the basic needs of life and guaranteeing economic security during retirement.

Generally, over the life course of healthcare workers, they are able to plan their retirement by engaging socially with older retirees, friends, families and other individuals. Moreover, the provision of private pension schemes and effective institutional structures through security, safety, transparency and adequacy has served as the foundation for people to save for retirement during their working lives. Therefore, with the right financial attitude, favourable economic factors and the building of good social relations, healthcare workers will be able to build and accumulate wealth for the period of retirement, which is expected to guarantee their quality of life.

Recommendations

Based on the key findings and conclusions of the study, recommendations to each target group are provided. With respect to medical practitioners:

1. They should have retirement plans and make adequate preparations over the life course by having individual retirement accounts that will help them to accumulate wealth and avoid old age poverty in retirement. To achieve this goal, the Ghana Medical Association in collaboration with pension service providers should organise retirement planning programmes for medical practitioners targeted at helping them plan over the life course.
2. Medical officers should engage with the Ghana Medical Association to embark on financial literacy programmes that will educate and equip them

with financial knowledge. These financial literacy programmes can be done in collaboration with private pension trustees, retirement planning advisors, while exploring other means such as the internet, and seminars.

Pharmacists and laboratory technicians are also expected to:

1. Have individual retirement accounts in order to accumulate wealth over the life course to meet their retirement expenditure. In order to prepare members and urge them to plan their retirement, the Pharmaceutical Society of Ghana and the Ghana Association of Medical Laboratory Scientists should launch educational campaigns on the need to save for retirement. These campaigns can be done using mediums such as group meetings, media and the internet.
2. Minimise their level of financial risks in order to avoid losses on the wealth they accumulate for retirement. In achieving this, financial risk training programmes, on being risk averse, when planning for retirement, should be organised by the Pharmaceutical Society of Ghana and Ghana Association of Medical Laboratory Scientists to the benefit of members and equip them with more financial attitude skill. The training programmes can be done in collaboration with other pension fund industry players.

For nurses and midwives, I recommend that:

1. They should have clarity in retirement goals in order to have consistent and clear vision of how life will be for them in retirement, since this is important

to retirement planning. This can be achieved by the Ghana Registered Nurses and Midwives Association organising training programmes on retirement goal clarity streamlined to equip employees with skills needed to make informed decision in retirement planning.

2. They should be adequately equipped with financial knowledge, targeted at helping them plan their retirement. Acquiring financial knowledge by nurses and midwives during the organisation of educational programmes by the Ghana Registered Nurses and Midwives Association will expose them to effectively plan their retirement.

Physician Assistants should:

1. Prioritise opening of individual retirement accounts due to the few numbers having retirement plans. In collaboration with the Ghana Physician Assistants Association, the relevance of saving for retirement should be encouraged among members using personal research, and other mediums such as internet, media and group meetings.
2. Acquire financial knowledge in order to make good retirement plans aimed at accumulating wealth and achieving income security in retirement. This is because of the relevance of financial knowledge in planning retirement. The educational campaigns on financial knowledge can be done by the Ghana Physician Assistants Association in collaboration with other stakeholders in the pension industry via the media, internet and group meetings.

3. Engage more socially with older retirees when planning their retirement. This will help them to learn more from older retirees and how they planned their retirement during their working lives. During the organisation of programmes by the Ghana Physician Assistants Association, older retirees can be invited to share their life experiences and that will serve as motivation to other workers in planning their retirement.

The National Pensions Regulatory Authority should make conscious efforts to:

1. Implement strategies that ensure that every pension fund administrator operating within the pension market become more transparent in the disclosure of investment information to all members who save for their retirement. This can be achieved by ensuring that pension fund administrators use digital technological platforms such as WhatsApp, online portals, mobile applications and emails to disseminate retirement information to scheme members in order to gain confidence in the managers of the pension schemes.
2. Implement strategies that monitor regular activities of pension fund managers in their adherence to investment guidelines that guarantee security and safety of pension funds. This is because the more pension contributions are safe and secured, the more individuals are encouraged to plan their retirement. The monitoring can be done using electronic real time systems that track all pension fund securities.

3. Collaborate with pension fund administrators and pension fund managers in considering appropriate ways of revising the asset allocations that gives room for higher returns by reducing the high concentration of pension fund investments in government of Ghana securities so that contributors can be guaranteed adequate rate of return, while also being protected from pension fund losses. This is necessary because the proportion of income that workers expect to receive after retirement is an influential economic factor that motivates them to save for retirement.
4. Collaborate with healthcare workers to conduct frequent public education on how to calculate retirement benefits and understanding investment options. The education can be done using the media, internet and private pension trustees, and to also expose workers to other benefits within the pensions law so that people can take advantage of it in their retirement planning. The public education can also be done in collaboration with pension fund administrators and the various associations of healthcare workers.
5. Implement measures that discourage healthcare workers from withdrawing from their individual retirement accounts in order to avoid savings being depleted before the period of retirement. This is because any depletion of the accounts will erode the gains made in accumulating wealth and this may not help in meeting the basic needs of life and guaranteeing income security during retirement.

Contribution to Knowledge

The evidence found in this study disagrees with the rational choice theory that, individuals who tolerate financial risk, have adequate financial knowledge and develop positive attitudes towards retirement make rational choices by planning their retirement. This is because, rather than focus on financial attitude, it fails to consider people's consumption against their savings and institutional structural failures that impede individuals' ability to plan their retirement. Further knowledge is contributed by the study as it adds to the life course theory that, people's social relations with their spouses or partners and the life experiences of older retirees help them in planning towards their retirement.

Furthermore, previous studies have examined independently how socio-economic factors and institutional structures affect retirement planning without linking financial attitude dimensions. Meanwhile, developing financial attitude is one of the life course activities that helps individuals to plan their retirement. This study filled the gap by taking a holistic view and combining social, economic, financial attitude and institutional structures. It was clear that financial knowledge allowed individuals to understand economic factors which makes them more willing to plan their retirement.

Finally, the roles played by key stakeholders such as regulators, pension fund managers and pension fund administrators, in ensuring effective institutional structures which lay the foundation for people to plan their retirement was missing in literature. This study contributed to knowledge by examining from the perspectives of these stakeholders, how institutional structures improve retirement

plans of healthcare workers. In addition, the study contributed to knowledge as it finds that the transparency, security, safety and adequate rate of return on pension investment encourages more healthcare workers to save for retirement.

Suggestions for Further Studies

Based on the research findings, conclusions and limitations of the study, it is suggested that future research on the measure of retirement planning should be expanded to include how much wealth people have accumulated in their individual retirement account. Further studies should also focus on how workers plan their retirement in other areas of their lives such as acquiring immovable and movable properties and operating personal businesses.

In addition, further studies should have a separation of data on both pharmacists and laboratory technicians, in order to have independent analysis on their retirement planning so as to have targeted recommendations for them. Geographically, similar studies should be conducted in other regions to understand how other healthcare workers plan their retirement. Different cohorts of healthcare workers should also form the basis of future research. Lastly, qualitative methodology is suggested to be included in further studies to obtain qualitative information on how healthcare workers plan their retirement.

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APPENDIX 'A'

QUESTIONNAIRE FOR HEALTHCARE WORKERS

Dear Sir/Madam

INTRODUCTION AND CONSENT

I am a student of the School for Development Studies, University of Cape Coast. I am conducting research on ***"Life Course and Retirement Planning of Healthcare Workers in Public Hospitals in Accra, Ghana."*** The purpose of the questionnaire is to solicit information concerning activities that occur during the life course which shape health sector workers' abilities to plan their retirement and other related issues on retirement plans. I would be very pleased if you could assist me in undertaken this exercise by providing relevant responses to the questions that follow. Please be assured that all responses provided shall be treated confidential and used for the purposes of research only. Hopefully, the responses to the questionnaire will only take less than fifty minutes to complete. May I also inform you that your participation in answering the questionnaire is voluntary and should there be any question or clarification on the questions, kindly let me know. Thank you in advance for your cooperation.

NB: Please tick the appropriate box for all responses

Respondent agrees to answer questionnaire:

Yes [ ] (Proceed with responses to questionnaire) No [ ] (Do not go further)

Signature: …….. Date: ……

Serial Number	Person administering the questionnaire

SECTION A: SOCIO-ECONOMIC BACKGROUND

A1. What is your sex? (1) Male [ ] (2) Female [ ]

A2. Kindly indicate your age as at your last birthday…….. (yrs)

A3. What is your marital status? (1) Single [ ] (2) Married [ ]

A4. What is your highest level of education?

(1) Diploma (2) Degree [ ] (3) Postgraduate [ ]

A5. Kindly indicate your net monthly income …….

A6. How many dependents do you have? …….

A7. Which hospital do you work at? ……..

A8. What type of health professional are you?

(a) Registered Nurse/Midwife [ ] (b) Medical Officer (c) Pharmacists/Laboratory Technician [ ] (d) Physician Assistant [ ]

SECTION B: RETIREMENT PLANNING

B1. Have you ever thought of having a personal/individual retirement account?

(a) Yes [ ] (b) No [ ] If No, why? …….

B2. Do you have a personal/individual retirement account in place now?

(a) Yes [ ] (b) No [ ] If yes, answer B3-B7. **If No, skip to B8**

B3. Which personal/individual retirement account do you have?

(a) 3rd Tier Account [ ] (b) Personal Pension Account [ ] (c) Investment Account purposely for retirement [ ] (d) Savings Account purposely for retirement [ ]

B4. What percentage of your net monthly income do you save into your personal/individual retirement account? ……

B5. How often do you increase the contributions in your personal/individual retirement account?

(a) Every week [ ] (b) Bi-weekly [ ] (c) Monthly [ ] (d) Quarterly [ ]

(e) Semi-Annually [ ] (f) Annually [ ] (g) Other specify……..

B6. Do you make withdrawals from your personal retirement account (s)?

(a) Yes [ ] (b) No [ ] **If No, skip to Question B8**

B7. If yes, how often do you withdraw from the contributions in your personal/individual retirement account?

(a) Every week [ ] (b) Bi-weekly [ ] (c) Monthly [ ] (d) quarterly [ ]
(e) Semi-Annually [ ] (f) Annually [ ] (g) Other specify……..

B8. Apart from the statutory retirement income sources (Tier 1 and Tier 2), what other sources of retirement income have you thought of when you retire? ***NB: You can tick as many as it applies***

(a) Tier 3 [ ] (b) Personal Pension Scheme [ ] (c) Investment Account purposely for retirement [ ] (d) Savings Account purposely for investment [ ] (e) Income from properties [ ] (f) Income from Business [ ] (g) I have no idea [ ] (h) Other specify…….

The following statements relate to the provisions you are making towards your retirement over the life course. Using a scale of 1-5, with 1 showing 'least agreement' to 5 being 'strong agreement' indicate the extent to which you agree with each item by ticking the appropriate box.

Life Course Activities	**1**	**2**	**3**	**4**	**5**
B9. I am aware of different retirement planning schemes					
B10. I expect to accumulate substantial savings for retirement					
B11. I have made a conscious effort to save for retirement					
B12. Based on how I plan to live my life in retirement, I know how much I will need in retirement					

B13. I have put in place retirement plans for my old age					
B14. I have put in place plans to retire by the statutory retirement age					
B16. I have made decisions to put in place plans to accumulate different financial assets					
B17. I have made decisions to accumulate specific amounts of resources at specific ages over my working life					
B18. I have put in place plans to guard against uncertainties in life					

The following statement relate to the sources of information for your retirement planning. Using a scale of 1-5, with 1 showing 'not at all' to 5 being 'very large extent,' indicate the extent to which you agree with each item by ticking the appropriate or required box.

Sources of Retirement Information	1	2	3	4	5
CSF7. I research retirement information myself					
CSF8. I get retirement information from my retirement planning advisors					
CSF9. I get retirement information from the media					
CSF10. My employers provide corporate flyers with retirement information					
CSF11. My employers provide annual retirement planning seminars					

CSF12. I get retirement information from the internet					
CSF 13. I get retirement information through my discussions with friends					
CSF14. I get retirement information by regularly discussing my retirement plans with my family					
CSF15. I get retirement information from private pension trustees					

SECTION C: FINANCIAL ATTITUDES AND RETIREMENT PLANNING

The following statements relate to your financial attitude, in terms of attitude toward retirement planning, financial risk tolerance and financial knowledge.

Di: ATTITUDES TOWARDS RETIREMENT

The following statements relate to your attitudes toward retirement, specifically on future time perspective and retirement goal clarity. Using a scale of 1-7, where 1 show 'least agreement' to 7, 'strong agreement', kindly indicate the extent to which you agree with each item by ticking the appropriate box.

Future Time Perspective	**1**	**2**	**3**	**4**	**5**	**6**	**7**
FTP1. I follow advice to save for my future							
FTP2. I enjoy thinking about how I will live years from now in the future							
FTP3. The future is certain and clear to me							
FTP4. I live on a day-to-day basis							
FTP5. I enjoy living for the moment and not knowing what tomorrow will bring							

FTP6. I have the sense that time is running out for me							
FTP7. There are limited possibilities in my life							
FTP8. As I get older, I begin to experience time as limited							
Retirement Goal Clarity							
RGC1. I have clear set goals about my retirement							
RGC2. I have thought a great deal about the quality of life in retirement							
RGC3. I have set specific goals for how much I will need to save for retirement							
RGC4. I have set specific goals for how much I will spend in retirement							
RGC5. I have a clear vision of how life will be for me in retirement							
RGC6. I have discussed my retirement plans with my spouse							
RGC7. I have discussed my retirement plans with a friend or significant other							

Dii. FINANCIAL RISK TOLERANCE LEVEL

The following statements relate to your tolerance for financial risk. Using a scale of 1-7, where 1 show 'least agreement' to 7, showing 'strong agreement,' kindly

indicate the extent to which you agree with each item by ticking the appropriate box.

Financial Risk Tolerance Level	1	2	3	4	5	6	7
FRT1. I am willing to risk financial losses to maximise my returns							
FRT2. I easily undertake risky investments							
FRT3. I prefer investments that have higher returns even though they are riskier							
FRT4. So long as the returns are high, I do not mind if the investment scheme is unregulated or unregistered							
FRT5. I am willing to engage in risky investment to ensure financial stability in retirement							
FRT6. Protecting my investments is more important to me than high returns							
FRT7. I will never choose the safest investment when planning for retirement							
FRT8. Long term investments make me nervous							
FRT9. I prefer short term investments							
FRT10. I am willing to withstand some fluctuations in my investment							

Diii: FINANCIAL KNOWLEDGE TOWARDS RETIREMENT PLANNING

The following statements relate to your financial attitude in terms of financial knowledge and how they generally help to shape your retirement. Using a scale of

1-7, where 1 show 'least agreement' to 7, showing 'strong agreement,' kindly indicate the extent to which you agree with each item by ticking the appropriate box.

Financial Knowledge	**1**	**2**	**3**	**4**	**5**	**6**	**7**
FK1. I am very knowledgeable on how interest rate is computed							
FK2. I am conversant with pension schemes							
FK3. I am very confident in my ability to do retirement planning							
FK4. When I have need for financial services, I know exactly where to obtain information on what to do							
FK5. I am knowledgeable about how social security works							
FK6. I am knowledgeable about how private investment works							
FK7. I review and compare investment performance							
FK8. I have knowledge about calculations of benefits due on retirement							
FK9. I understand investment options for pension schemes							
FK10. I know how to plan my personal finances to secure my retirement well							

SECTION D: SOCIAL AND ECONOMIC FACTORS

The following statement relate to the social factors or forces that influences your retirement planning. Using a scale of 1-5, with 1 showing 'not at all' to 5 being 'very large extent,' indicate the extent of frequency to which you agree with each item by ticking the appropriate or required box.

CSF: Social Factors	1	2	3	4	5
CSF1. My coworkers influence me to plan my retirement					
CSF2. My spouse/partner encourages me to plan my retirement					
CSF3. My family members influence me to plan my retirement					
CSF4. My friends encourage me to plan my retirement					
CSF5. The institution I work for encourages me to plan my retirement					
CSF6. The society I come from motivates me to plan my retirement					
CSF7. The life experiences of other retirees serve as a motivation for me to plan my retirement					

The following statement relate to the economic factors or forces that influences your retirement planning. Using a scale of 1-5, with 1 showing 'not at all' to 5 being 'very large extent,' indicate the extent to which you agree with each item by ticking the appropriate or required box.

CEF: Economic Factors	1	2	3	4	5
CEF1. I am encouraged by the quality of pension schemes to plan my retirement					
CEF2. I want to have retirement income sufficiency					
CEF3. I am motivated by keeping my standard of living in retirement					
CEF4. The confidence in the economy encourages me to plan my retirement					
CEF5. I am motivated by the expected proportion of retirement income					
CEF6. The medical cost in retirement encourages me to save for my retirement					
CEF7. The cost of living in retirement encourages me to save for retirement					
CEF8. The inheritance I expect to leave for my family motivates me to save for retirement					

SECTION E: INSTITUTIONAL STRUCTURES AND RETIREMENT PLANNING

The following statements relate to institutional structures of pension schemes, in terms of efficiency, adequacy, sustainability and transparency of pension schemes.

Ei: Efficiency of Pension Schemes

The following statements relate to your level of agreement on the efficiency of pension schemes. Using a scale of 1-5, where 1 show 'least agreement' to 5, 'strong agreement', kindly indicate the extent to which you agree with each item by ticking the appropriate box.

Efficiency of Pension Scheme	**1**	**2**	**3**	**4**	**5**
EPS1. There is flexibility in guidelines for pension contribution payment					
EPS2. There is receipt of prompt feedback when I make contributions					
EPS3. I am able to pay my pension contribution due to the increased number of contributory channels					
EPS4. I am able to save for retirement because of the introduction of private pension schemes					
EPS5. There is increase in awareness of pension contribution through public education					
EPS6. I am able to contribute any minimal amount for my pension					
EPS7. There is ease in opening personal retirement account					
EPS8. The eligibility criteria for opening personal retirement account is flexible					
EPS9. The non-payment of taxes on pension contributions motivates me to save for retirement					

EPS10. Flexibility in pension reforms motivates me to join private pension schemes					

Eii: Adequacy of Pension Schemes

The following statements relate to your level of agreement on the adequacy of pension schemes. Using a scale of 1-5, where 1 show 'least agreement' to 5, 'strong agreement', kindly indicate the extent to which you agree with each item by ticking the appropriate box.

Adequacy of Pension Schemes	**1**	**2**	**3**	**4**	**5**
APS1. I am able to make direct deposit to my pension account					
APS2. The contribution I make to my pension is enough					
APS3. The amount of money I expect to retire on is adequate for me					
APS4. There are favourable pension products for me to sign on					
APS5. I receive adequate rate of return on my pension investment					

Eiii: Sustainability of Pension Schemes

The following statements relate to your level of agreement on the sustainability of pension schemes. Using a scale of 1-5, where 1 show 'least agreement' to 5, 'strong

agreement', kindly indicate the extent to which you agree with each item by ticking the appropriate box.

Sustainability of Pension Schemes	**1**	**2**	**3**	**4**	**5**
SPS1. I am confident that my pension contribution is safe and secured					
SPS2. I do not expect to lose my pension contribution					
SPS3. I am scared of the long-term operational impact of pension companies on my pension contribution					
SPS4. I am very much concerned with the investment class that my contribution is invested in					
SPS5. The high administrative charges on my pension contribution worries me					

Eiv: Transparency of Pension Schemes

The following statements relate to your level of agreement on the transparency of pension schemes. Using a scale of 1-5, where 1 show 'least agreement' to 5, 'strong agreement', kindly indicate the extent to which you agree with each item by ticking the appropriate box.

Transparency of Pension Schemes	**1**	**2**	**3**	**4**	**5**
TPS1. I get an electronic alert anytime I pay my pension contributions					
TPS2. I receive periodic information on my pension returns					

TPS3. I receive information on how my pension contributions are invested					
TPS4. I receive periodic information on the audit of the pension scheme I have enrolled on.					
TPS5. I receive information on the administrative charges of my pension					
TPS6. I expect annual general meetings to be conducted for all scheme contribution members					

Thank You for your time and patience!!!

APPENDIX 'B'

INTERVIEW GUIDE FOR KEY INFORMANTS (PENSION FUND MANAGERS)

Date of Interview: ……

Time of Interview: ……

Location: ……..

SECTION A: INTRODUCTION

1. Introduces self and explain the purpose of the interview. Given assurances of confidentiality, candid answers and ensuring cordial atmosphere.
2. Introduce recorder and ask interviewees to introduce self. Probe to get age, position in organisation, educational level, and marital status

SECTION B: INSTITUTIONAL STRUCTURES

3. What processes do you go through before making a pension fund investment? Probe
4. How are regulatory structures helping in managing pension funds? Probe
5. How do the regulatory structures support or inhibit the management of pension funds? Probe
6. With your years of experience, have there been any loss of pension fund? Probe (due to operational failure or economic failure)
7. How are the rates on pension fund investments?
8. How do you see the future and security of pension funds? Probe

APPENDIX 'C'

INTERVIEW GUIDE FOR KEY INFORMANTS (PENSION FUND ADMINISTRATORS)

Date of Interview: ……

Time of Interview: ……

Location: ……..

SECTION A: INTRODUCTION

1. Introduces self and explain the purpose of the interview. Given assurances of confidentiality, candid answers and ensuring cordial atmosphere.
2. Introduce recorder and ask interviewees to introduce self. Probe to get age, position in organisation, educational level, and marital status

SECTION B: INSTITUTIONAL STRUCTURES

1. How do contributors get information on their pension investments? Probe to get details on statement, investment returns, administrative charges etc.
2. How safe are contributors' investment? Probe to get all the layers ensuring security and safety of pension funds
3. What are you doing to ensure that a lot of people or contributors get on board to plan their retirement through saving in a pension scheme? Probe further
4. How do you determine the adequacy of retirement or pension benefit to contributors? Probe further

5. Is there anything that serves as a support or barrier to people contributing to pension schemes?
6. What processes do you go through before making a pension fund investment? Probe
7. How are regulatory structures helping in managing pension funds? Probe
8. How do the regulatory structures support or inhibit the management of pension funds? Probe
9. With your years of experience, have there been any loss of pension fund? Probe (due to operational failure or economic failure)
10. What are the rates on pension fund investments?
11. How do you see the future and security of pension funds? Probe

APPENDIX 'D'

INTERVIEW GUIDE FOR KEY INFORMANT (PENSION FUND REGULATOR)

Date of Interview: ……

Time of Interview: ……

Location: ……..

SECTION A: INTRODUCTION

1. Introduces self and explain the purpose of the interview. Given assurances of confidentiality, candid answers and ensuring cordial atmosphere.
2. Introduce recorder and ask interviewees to introduce self. Probe to get age, position/rank in organisation, educational level, and marital status

SECTION B: INSTITUTIONAL STRUCTURES

3. What is the pension regulator doing to guarantee the security and safety of pension contributions? Probe further
4. Have there been previous losses to any pension fund? Probe to ascertain the effect of banking and investment companies collapse on pension funds
5. How are you ensuring that people retire with adequate security? Probe to ascertain the investment asset classes and rate of returns on investment
6. What are you doing to ensure efficiency in delivery of pension services?
7. What are you doing to enlarge the scope of contributors to pension schemes?

8. How are you ensuring the role of transparency in the management of pension funds? Probe further to get transparency (publication of pension accounts, contributory statements, rates of return, charges or administrative cost etc.) to contributors.
9. Does the regulator have any sustainability and security plans for protecting pension contributions? Probe further to get information on investment reports and style of fund managers, administrators and board of trustees
10. Is there anything, you would like to tell me concerning interventions on all pension schemes?

Thank you for your time!!!

APPENDIX 'E'

GUIDELINES ON INVESTMENT BENCHMARKS

APPENDIX

INVESTMENT ASSET ALLOCATION

ASSET CLASS	MAXIMUM ALLOCATION PER AUM	PERCENTAGE OF AUM PER ISSUE
Government of Ghana Securities: a) Treasury Bills b) Treasury Notes c) Treasury Bonds (Including Infrastructure Bonds & Eurobonds) d) Green Bonds *	75%	N/A
Local Government and Statutory Agency Securities: a) Municipal and Local Government Bonds/Bills b) Statutory Agency Bonds/Bills c) Cocoa Bonds/Bills	25%	N/A
Corporate Debt Securities: a) Bonds b) Debentures c) Notes d) Redeemable Cumulative Preference Shares e) Mortgage/Asset Backed Securities f) Commercial Paper g) Green Bonds*	35%	Max. 5%
Listed Ordinary Shares / Non–Redeemable Preference Shares **NB:** Max. of 10% of Market Capitalization of any one corporate entity.	20%	Max. 5%
Bank Securities: a) Fixed Deposits b) Negotiable Certificates of Deposits (NCDs) c) Bankers Acceptances d) Repurchase Agreements (Repos) **NB:** Max. of 10% of the shareholders' funds of the Issuer Bank.	35%	Max. 5%
Collective Investment Schemes (CIS): a) Unit Trusts b) Mutual Funds c) Exchange Traded Funds	15%	Max. 5%
Alternative Investments: a) Real Estate Investment Trusts/Funds b) Private Equity Funds c) External Investment in securities d) Others	25%	External Investment shall not exceed a maximum of 5%.

REMARKS

1. A Scheme shall not hold more than ten percent (10%) of the value of any Issue.
2. A Scheme shall not have more than ten percent (10%) of its total AUM in the securities issued by a single issuer other than that permitted for government and other public securities.
3. For Government of Ghana Securities designated as Green Bonds, up to five percent (5%) of the Scheme AUM invested in such Bonds shall not count towards the attainment of the maximum seventy-five percent (75%) allocation.
4. For Corporate Debt Securities designated as Green Bonds, up to five percent (5%) of the Scheme AUM invested in such Bonds shall not count towards the attainment of the maximum thirty-five percent (35%) allocation.

APPENDIX 'F'

INVESTMENT ASSET ALLOCATIONS

Figure 15: Trend Analysis of Private Pension Funds AUM (GHS) from 2016 to 2021

By the end of 2021, total AUM was GHS 28 billion compared to GHS 22 billion recorded in 2020 representing an increase of 27%.

4.3.2 Asset Allocation of funds.

The NPRA has Guidelines on Investment that spell out where Private Pension Funds may be invested. For 2021, almost 84% of Private Pension Funds were held in Government of Ghana Securities as shown in figure 16.

Figure 16: Asset Allocation of Private Pension Funds 2020-2021 (%).

APPENDIX 'G'

IRB ETHICAL CLEARANCE LETTER

UNIVERSITY OF CAPE COAST
INSTITUTIONAL REVIEW BOARD SECRETARIAT
TEL: 0558093143 / 0508878309
E-MAIL: irb@ucc.edu.gh
OUR REF: UCC/IRB/A/2016/1377
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

23RD MAY, 2022

Ms. Jennifred Maurice Adjei
Department of Integrated Development Studies
University of Cape Coast

Dear Ms. Adjei,

ETHICAL CLEARANCE – ID (UCCIRB/CHLS/2022/02)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research **Life Course and Retirement Planning of Healthcare Workers in Public Hospitals in the Accra Metropolis.** This approval is valid from 23rd May, 2022 to 22nd May, 2023. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu, PhD
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST