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Awareness, Stress, and Income as Contributors in Medicare Part B Late Enrollment

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MPA, American Military University, 2015

BS, University of Washington, 2009

Dissertation Submitted in Partial Fulfillment

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Abstract

Medicare Part B is one of the federal health insurance programs available to senior citizens in the United States. Unlike Medicare Part A, Part B enrollment is not automatic, and those missing their initial enrollment period are assessed a 10% or more penalty in addition to their monthly premium rate for the rest of their lives. This problematic enrollment policy has impacted senior citizens who have missed Part B enrollment windows, creating for them an added financial burden when many are transitioning to fixed incomes. Guided by social construction theory and using a nonprobability, convenience sampling approach, the likelihood coefficient values associated with Medicare Part B enrollee awareness, stress, and income of 112 residents of a suburban city in a northeastern state who were 65 years and older were examined. Sequential *Forward*: *LR* methodology yielded a significant, negative (b = -1.21, Wald $x^2(1) = 7.56$, OR = .298, p = .006, CI [.126, .707]) and a significant, positive (b = 2.16, Wald $x^2(1) = 6.29$, OR = 8.678, p = .012, CI [1.60, 46.99]) likelihood of predicting Medicare Part B late enrollment penalties for awareness and stress; income was not a significant model predictor. Participants who reported higher stress levels were 8.7 times more likely to be classified in the Medicare Part B late enrollment penalty than those reporting lower stress. Participants who were aware of enrollment needs were 3.4 times more likely to have no late enrollment penalties than those who were unaware. Positive social change centers on increasing Medicare Part B consumer awareness, reducing stress of enrollment deadlines, and providing information to federal policy makers to simplify enrollment policies to reduce or end late enrollment penalties.

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Dedication

I dedicate my proposal to my late father, Lekh Bahadur Dhaurali, who always reminded me to work hard and become a medical doctor to serve my community. Twenty years ago he passed, and I was not able to accomplish what he had set out for me because of poverty and inability to afford materials. Today, I am here accomplishing that goal he set for me all those years ago. I am not becoming a medical doctor, like he said; however, he was a middle school teacher and a community leader, which inspired me to complete my Doctor of Philosophy in Public Policy and Administration to promote positive social change around the world. Thank you, Dad. Thank you to each of my daughters, Amishika Dhaurali (14) and Shubhecchha Dhaurali (16), for their unwavering encouragement, incredible moral support, unconditional love, and valuable technical assistance. Both daughters have been with me through this entire process: not just my proposal, but hardships in my life. Without their inspiration and motivation, I would not have had the encouragement and stability I needed to complete my Doctor of Philosophy in Public Policy and Administration. Thank you, Ami and Subu, for all that you do for me, even though I do not say it enough.

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Chapter 1: Introduction to the Study

Introduction

Medicare is the American federal healthcare insurance program enacted under Title XVIII of the Social Security Act for the elderly population and some qualified disabled individuals under 65 years old. The Centers for Medicare and Medicaid Services (CMS) administrate; oversee entitlement, coverage, financing, and beneficiaries' payment liabilities; process Medicare claims; and manage payments to providers (CMS, 2017). Medicare Part A is also called premium free hospital insurance. Medicare Part B (Part B) is known as a supplementary medical insurance plan. Medicare Part C refers to the Medicare Advantage Plan. Medicare Part D is the Medicare prescription drug coverage plan. Each type of Medicare plan can have a different type of premium. The enrollment in each type of plan varies based on individuals' circumstances, such as age, income, disability, and state of primary residency. In this study, I only focused on Part B (Part B) beneficiaries. The healthcare price and insurance premiums for Part B enrollees correlate with their annual income levels; although income levels may vary, Part B is supplemental medical insurance. Part B covers medical services and supplies including clinical research, ambulance services, durable medical equipment, inpatient and outpatient mental health coverage, and some hospitalizations (Klees, Wolfe, & Curtis, 2016).

I explored Part B enrollees' awareness, consumer selection stress, and income. The findings of this study could help beneficiaries avoid late enrollment consequences and penalties. Consumer selection stress, awareness of Part B enrollment deadlines, and

enrollee income could all be predictors of having to pay a late enrollment penalty (LEP). Some Medicare beneficiaries automatically receive Medicare Parts A and B, while other Medicare beneficiaries do not. If these enrollees miss the enrollment deadline, they may be charged a late enrollment charge. I explored why some Part B beneficiaries were charged the LEP, whereas others were not.

This chapter includes 12 subsections: problem statement, purpose of the study, research questions and hypotheses, theoretical framework, nature of the study, background to the study, definitions, assumptions, limitations, scope and delimitations, significance of the study, and a chapter summary.

Background to the Study

In 2015, there were an estimated 148 million Americans enrolled in Medicare Parts A, B, and D with paid benefits paid totaling $638.7 billion (Klees et al., 2016). The application procedure for Medicare beneficiaries requires quality of information, effect of the regulations of the Secretary of HHS related to Title 42 (and in subtitle A, Title 45, Code of Federal Regulations), and implementation of the CMS (Harrington, Stockton, & Hooper, 2014; Social Security Administration [SSA], 2016). The enrollment opening and closing deadlines, application procedures, and enrollment guidelines need to be clearly understandable to senior citizens. In 2015, there were an estimated 51 million people enrolled in Medicare in the United States, who paid $275.8 billion for Part B (Klees et al., 2016). The normal monthly premium rate for retirees increased from $104.90 in 2014 to $159.30 in 2016; the final monthly premium could be higher if beneficiaries did not enroll when they were first eligible (CMS, 2017). The LEP varies based on Part B

beneficiaries' income, personal health behaviors, and the number of years by which they missed the initial open enrollment period (IEP). The premium rate varies per the Part B enrollee's annual income status, such as living on a fixed income, and whether they have a permanent disability or chronic illness.

The reduction of information regarding LEP policies has been a pitfall for some Part B enrollees. Currently, the CMS publishes a notification system on their website, which allows beneficiaries to check their own enrollment status (Sanders, 2014). The problem is that many senior citizens lack Internet services and may not be capable of enrolling online or may lack skills to do so even if Internet access is available. Sanders (2014) argued that the most common pitfalls connected with delayed Part B enrollment can be categorized into the navigation and coordination of Part B benefit rules, enrollees' understanding of different types of enrollment periods, and the affordability of LEPs. If Part B beneficiaries missed the deadline and enrolled late in Part B, then the monthly premium rate of Part B would rise by 10% for each full 12-month period by which they missed their IEPs, except for some qualified individuals (CMS, 2016; Klees et al., 2016).

I evaluated Part B beneficiaries' understanding of the application procedure and late enrollment policies in a select group of Part B enrollees in a suburban city in a northeastern state. Medicare needs to improve in terms of the quality of governmental health policy, outcome, program design, and helping with enrollees' decision-making skills and knowledge of enrollment procedures (Burrell, 2015; Wagner, 2012). Education for beneficiaries, the implications of Medicare insurance selection stress on beneficiaries'

behaviors, and their annual income can serve as interventions to the late payment penalty classification.

Problem Statement

The CMS has identified some Part B beneficiaries who missed enrolling during an IEP and consequently face the burden of the LEP. Other Part B beneficiaries do not need to pay LEPs because of automatic enrollment through the CMS, permanent disability, continuous employment, or because they are railroad retirees (CMS, 2017; Klees, Wolfe, & Curtis, 2015; Sanders, 2014). The late enrollment consequences mandated that Part B enrollees who missed the IEP must pay an additional 10% of the LEP when they enrolled during the general enrollment period (GEP; Sanders, 2014). They then need to pay an additional late fee for each year they that missed their IEP; this charge remains part of their monthly premium for the rest of their lives (Sanders, 2014). The late enrollment charge has resulted in both additional financial stress and a coverage gap for Part B enrollees. A better understanding of Medicare enrollees' decision-making factors could be helpful in enabling them to select the right insurance coverage and protecting them from financial risks (Sanders, 2014; Trivedi, 2015).

Currently, the CMS has numerous Part B enrollment policies and guidelines to assist beneficiaries in correctly completing the necessary enrollment documents. These processes may be contributing to confusion about and misunderstanding of the registration deadline requirements. Sanders (2014) explained that, in 2012, confusion about the enrollment application process resulted in approximately 740,000 individuals missing enrollment deadlines, thus subjecting them to paying a lifetime of Part B LEPs.

Extant studies have addressed Medicare Parts A, C, and D, with a focus on Medicare choices, the protection of financial risks, administrative costs, and the maximized value of Medicare spending (Birnbaum, 2012; Dingell, 2015; Lavertu, Walters, & Weimer, 2012; Quadagno, 2014; Sullivan, 2013; Trivedi, 2015). Prior studies have not centered exclusively on Part B, especially concerning LEP problems. In my study, I addressed this research gap by exploring the reason why some enrollees must pay the Part B LEP, while others do not. My study provides information to policymakers so that they may better understand these problems and help seniors make informed decisions pertaining to Part B enrollment policies and guidelines.

Purpose of the Study

The purpose of my quantitative study was to explore Part B enrollment deadline awareness, consumer selection stress, and Part B beneficiary income (independent variables – IV) as predictors related to the likelihood of late enrollment penalties (dependent variable – DV) incurred by senior citizens residing in a suburban city of a northeastern state. I chose city as the location for my study for the ease and cost-effectiveness of my data collection processes.

Research Question and Hypotheses

In this study, I examined one research question and two associated hypotheses.

Research Question (RQ): What is the likelihood that Part B enrollment awareness, consumer selection stress, and enrollee income levels predict Part B enrollee late penalty classification?

$H_0$1: Part B enrollment awareness, consumer selection stress, and enrollee income levels do not significantly increase the likelihood of enrollee late penalty classification.

$H_1$1: Part B enrollment awareness, consumer selection stress, and enrollee income levels significantly increase the likelihood of enrollee late penalty classification.

Theoretical Framework

I used Schneider and Ingram's (1993) social construction framework (SCF) theory as the theoretical lens for interpreting federal laws and regulations, communication of federal policies, and resolution of problems arising at the state of Medicare enrollment procedures. The theory of SCF is the learning experience of the reality of the group of people within society and understanding the social change. The theory of social construction related to my targeted population (senior citizens aged 65 or older) in terms of their learning experience with community problems, knowledge and skills, and the financial burden of paying an additional Part B LEP with their limited retirement income. I employed the SFC theory to review the CMS published enrollment policies and enrollees' awareness, consumer selection stress, and the correlation between income and LEP impact on Part B enrollees. I used published articles about the implementation of public policy, agenda setting of public policies, social construction of the target population, an introduction to the public policy process, interorganizational policy implementation of theoretical perspectives, and the nature of reality theory (see Andrews, 2012; Birkland, 2014; O'Toole & Montjoy, 1984; Schneider & Ingram, 1993).

The foundation of SCF theory is public policy process; therefore, I employed SCF to address the interactions between politics and policy regarding this study's target

population of senior citizens aged 65 or older. Further, this theory helped me to explore the identity and reality of this group of people with an aim toward meaningful social change. Using SCF as a theoretical foundation, this study supported the field of public policy and allowed me to evaluate the target population's role within the community by evaluating Medicare beneficiaries' awareness, skills, and knowledge of Part B late enrollment procedures and their effects on Medicare enrollees' behaviors. I investigated the effect of Part B enrollment policies and procedure information on Medicare beneficiaries who reside in a suburban city of a northeastern state. Medicare regulations impact late payment rules and policy implementation (Harrington et al., 2014); therefore, expanding the information available to Part B beneficiaries, CMS policy administrators, policy makers, and the community will support increased awareness, presumptively resulting in more timely Part B enrollment and thus reducing late enrollment penalties. SCF theory is addressed in more detail in Chapter 2.

Furthermore, I used the SCF as a lens of interpretation for Part B enrollee consumer behaviors, choices of insurance plans, beneficiaries' awareness of enrollment deadlines, annual income, CMS enrollment policies, and policy implementation. Two underlying principles of the SCT assisted in my exploration of CMS policy and politics in the Medicare program: the reality of the current CMS enrollment periods and the identification of how LEP impacts on the targeted population.

Nature of the Study

In this research study, I used a quantitative method of inquiry employing a purpose-built demographic questionnaire and two modified survey instruments, one

measuring perceived stress and the other measuring decision-making mindfulness. The study's IVs are consumer selection stress, Part B enrollment awareness, and enrollee income level. These IVs were hypothesized to be predictors of LEPs and were measured on ordinal scales. The late payment is my DV; it is the outcome variable and was measured on a nominal scale. The variables are illustrated in Table 1.

Table 1

Research Variables by Category

Descriptive	IV	DV
Demographics	*Awareness*	*Late enrollment*
Income levels	*Stress*	*Penalty*
	Income	*Classification*

The target population of my study was Part B enrollees, both enrollees who are paying a late enrollment premium, and those who are not required to pay the late payment penalty. They were retirees, over the age of 65, whose primary residence is in my city of interest in a northeastern state. I conducted an observational study using a survey instrument to collect data from the target population. The survey instrument has already been validated and is in the public domain. The survey instrument's validation is explained in detail in Chapter 3. I surveyed 112 people. I collected data at public access areas such as local fitness centers and the public library. This survey was important to my research study because these data provided information about Medicare enrollees' understanding about Part B. My full population was the total number of individuals aged 65 and above enrolled in Medicare who resided in my selected study city. These collected

data were then analyzed through a logistic regression statistical analysis (using IBM SPSS v. 24 Software) to calculate the likelihood coefficient values. Once validity and reliability of the survey instrument were established and found to be within acceptable ranges, the instrument was then used for data collection within my wider participant group. The sample of this study included only those who are enrolled in Part B.

Definitions

This section includes the definitions of terms and operational definitions that will be employed throughout this study:

Definitions of Terms

Medicare: Medicare is the federal health insurance program for senior citizens who are 65 or older, as well as some qualified younger age people with permanent disabilities. This program is a derivative of the Social Security Act of 1935, which President Johnson implemented in the early- to mid-1960s. The Medicare program is divided into Medicare Parts A, B, C, and D. Medicare Part A is a medical insurance program, Part B is a hospital insurance plan, Medicare Part C is an advantage program (private insurance program), and Medicare Part D is a drug and prescription insurance program. Each subset has different coverage and premium policies.

Medicare Part B (Part B): The Medicare supplementary health insurance program that is managed by the CMS. Part B is a subpart of Medicare that covers medical services and supplies (Klees et al., 2015). Parts B and D of Medicare have the same funding source, but funding for each is kept in a separate account. The funding source for Part B is the United States Treasury, which covers 75% of Part B expenses and 25% of Part B

fund resources, which are based on the beneficiary's monthly premium rate derived from their annual income and LEP charges where applicable (Klees et al., 2015, 2016).

Medicare population in study city: Retirees who are 65 years old or older and live in a suburban city of interest in a northeastern state.

The Centers for Medicare and Medicaid Services (CMS): The CMS administers and manages the Medicare program for seniors and some permanently disabled qualified people and provides funds to states running children's health insurance programs. This federal governmental agency publishes enrollment polices, monthly premiums for Part B, and late enrollment charges (Sanders, 2014).

The Department of Health and Human Services (HHS): A federal governmental department, the HHS is the one of the agencies that manages the Medicare program. The HHS has several other departments, including CMS, that deal with different health and human services issues.

The Patient Protection and Affordable Care Act of 2010 (ACA): The landmark legislation that allowed approximately 20 million uninsured Americans to enroll in healthcare benefits (Obama, 2017). This healthcare act included the expansion of healthcare services in rural locations. The ACA played a role, on both political and policy levels, in Medicare program funding.

Operational Definitions

General Enrollment Period (GEP): The CMS has published a general enrollment period for individuals who missed an initial enrollment period due to lack of income or

education, confusion regarding policy, or forgetting to enroll initially. Medicare enrollees who want to enroll during the GEP must pay the LEP charge.

Initial Open Enrollment Period (IEP): The IEP is the range of time during which Medicare beneficiaries may apply for Part B—from 3 months before to 3 months after their 65th birthday—without being assessed LEPs.

Late Payment Penalty (LEP): Refers to late fees of 10% or more associated with late enrollment in Part B (Sanders, 2014). LEP fees do not apply to all Part B beneficiaries. Late fee charges apply only to those Part B beneficiaries who missed initial enrollment periods. Late enrollment charges are applied based on the total number of years by which an enrollee missed the IEP.

Part B Consumer Selection Stress: Classified as an independent variable for Part B beneficiaries who are choosing insurance plans.

Part B Enrollment Annual Income: Beneficiaries' annual income based on annual Internal Revenue Service tax filings.

Part B Enrollee Enrollment Awareness: Refers to an independent variable of Part B beneficiaries' understanding of and literacy regarding Part B enrollment procedures.

Special Enrollment Period (SEP): Refers to the CMS published enrollment policies for qualified individuals who did not enroll in Part B or Part A during the initial enrollment period when they became eligible (at the age of 65) because of their own or their spouses' employment-based coverage/group health insurance plan. These individuals, and disabled individuals, are still qualified to enroll during the SEP without a LEP. They may enroll at any time while they are covered by their group health insurance

plan or during the 8 month period following employment end or group health insurance plan end, whichever comes first. Eligible beneficiaries are still required to complete two forms: CMS 40 B (application for enrollment in Medicare) and CMS L564 (request of employment information) and return them to the SSA.

Social Security Administration (SSA): A federal governmental agency that manages and administers retirement paychecks for retirees who are qualified to receive retirement income under the Social Security Act of 1935, Title XVIII entitlement program (Social Security Administration, 2016). The federal old-age, survivors, and disability insurance program was signed by President Franklin Roosevelt in 1935. The Social Security Act has been amended several times since 1935; the current version of the SSA provides several social welfare and insurance programs. SSA programs are funded through payroll tax contributions from employees and employers (Social Security Administration, 2016).

Assumptions

I tested for the likelihood coefficient values (odds ratio) of Part B beneficiaries who live in a suburban city in a northeastern state. I assumed that the selected population would be experiencing stress regarding the selection of insurance plans, have an incomplete understanding of enrollment policies and procedures, and receive limited income. An additional assumption was that demographic variables and income would predict the likelihood of LEP assessment among Part B enrollees. This study's surveyed population included qualified Medicare enrollees over the age of 65. I did not check the validity of participants' responses because the survey responses were anonymous. I also

assumed that all my study participants would give truthful answers in their survey responses. Finally, I assumed that Part B enrollees in my study city would be active participants and would provide detailed explanations about their Part B enrollment.

Scope and Delimitations

In this study, I only focused on Part B late enrollment outcomes as they related to English speaking retirees aged 65 and older who are qualified Medicare beneficiaries and whose primary residency is in my study city in a northeastern state. Although there are some Part B beneficiaries under the age of 65, who suffer from Amyotrophic Lateral Sclerosis or End Stage Renal Disease, and are capable of reading, writing, and speaking in English, they were excluded from my study. Additionally, household income and family members played important roles in the enrollment in Medicare and the avoidance of CMS's late enrollment policies; therefore, I only addressed individual enrollee effect and did not account for external factors.

Limitations

My study's limitations included the concept that observational types of studies prohibit claims of causality (internal validity). The results of my study are not reflective of other cities in my northeastern state of interest and are not generalizable to other Medicare enrollees living in other locations (external validity). Command of the English language was necessary to complete the survey questions; therefore, only Part B enrollees who speak, read, and write in English responded to my survey questionnaire.

Significance of the Study

My aim was to create positive social change by providing information about Part B late enrollment policy issues during the enrollment periods for federal-level policy implementation. Legislators and policy committees could review these Part B late enrollment policy issues and challenges and then change them to benefit Part B enrollees. This could have a positive impact on millions of retirees, as well as those who are permanently disabled, and reduce the financial burden generated through recurring LEP payments.

Madubata (2015) suggested that, by 2040, 79.7 million older adults will live in nursing homes, and nearly 40% will need nursing home services. Medicare and Medicaid health insurance programs are the primary services funded by CMS programs in the United States. Therefore, this study's findings are applicable to a significant population. Burrell (2015) stated that individualized education increased portal enrollment for the CMS and achieved the goal of improving coordination and quality of patient care through education. My study contributed to the information available for federal policymakers and senior citizens about the complexity of Part B enrollment policies and opportunities for streamlining the application processes of both the IEP and GEP. The results of this research could contribute to existing literature and enhance understanding of Part B enrollment issues, procedures, and LEP awareness.

Summary

In Chapter 1, I introduced the research study's importance and rationale and provided an overview of Part B enrollment consequences and complications. Through

this study, I answered the research question and hypotheses by finding the likelihood coefficient values of Part B enrollees' awareness, consumer selection stress, and income association with the LEP classification.

Chapter 2 includes a discussion of relevant published research and federal government reports concerning the IVs and DV. The United States Census Bureau, Social Security Administration, and CMS reports provided detailed information about the Part B enrollment application process, eligibility, qualifications, and Medicare enrollment summary data. Chapter 3 includes a description of my study's quantitative methodology, sample frame, variables of interest, and statistical techniques of logistic regression I used to examine the likelihood output of variables in response to the formulated research question and its associated hypotheses. Chapter 4 comprises analyses of the data associated with the research question and hypotheses. Finally, in Chapter 5, I present my conclusions, interpretation of findings, implications for social change, limitations, and recommendations for future study.

Chapter 2: Literature Review

Introduction

The CMS defines the LEP for Part B subscribers and mandates that enrollees who missed the IEP must pay an additional 10% of the LEP when they enroll during the GEP. Enrollees are also required to pay an additional enrollment fee for each year by which they missed their IEP; this late payment charge remains part of their monthly premium for the rest of their lives (Sanders, 2014). The LEP is a problem for senior citizens aged 65 and older, resulting in an additional financial burden and stressful circumstances (Sanders, 2014; Trivedi, 2015). Enrollees' varying levels of awareness, monthly income, selection of insurance plans, and understanding of the enrollment application and registration deadlines are contributing factors to the assessment of LEPs (Korobkin, 2014; Krumholz, Nuti, Downing, Normand, & Wang, 2015; Naci et al., 2014; Sommers, Gunja, Finegold, & Musco, 2015). Confusion and misunderstanding surrounding Part B enrollment deadlines resulted in approximately 750,000 individuals missing initial enrollment deadlines in 2012, causing them to pay a lifetime of Part B LEP charges (Sanders, 2014).

In this research, I concentrated specifically on the Part B LEP and its consequences and complications for senior citizens. Despite the publication of the CMS information, many Part B customers have been missing the initial enrollment and later suffering from a lifetime of LEP charges (Sanders, 2014). Although there are some enrollment awareness policies and online application procedures available for Part B enrollees on the CMS websites and in print versions, thousands of Part B beneficiaries

still missed open enrollment periods. Sanders (2014) suggested that Part B qualified beneficiaries have often confused the initial enrollment deadlines, thus finding themselves incurring monthly premiums plus LEP charges, as described under the LEP rule provisions.

Published articles have addressed Medicare Parts A, C, and D regarding enrollment data, age groups, permanent disabilities, and the consequences of Medicare utilization; however, Part B LEP consequences and complications have not been studied. My study began to fill the information gap as to why LEP assessment is occurring for some individuals but not for others. I reviewed Medicare enrollment data from scholarly published articles, CMS research and survey data, and United States Census data. I used current SSA and CMS websites to obtain supporting Part B data. I collected additional literature from Medicare-related journals, conference presentations in the Boston area, and published federal and state government reports. These data supported my study variables.

My literature review chapter is organized into five sections. The first section provides background information regarding the Medicare insurance program. The second section addresses the literature review strategy. The third section details its theoretical foundation. The fourth section addresses the key variables involved in my study and, finally, the last section provides a conclusion and transitional connection to Chapter 3.

Background

After a lengthy national debate, Congress established the Medicare program under Title XVIII of the Social Security Act (SSA) in 1965. The initial program focused on

insurance needs for citizens 65 years old and above. Later, in 1973, the program made certain disabled people eligible (Klees et al., 2015). The HHS is the current department responsible for managing health programs. In 2001, the Health Care Financing Administration (the part of the HSS department that managed Medicare and Medicaid programs) was renamed the CMS. In 2014, the most current reporting period, Medicare Part A covered over 53 million enrollees and paid $264.9 billion in eligible claims; Part B covered over 49 million enrollees and paid $261.9 billion in eligible claims; and Part D covered over 40 million enrollees and paid $77.7 billion in eligible claims, all resulting in Medicare total expenditure of an estimated $613.3 billion in the United States (Klees et al., 2015). Medicare has four different types of programs: Medicare Part A; Part B; Medicare Part C, also known as the Medicare Advantage Plan; and Medicare Part D, for prescription drug Medicare coverage.

Medicare

In 1950, Congress passed the limited provision "Medical Assistance to the Aged" that provided medical care to limited income individuals who had difficulty paying for medical expenses (Klees et al., 2015). In 1972, Medicare eligibility extended to individuals younger than 65 with long-term disabilities and with ESRD. It also added physical and speech therapy benefits. In 1977, the Secretary of the Department of Health, Education, and Welfare created the Health Care Financing Administration to administer both the Medicare and Medicaid health insurance programs for the elderly and poor populations as well as qualified permanently disabled people. The Medicare Catastrophic Coverage Act of 1988 included outpatient prescription drug benefits and placed a cap on

out of pocket expenses. This Catastrophic Coverage Act required Medicaid to cover premiums for qualified Medicare beneficiaries with incomes up to 100% of the federal poverty level (Altman & Frist, 2015).

In 1989, the major provisions of the Medicare Catastrophic Coverage Act of 1988 were repealed, except for those related to qualified Medicare beneficiaries. The Balanced Budget Act, introduced in 1997 during the Clinton administration, included a significant reduction in provider and plan payment, created the Medicare Care Choices Program for health plans, and established sustainable growth rates for physician fees. Finally, in 2015, Congress repealed the sustainable growth rate for physicians and put a new payment system into place.

Trends from 2005 to 2014 have indicated that the number of beneficiaries enrolled in Medicare has gradually increased; 44.8 million qualified individuals were enrolled in Medicare in 2005, and 56.9 million were enrolled in 2014 (The Henry J. Kaiser Family Foundation, 2016). In 2014, 42,869,102 Medicare beneficiaries in the United States were over the age of 65, and 8,453,925 were under 65, with permanent disabilities (The Henry J. Kaiser Family Foundation, 2016).

Medicare in Massachusetts

In 2013, there were 1,160,352 Medicare enrollees in Massachusetts: 959,407 enrolled in traditional Medicare, and 200,944 enrolled under the permanent disability category (The Henry J. Kaiser Family Foundation, 2016). In 2014, the number of qualified Medicare beneficiaries in Massachusetts rose to 1,251,177 and Massachusetts had a population of 6.6 million, 958,000 of whom were aged 65 or older (The Henry J.

Kaiser Family Foundation, 2016). Medicare in Massachusetts works the same way as it does in other states. In 2006, Massachusetts started a tax penalty program for individuals who did not have health insurance during the tax-filing year. In 2010, there were 131,421 enrolled Medicare beneficiaries younger than 65 years old and 815,695 over the age of 65 statewide, and there were 22,622 enrolled Medicare beneficiaries under the age of 65 and 178,118 over the age of 65 in my study's county (The Henry J. Kaiser Family Foundation, 2016). In my study city, 844 enrollees were younger than 65 years old out of a total enrollment of 7,975 (The Henry J. Kaiser Family Foundation, 2016).

Literature Search Strategy

I conducted research for this literature review using the online libraries of Walden University, American Military University, and Boston Public Library, as well as other search engines including Google Scholar, PubMed, The Centers for Medicare and Medicaid, the Henry J. Kaiser Family Foundation, American Fact Finder, Social Security Administration, the Department of Health and Human Services, and Journal of the American Medical Association networks. I used the following database search terms: *Medicare, Medicare enrollment problems*, *Part B LEP*, *Medicare enrollment awareness of enrollees*, *selection awareness of a variety of types of insurance premium*, *private insurance versus governmental insurance*, *the impact of late enrollment on Medicare*, *the disability impact on the Part B Medicare enrollment option*, *annual income variability on monthly premium rates*, and *Medicare cost and quality*. Furthermore, my literature searches were based on Medicare-specific content: *Part B enrollment policy*, *LEP*, *late*

payment classification, *Medicare awareness*, *annual income level for the monthly premium*, and *selection of the right insurance plan*.

I focused on research from scholarly articles published within the past 5 years. Several of the databases consulted could be searched within the previous 10 years, and theoretical base journals could be older than 15 years; these articles addressed the history of Part B enrollment consequences and complications. All articles are included in the references section. The scholarly articles addressed in the remainder of the literature review focused primarily on Medicare enrollment complications, Part B and enrollment procedures, Patient Protection and Affordable Care Act (PPACA or ACA), and Part B beneficiaries' enrollment consequences.

Theoretical Base

The SCF is a social theory of knowledge and human interaction with others. Berger and Luckman (1991) cited significant influences on sociology and the construction of reality; Mead, Marx, Schutz, and Durkheim influenced thinking about the sociology of knowledge and the concept of intuitions theory. Scholarship in this field has aimed to answer the question of how subjective thought becomes a social artifact, created through the social interaction of a group of people (Andrews, 2012). Although Mead is one of the originators of symbolic interactionism, other theorists share common philosophical backgrounds in social constructionism (Andrews, 2012). Interpretivists also use observational methods to study a group of people's behavior and social relationships with other people and institutions. Thus, both constructionists and interpretivists similarly

focus on the process of creation, negotiation, sustainability, and modification of process (Andrews, 2012).

Schneider and Ingram (1993) noted that the question of who benefits from or is negatively affected by policy has long been of interest to scholars. More recently, attention to the Part B insurance plan has increased given the emergence of new expectations for improving policy process. The social construction of target population is defined as the person or group whose behavior is affected by public policy and process (Birkland, 2016; O'Toole & Montjoy, 1984; Schneider & Ingram, 1993). Findings from my study's social construction of target population— Part B enrollees over the age of 65—will be important to agenda setting and legislative behavior on policy formation and design. The SCT is relevant to my study's topic because the Part B enrolment policy formation process depends on consumer behaviors and their impact on Part B late enrollment. In this study, I explored one group of people who live in society and interact with other groups of people. Therefore, my investigation of the reality of senior citizens' knowledge and skills is aligned with the foundations of SCF theory.

Three main factors affect the likelihood of personal health behaviors: self-efficacy, goal, and outcome (see Glanz, Rimer, & Viswanath, 2008). However, personal obstacles could change personal behavior through education and experience. The SCT relates to policy formation, decision making processes, and implementation. Policy interactions play a formative role in CMS enrollment policies, LEP policies, beneficiaries' income determination, and their ability to understand Part B Medicare enrollment procedures, and LEP outcome (Dilworth-Anderson, Pierre, & Hilliard, 2012:

Sander, 2014). My observational study of the relations and behaviors of people aged 65 or older with regard to the CMS is based on SCF foundations of reality. Therefore, the reality of my targeted population's experience is foundational to my study.

Berman (2013) wrote an article titled "Ideational theorizing in the social sciences since 'policy paradigms, social learning, and the state,'" which focused on how social scientists have taken up the questions presented when policy paradigms are put forward regarding the strengths and weaknesses of current ideational scholarship. This study found that ideational scholars needed to come up with a clearer definition of ideational variables. The new ideas became institutionalized, affected the political outcome, and therefore required a more careful investigation regarding motivation and context (see Berman, 2013; Weeks & Weinstein, 2017). In the same way, Medicare enrollment and premium policies are also a political outcome. When the Obama administration launched the ACA laws, there were more than 20 million Americans enrolled in and insured by healthcare benefits. The accountable care organization multiplied under the ACA laws; both quality and costs were important determinations of the development and achievements of the ACO (Kessell, Pegany, Keolanui, Fulton, Scheffler, & Shortell, 2015).

Sanders (2014) suggested that 49 million people were impacted by lack of understanding regarding the Part B IEP and have faced LEP consequences as a result. Social risk factors impacted Part B beneficiaries' income, awareness, and education. Medicare payment programs are needed to reduce disparities, promote fairness, and improve quality, outcomes, and value-based cost and quality (Buntin & Ayanian, 2017).

Medicare benefits were generally funded through a combination of revenue, payroll taxes from salary or wages, and the premium paid by beneficiaries. In 2015, Part B beneficiaries, including disabled enrollees, paid $279 billion. Of that funding, 73% came from the general revenue, 25% from the premium paid by beneficiaries, including the LEP, and 2% from interest and other resources (see Cubaski & Neuman, 2017).

After meeting the age requirement for Part B eligibility, enrollees have a 7 month IEP during which to sign up for medical insurance. For example, a person who turns 65 years old in January 2017 can enroll from 1 October 2016 to 30 April 2017. Beneficiaries who enroll during one of the 3 months prior to turning 65 would have coverage beginning the first day of the 65th birthday month. After the IEP has ended—if an individual missed their IEP due to having employment insurance and not enrolling when qualified, or in cases of spousal insurance, a group health plan, disability, or still being in employment—they can enroll in both Part A and B simultaneously during a SEP, as dictated by published CMS policies. Other situations that qualify beneficiaries for Part B late enrollment without LEP include having Tricare, a disability such as ESRD and ALS, or lived overseas when they turned 65 (Jackson, 2016). This IEP is the 8 month period that starts when employment or insurance first ends. Regardless of SEP benefits, a retiree's health insurance coverage does not count as current employment coverage and disqualify individuals from enrolling in SEP.

However, if the IEP is missed without a reason, enrollment can occur during the annual Part B GEP from January 1 to March 31. Coverage starts on July 1 for beneficiaries who enroll during the GEP, but they must pay an additional LEP based on

how many months or years by which the IEP was missed (Klees et al., 2015). Educational awareness is important for senior citizens to understand that they must enroll around their 65th birthday and remember their IEP because CMS open enrollment policies can be confusing. Applications for those who attempt to sign up too early are denied, but those who enroll late are assessed an additional LEP for the rest of their lives. There is a great deal of confusion and misunderstanding regarding CMS enrollment policy for those aged 65 and above. The Part B enrollment data, including how many Part B beneficiaries have been paying late penalty charges, is still unknown.

Key Variables

My research study involved three independent variables: Part B enrollee enrollment awareness, Part B consumer selection stress, and Part B enrollees' annual income levels. The LEP classification was a dependent variable of my study. I used a Likert-like scale to measure participants' responses to my independent variables.

Medicare Enrollee Enrollment Awareness

Part B enrollee enrollment awareness was an independent variable of my study and is an important factor of beneficiaries' awareness of the enrollment consequences and complications of Part B. Before enrolling in Part B, beneficiaries should be aware of the Part B premium, coverage, deductible, out-of-pocket expenses, prior authorization, outpatient therapy, open enrollment periods, and benefits that each state and city offer because Part B coverage and premiums can vary by state and city even though Part B is under federal law. Klees et al. (2015) suggested that the CMS (within the HHS) is responsible for the overall administration of the Medicare program. The SSA helps to

withhold and maintain Part B beneficiaries' initial determinations, as well as keeping master records. Published articles on Part B enrollment procedures depicted both positive and negative opinions about enrollment awareness skills and knowledge.

Sullivan (2015) stated that the Part B enrollment process could be tricky, and mistakes could be costly to Part B beneficiaries who were unaware of the process. Some previously published advice could be helpful to Part B beneficiaries so that they could avoid expensive LEPs and coverage gaps as well as maximizing coverage and minimizing cost (Moeller, 2016; Sullivan, 2015). Understanding Medicare eligibility and enrollment procedures could benefit qualified Medicare beneficiaries. Despite high-cost sharing, Medicare is very popular among Americans. Of 1,253 respondents surveyed in a 2013 Harvard School of Public Health poll, 70% expressed a favorable view of Medicare (Altman & Frist, 2015).

Klees et al. (2015) noted that Part B covers chiropractic services, podiatry, optometric, anesthesiology, clinical psychological services, clinical social work services, emergency room services, outpatient clinics, ambulatory surgery, same day surgery, home health coverage that is not covered by Part A, laboratory tests, X-rays, radiological diagnostic services, certain preventive and screening tests, physical and occupational therapy, speech pathology services, and comprehensive outpatient rehabilitation service. Additionally, Part B covers mental health care, radiation therapy, renal dialysis and transplants, heart, lung, heart-lung, liver, pancreas, bone marrow, and intestinal transplant services, oxygen equipment, wheelchairs, prosthetic devices, surgical dressings, splints, casts, and braces, Hepatitis B vaccines, immunosuppressive drugs, certain diabetes

services, and ambulance services (Klees et al., 2015). Senior citizens who require these medical and surgical services must have Part B coverage.

Sanders (2014) suggested that CMS rules are related to the complexity of enrollment rules. Sanders contended that action was needed to fix the IEP and GEP rules, align the Part B enrollment policies, recognize misinformation, educate employers, revisit Part B LEP rules, and provide quality information to those individuals who are going to be Part B eligible. Part B beneficiaries' education about and selection of the right insurance plans correlate with their levels of selection stress and knowledge of healthcare coverage, premiums, and LEPs for not enrolling on time. Therefore, the selection of the right insurance plan is an important decision. Healthcare professionals and healthcare institutions have also paid close attention to Medicare plans because these plans have been a major source of revenue, covered a large portion of high healthcare users, and have been a significant driver of change in the healthcare industry (Altman & Frist, 2015).

Holahan and Blumberg (2017) suggested that there were problems of low enrollment and adverse selection in different geographical areas; therefore, a significant increase in outreach, cost sharing assistance, premium tax credit for insurers, and federal and state policy assistance approaches would be needed to increase awareness of health insurers, educational assistance for enrollees, and consumers' enrollment assistance. These approaches may serve to enhance and focus enrollment awareness for Part B beneficiaries.

Consumer Selection Stress

The stress of consumer selection of Medicare insurance options is a critical phenomenon. Consumer selection stress depends on the buying behaviors surrounding healthcare insurance plans and determining which has the most benefits for consumers. Consumers have a greater chance to meaningfully shop for a health coverage plan if they have choice of market companies, language skills, and understanding of benefits and out of pocket costs (see Greene, Hibbard, & Sacks, 2016; Guest & Quincy, 2013). As a result of multiple options, consumers could experience choice overload and fatigue in the decision-making process (Summer, 2014).

Moorman and Matulich (1993) suggested the importance of individual selection behaviors as well as the joint effects of various characteristics of consumer selection. Results from a survey of 404 consumers indicated that an individual's health, ability characteristics, and behavior impacted their selection efforts. Part B selection and understanding efforts are very important in the sense that consumers' motivation could lead to choosing the right healthcare plan and saving thousands of dollars. Choosing a better healthcare plan with a lower premium cost and understanding monthly income sources can be stressful tasks for Part B consumers. Chakraborty, Ettenson, & Gaeth (1994) discussed how consumers choose their health insurance plans based on their decision-making knowledge and skills in multiple environments such as dental, vision, and health plans together, short distance from consumers' residence area, low cost premium, etc. Consumers' decision-making processes resulted in several impacting factors; the behavior of consumers in diverse demographics, regarding selection of a

variety of products, gave marketers more targeting opportunities (Chakraborty et al., 1994).

The current market of healthcare insurance industries has shifted toward consumers' preferences because consumers are selecting health insurance plans based on their understanding of cost and privilege. Consumers could choose a health insurance plan that has more benefits, such as lower co-payment and more services. The cost of insurance has skyrocketed, the choice of insurance plans is growing, and the market competition is fierce (Chakraborty et al., 1994). Factors impacting consumer selection of health plans include: low cognitive ability and poor skill; summarized costs, placement quality stars, and online help; Medicare enrollees' expectations of inpatient treatment and skilled nursing facilities; and a new risk adjustment system with reduced favorable consumer ratings (see Chan & Elbel, 2012; Keohane, Grebla, Mor, & Trivedi, 2015; McWilliams, Hsu, & Newhouse, 2012; Summer, 2014; Zhang, Baik, & Newhouse, 2015).

Reid, Deb, Howell, Conway, and Shrank (2016) conducted a quantitative research study about the roles of cost and quality information in the Medicare Advantage enrollment decision-making process by using conditional logistic regression statistical analysis. The study was conducted with 847,069 beneficiaries nationwide who enrolled for the first time in 2011. The main goal of this study was to match beneficiaries with their plan choice sets and understand the relationships among cost, quality, benefits, brand market share, and beneficiaries' enrollment decision-making process. They found that the total variation in plan choice in premiums was 25.7%, out-of-pocket costs were

11.6%, quality variation costs were 13.6%, and the brand market share was 35.3%. These results showed that beneficiaries preferred higher quality and lower cost Medicare Advantage plans and consumers always preferred a higher quality healthcare plan rather than a lower quality (Reid et al., 2016). This study supported the importance of consumerism to insurance market choices.

The population of interest in the Chakraborty et al. (1994) research study was Maryland state employees, including those with a high level of education; the sampling frame totaled more than 32,000 employees. The researchers used a systematic and random sampling of 1,200 state employees; to maximize the rate of response, they contacted their participants by sending them an introductory letter and calling them on the telephone (Chakraborty et al., 1994). The sample was composed of 51.7% females and 48.3% males; the average age of participants was 40.96 with a median age of 40. A sample of consumers' enrollment showed that they considered four different plans with the following attributes: brand, waiting time, office hours, premium, emergency service, choice of doctor, drug, process of document filing, office visits, out of town emergency coverage, dental coverage, quality of affiliated hospital, choice of hospital, travel time to physician, travel time to hospital, time required to make a routine appointment, alcohol, substance abuse and mental health counseling, psychologists, wellness and education programs, vision and healthcare, communication with participants, preventative care, hospitalization services, and medical consultation by phone (Chakraborty et al., 1994). Chakraborty et al. (1994) addressed the importance of selecting insurance plans to beneficiaries, which supports the significance of my study. Important information and

knowledge regarding the healthcare market could help beneficiaries select a better health insurance plan.

Kirby and Cameron (2016) examined the impact of high deductible health plans on the healthcare marketplace and explored the evolution of patients into consumers by evaluating the entry-level strategies of the healthcare system employed to attract consumers and a variety of pricing strategies. They drew comparisons with other industries, such as commercial airlines, that adopted more consumer-oriented price strategies. Their study focused on the brand of health provider, the impact of prices on consumer choices, high-deductible healthcare plans, the price of healthcare, other services such as dental benefits, and in-network retail stores with lower-price medications; they concluded that the value and its retail factors are more effective on consumer selection behaviors (see Kirby & Camron, 2016).

Kirby and Camron (2016) addressed beneficiaries' understanding of the healthcare organization provider quality and value of the delivery system, consumer choice of prices, high deductible costs, and healthcare plans and services. Accountable care organizations (ACOs) multiplied understanding, skills, and knowledge under the ACA law; improvement of healthcare quality, lower costs, and healthcare delivery were significant measurements of ACOs' achievements (Kessell et al., 2015). Consumer selection regarding multiple healthcare plans and benefits is a significant factor in both private and public healthcare providers. Kessell et al. (2015) assessed the quality of six organizations in both the private and public sectors by measuring structure, process, outcomes, and patient satisfaction. Outcome measured 20%, patient satisfaction 8%, and

structure 7% out of the total 100%. The study findings indicate that healthcare providers need to focus on quality improvement initiatives and that consumer preferences and income effects are also important measurements of consumer healthcare selection (see Kessell et al., 2015). This study provided quality information for developing a consumer rating system and understanding patient choices and satisfaction concerning healthcare plans. Consumer selection of Part B health plans and understanding monthly premiums impacted beneficiaries' healthcare selection choices and LEPs.

Tools of consumerism include healthcare insurance choices, consumer selection behaviors in choosing the right healthcare policies, the quality of decision making skills and knowledge, effective consumer characteristics, consumer motivation and ability to choose healthcare plans, adverse selection of health insurance, effective treatment, relative valued health purchased, health insurance demand, and startup costs (see Korobkin, 2014; Moorman & Matulich, 1993; Nadash & Day, 2014; Schansberg, 2014; Turnpenny & Beadle-Brown, 2015). Recently, healthcare costs increased, and millions of Americans began coverage under the ACA. However, the greater number of consumers (patients) sharing costs and changing physician incentives greatly contributed to the ACA's weaknesses (Korobkin, 2014). Furthermore, cost effectiveness and the pressure to make the right decision on time could impact Part B beneficiaries' selection abilities.

Enrollee Annual Income Level in Part B

Of the 64 million Americans who received SSA benefits in 2013, 5.4 million people were newly awarded SSA; about 64% of Medicare beneficiaries aged 65 and over have received at least half of their income from the SSA; about 55% of female adults

received SSA income benefits, and the average age of disabled worker beneficiaries was 53.7 years old (Hungerford, 2015). The Social Security Administration generated $30.4 billion in economic output. The SSA benefits that were distributed to qualified beneficiaries included 65% retirees, 17% disabled beneficiaries, 8% children, 7% widowed, and 3% spouses. On average, Massachusetts retirees received about $1,266, and the average annual SSA retirement benefit was $15,189 (The Social Security Administration, 2016). The United States Census Bureau estimated that, in 2015, the income for the total population of my study city included 69.7% of the labor force: 65.4% were employed, 4% were unemployed, and 30.3% were not in the labor force. There were 22,129 total households, 82% of which reported earnings. The mean earnings were $96,144: 27% had SS income, of which the mean SS income was $18,424 with a 3.9% SS supplement income. The mean SS supplement income was $9,177 with 1.6% receiving cash public assistance; $5,668 was the mean cash public assistance of which 13.5% had retirement income and the mean retirement income was $25,235

Nationally, most Medicare beneficiaries live on limited incomes and have modest assets; in 2013, half of Medicare beneficiaries reported their annual income to be less than $23,500 per person, 25% of individuals reported less than $14,400, and half had saved less than $62,000, which was not enough for many seniors to pay for one year in a nursing home (Altman & Frist, 2015). Some seniors struggled to pay medical bills even with some state assistance available. The United States Census Bureau (2015) stated that the total estimated population in Massachusetts was 6,638,314, the average household income was $87,810, the median household income was $66,000, and the median income

for those 65 years old and above was $53,096. The monthly retirement income payment from the SSA for Medicare beneficiaries differs based on their retirement ages and employment histories; the Part B premium rate also varies. The average annual incomes of those aged 65 and over in my study city in a northeastern state were $53,096, $64,217, and $53,451, respectively (The United States Census Bureau, 2015).

Persons in the categories of single individual, head of house, qualifying window, and married person filing separately fell under the individual filing tax return status; their income level was less than $85,000 per year, and the monthly premium was $121.80 (see Table 2). Each beneficiary needed to pay $1,461.60 per year if they enrolled on time. If they enrolled 12 months late, the Part B LEP was an additional 10%. The beneficiary was responsible for paying an additional $12.18, making the total monthly premium $133.98. The late penalty payment varied for each beneficiary who missed the enrollment period for one or more years. One beneficiary who missed the enrollment deadline by 12 months needed to pay $1,607.76 per year (CMS, 2017).

Table 2

Part B Monthly Premium Rates for 2016 based on 2015 Tax Returns

Tax return filling status in 2015	Modified Adjusted Gross Income (MAGI)	Part B Monthly Premium Amount	Total Part B Monthly Premium Amount after
Single Individual, head of house, qualifying window, married separate filling	Less than or equal $85,000	0	$121.80
	Greater than $85000 and less than $107,000	$48.70	$170.50
	Greater than $107,000 and less than $160,000	$121.80	$243.60
	Greater than $160,000 and less than $214,000	$194.90	$316.70
	Greater than $ 214,000	$268.00	$389.80
Beneficiaries filling Joint tax return	Less than or equal $170,000	0	$121.80
	Greater than $170,000 and less than $214,000	$48.70	$170.50
	Greater than $214,000 and less than $320,000	$121.80	$243.60
	Greater than $320,000 and less than $428,000	$194.90	$316.70
	Greater than $428,000	$268.00	$389.80
Beneficiaries married but filling separately tax return in 2015	Less than or equal $85,000	0	$121.80
	Greater than $85000 and less than $129,000	$194.90	$316.70
	Greater than $129,000	$268.00	$389.80

Note. From *Annual Statistical Supplement for Medicare* (p. 41), by Social Security Administration, 2015 (https://www.ssa.gov/policy/docs/statcomps/supplement/2015/medicare.pdf)

The comparative study between the 10% and 50% enrollment missing beneficiaries indicated that the monthly Part B enrollees were assessed up to a 10% late payment, totaling $1,607.76 per year. For the 50% enrollment missing beneficiaries, the late payment totaled $2,192.40. These data illustrate that the total annual deficits for both

types of beneficiaries were $146.16 and $739.80, respectively. However, the beneficiaries' monthly retirement payment, missed enrollment period, and annual income levels varied depending on their geographic location and age, as shown in Table 3.

Table 3

Part B Monthly and Yearly Total Deficit Premiums for 10 to 70% LEP

Regular Monthly and yearly premium for less or equal than $85,00 beneficiary annual income (AI)	Missed percentage (%)	After added late penalty per monthly premium	After added the late penalty per year	Total deficit premium per month	Total deficit premium Per year
$121.80 per month	10	$133.98	$1607.76	$12.18	$146.16
	30	$158.34	$1900.08	$36.54	$438.48
$1461.60 per year	50	$182.70	$2192.40	$60.90	$730.80
	70	$207.06	$2484.72	$85.26	$1,023.12

Naci et al. (2014) conducted a research study about persistent medication affordability problems among disabled Medicare beneficiaries enrolled in Part D from 2006 to 2011. They used the access to care (ATC) files of the MCBS that designed a longitudinal, nationally representative rotating panel survey among the nonelderly, disabled population and elderly Medicare enrollees administered by the CMS. Their objective was to investigate national trends in medication affordability. They used (n = 14,091) samples among the disabled population who had multiple chronic conditions; this vulnerable population had limited resources, which placed them at risk for cost-related

medication nonadherence (CRN). They measured the survey-reported CRN and found that they spent less on other basic needs to afford medicines (Naci et al., 2014).

The result of Part D implementation on disabled Medicare beneficiaries has been cost-related. Because the price of medications increased from 31.6% to 35.6%, disabled consumers have experienced decreased spending power to account for their other needs. These results indicate that the prevalence of spending less on other needs to afford medications also increased from 17.7% to 21.8% (Naci et al., 2014). These reports predicted Part D implementation among 95% of the demographic and health characteristics of disabled beneficiaries. They found that beneficiaries with multiple chronic conditions had more severe affordability problems (Naci et al., 2014). Naci et al. (2015) excluded beneficiaries aged 65 and older who were residing in a long-term care facility = 70,067). The total number of their unique population sample was only 6,197, while the average nationally represented samples comprised 7,030,410 beneficiaries (Naci et al., 2014). They excluded some of the population estimates included in Part B, which will be my study sample population. This evaluation of six years of trends helped them to understand the extent of the financial burden on permanently disabled beneficiaries. This study used the logistic regression statistical analysis method. This study is relevant to my research because it studied the disabled population under 65 years old who had permanent disabilities and qualified for Medicare or Part B.

Part B Late Enrollment Penalty Classification

The Medicare proposal was meant to reduce the federal budget deficit by increasing the premium for higher-income seniors, assessing the extra late enrollment

penalties, gradually raising the retirement age to 67, and increasing premiums for all seniors; however, in 1970, 12% of the population were Medicare beneficiaries, which increased to 22% in 2010. This demonstrated an increase in Medicare trends in the United States (Altman & Frist, 2015).

The LPC is classified by Part B beneficiaries' age and annual income. The CMS predicted their monthly premium and late penalty percentage, which is determined by how many months or years by which the beneficiary missed the deadline during an IEP. For example, one beneficiary missed the Part B IEP for eight years after he turned 65, due to a lack of quality information and knowledge. After eight years, that beneficiary realized that he needed to enroll in Part B and, consequently, his premium is now very high. If he had enrolled three months before or after he turned 65, per the CMS policy, then he would only need to pay $121.80 per month for his Part B premium (his annual income is less than or equal to $85,000). Instead, this beneficiary must pay $218.44 ($121.80 x .8+$121.80) per month.

The ACA policy covered millions of additional American people, securing healthcare needs that were not previously covered; therefore, the ACA policy improved millions of Americans' lifestyles and access to healthcare. Lacking a proper plan to repeal and replace the ACA could hurt millions of people (Obama, 2017). Medicare and Medicaid have evolved over more than 50 years in the United States healthcare system and have covered more than 111 billion Americans. Repealing some or most of the ACA could impact more than 20 million newly insured individuals and has therefore been a challenge to policymakers (Wilensky, 2017). Despite the negative aspects of the ACA, it

ensured that all Americans could access high quality, affordable healthcare that was appropriate for their needs (Bauchner, 2015). Despite millions enrolling in healthcare coverage plans under the ACA, Medicare beneficiaries still faced problems (Bauchner, 2015; Wilensky, 2017).

Furthermore, the American political process has shaped inequality among national income levels and substantially affected the inequality of health coverage in state policies. This has necessitated a bipartisan foundation for issues in the ACA's state healthcare coverage policies (see Jones, Bradley, & Oberlander, 2014; Sommers, et al., 2015; Zhu & Clark, 2015). Studies have suggested that state-level healthcare policies need to provide a bipartisan foundation, rather than an individual political party's healthcare policies. Additionally, Masaba (2014) conducted a study that proposed a new change to Medicare provisions for inpatient admission to address the lack of laws protecting Medicare beneficiaries from a violation of the Fifth Amendment's Due Process Clause. This article discussed the outpatient services received by Medicare beneficiaries, the Due Process Clause and Established Clause laws, and the SSA determinates regarding the application process and premium rates (Masaba, 2014). This article addressed the need for attention to Medicare provisions. Additionally, McNeal (2016) wrote that the ACA Medicare policy regarding senior citizens 65 years of age and older who need hearing aids should be reformed. Part B is a federal insurance program and does not cover hearing aids, which cost seniors between $2,000 and $7,000 per pair from their out-of-pocket money. Therefore, hearing aids can be an additional financial burden for senior citizens.

Buntin and Ayanian (2017) suggested that all healthcare providers and policymakers should to be concerned about social risk factors such as income, education, minority status, ethnic background, sexual orientation, limited social relationships, and living alone. Attention to these factors can help achieve an improvement in the outcome, quality, and control of healthcare costs. The CMS needs to closely monitor effects on disadvantaged Medicare enrollees and their healthcare providers to ensure that CMS policy goals are met (Buntin & Ayanian, 2017: Day & Nadash, 2012). Under the CMS regulations, three conditions can lead to penalties. First, the CMS has rules and policies for beneficiaries who did not enroll during an IEP; consequently, they could face a costly LEP. These penalties vary based on the amount of time that has passed since the IEP. Second, beginning in 2007, if beneficiaries' annual income exceeded the income threshold, then they needed to pay an income-related monthly adjustment amount. Finally, the CMS rules had a "hold-harmless" provision that prohibited an increase in the standard Part B premium from exceeding beneficiaries' SSA: the cost of living adjustment (COLA) that was needed to lower the Part B premium rate for certain beneficiaries whose premium was deducted from their SSA checks (Klees et al., 2015). In 2016, these circumstances predicted that Part B income depends on enrollees' premiums. Therefore, the required adequate financial fund for Part B premium increased and was projected to increase by an unprecedented 52% (Klees et al., 2015).

Jacobson, Neuman, and Damico (2015) suggested that policymakers considered a variety of proposals over several years to discourage or prohibit Medicare beneficiaries from purchasing first-dollar supplementary insurance to reduce debt. Currently, the H.R.

2 bill is pending in the United States Senate; the bill would prohibit Medicare supplemental insurance (Medigap) policies from covering the Part B deductible for Medicare beneficiaries who qualify on or after 1 January 2020. This provision will reduce federal spending by about $400 million between 2020 and 2025. If implemented, this provision would hurt 12% (about 4.9 million) of Medicare beneficiaries.

Obama (2017) stated that healthcare policy has always changed when the country has a new political leader in the decision-making position. However, individual income tax penalties are a unipolar problem of the ACA. Under a continuous coverage requirement, beneficiaries who missed an initial open period could face many difficulties in obtaining health coverage until they receive employer-based health insurance or reach the age of 65 and become Medicare eligible. A better alternative option for beneficiaries who did not sign up for Part B at age 65 is a modified version of the premium surcharges used by the CMS policy today for Part B (Holahan & Blumberg, 2017).

Sloan, Acquah, Lee, and Sangvai (2012) conducted a study about the delayed use of Part B services to beneficiaries who turned 65 years old and enrolled in Part B physicians' visit services. They discovered that many researchers studied and focused on an overuse of services. They tried to find information about the underuse of services by Part B beneficiaries when Congress introduced a "welcome to Medicare" physician visit with preventive benefits and no cost sharing to beneficiaries. They examined this phenomenon by using national longitudinal data and found that 12% of Part B beneficiaries did not use their first benefit until two years after their Part B coverage started. They concluded that one in eight beneficiary enrollees delayed their first use of

Part B benefit services for at least two years after they reached age 65 (see Sloan et al., 2012). This study examined the problem of beneficiaries' late use of Part B services. The Part B enrollment policy is still confusing to many beneficiaries regarding services, enrollment date, and the date that the benefit started.

Summary

Implementing the ACA, repealing the sustainable growth rate, and now attempting to replace the ACA could be costly for senior citizens. Medicare has been a federal government-controlled insurance program for the elderly and permanently disabled population in the United States for over 50 years. For the purposes of this study, I used the CMS data to conduct a community survey in my study city in a northeastern state because the likelihood coefficient value of LEP is still unknown among these Part B enrollees.

The ACA has implemented and covered more than 20 million uninsured individuals including low-income senior citizens, but the political turmoil surrounding the repeal and replacement of the ACA could make for uncertainty for these low socioeconomic status/low-income individuals. The Part B late enrollment policy of late payment stayed the same under the CMS hold-harmless policy in 2016 if enrollees' income is under $85,000 per year. If beneficiaries' annual income exceeded $85,000 per year, then the beneficiary needed to pay an additional monthly income adjusted premium rate in addition to the regular monthly premium rate and LEP charge if they missed an IEP, as shown in Tables 1 and 2.

Chapter 3, the methodology chapter, outlines the collection of survey data, location, recruitment, target population, survey questionnaire instrumentation, and the statistical analytical method for how to determine and predict the likelihood coefficient value in my study.

Chapter 3: Research Method

Introduction

The purpose of my quantitative study was to explore Part B enrollees' awareness, consumer selection stress, and Part B beneficiaries' annual income as predictors related to the likelihood coefficient values of the LEP classification. These related to the likelihood coefficient values of the LEP incurred by senior citizens residing in a suburban city in a northeastern state. In this chapter, I describe the research methods. The chapter is divided into six sections: research design and rationale, methodology, data analysis plan, threat to validity, ethical concerns, and chapter summary.

Research Design and Rationale

I used a quantitative, nonexperimental approach with an explanatory design to determine the likelihood coefficient values of Medicare enrollees' awareness, consumer selection stress, and annual income level as predictor variables. I used a researcher-created survey to collect information through self-administration questionnaires, which I distributed personally to participants. The LEP charges classification was the dependent variable. I used the Perceived Stress Scale (PSS), a publicly published instrument, to measure participants' stress levels (see Cohen, Kamarck, & Murmelstein, 1983). I used the trait Mindfulness Attention Awareness Scale (MAAS), also a publicly published instrument, to measure participants' awareness (see Brown & Ryan, 2003). Participants' income was measured using the government defined 2016 U.S. Census Bureau survey questionnaire income bands. Participants self-reported options from 11 income brands. I studied these three independent variables' likelihood coefficient values together with the

LEP to see whether these values are associated with LEP assessment and, if so, what predictive relationships might exist.

The research design was a nonexperimental research study using a correlational approach with an explanatory design. The connection between a correctional approach and the probability of likelihood coefficient values of Medicare enrollees' Part B awareness, consumer selection stress, and Medicare enrollees' income predicted the LEP classification. I used this quantitative, nonprobability sampling research design to explore the variables both systematically and mathematically with the purpose of explaining and performing the test with the preexisting theories (see Creswell, 2009, 2013). My quantitative research type enabled me to obtain information through the survey questionnaire that will measure Medicare beneficiaries' enrollment awareness against a specific occurrence in the environment.

I provided participants with a descriptive, exploratory survey questionnaire. They answered questions based on their knowledge and skills, behavior, opinions, and abilities. The survey questionnaire of Medicare enrollees' awareness, consumer selection stress, income level, and educational background was also an effective research tool. I collected data from May 29, 2018 to July 28, 2018. I only included participants aged 65 and older who are Medicare beneficiaries living in my study city.

Methodology

In my study, I encompassed the use of a modified survey questionnaire specifically designed to evaluate four variables: three predictors (Part B enrollment awareness, consumer selection stress, and enrollee income in 2016) and one outcome

(LEP) in Part B enrollees. Convenience sampling was used to enroll participants and, using SPSS v. 24, I conducted logistic regression analysis to calculate the likelihood coefficient values between my variables.

Population

The population for my study was Part B enrollees who self-identified as Part B enrollees and who resided in a suburban city in a northeastern state. Klees et al. (2016) estimated that there are 51 million Part B enrollees in the United States. There were 740,000 Part B enrollees who missed the IEP due to misunderstanding and confusing policies (see Sanders, 2014). In my study city, there were an estimated 7,131 people aged 65 and older enrolled in the Medicare program (The Henry J. Kaiser Family Foundation, 2016).

Sampling Method

I obtained the sample for my research study by using a nonprobability convenient sampling method among senior citizens who live in in my study city. Potential participants were recruited from local fitness centers and the public library. I completed the sampling process using six steps. First, I obtained the sample for my research study by using a nonprobability convenient sampling method among senior citizens who reside in the study city. To be qualified as a participant in my study, persons must be aged 65 or older and enrolled in Part B. I placed the demographic questions first in the survey to filter out ineligible participants based on age and Medicare enrollment status requirements. Additionally, a convenient sampling technique was applied to seek additional qualified participants externally to the initial recruitment sites. I approached

potential participants outside and/or inside community fitness centers and the local public library.

Second, I determined, based on oral interview, if the potential participant met my study inclusion criteria, specifically 65 years and older and enrolled in Medicare Parts A and B. Once I established the participant as meeting these criteria, I moved to Step 3. If inclusion criteria were not met, I thanked the individual for their time and concluded the interaction.

Third, for potential participants who did meet my inclusion criteria, I provided instructions for completing the survey. I allowed participants 30 days to complete the survey and asked them to return the survey using a provided U.S. Postal Services pre-addressed stamped envelope. Other options to return a completed survey included having the participants complete the survey at the recruitment location on the day of distribution, or to hand deliver the completed survey directly to me within the 30 days during the data collection period at the same recruitment locations. Fourth, I collected and counted all the completed survey forms. The collected samples did not meet my prospective sample size, 120 within an initial 30 days, therefore, I redistributed the survey questionnaire in person at the same locations for another 30 days following the same recruitment principles. I received my required minimum sample size at 126 (14 incomplete samples), using the identical distribution location, completion, and collection processes described above. Fifth, I transferred all paper survey responses to SPSS for statistical analysis. Once data entries were checked for completion, the paper survey responses were shredded. I stored the SPSS data using a password-protected computer and a discreet file name. Sixth, and

finally, my research findings were recorded in my dissertation and will be disseminated through manuscript submission to refereed health or public policy journals. Participants who wished to have a summary of my research findings were asked to provide a valid email address on a separately provided form and I emailed the results to participants within 30 days of dissertation approval (see Appendix A). No participants selected this summary results option.

Sample Size

According to 2016 CMS data, the total estimated enrollment in Medicare in the United States was 51,323,027. This population was my research study's theoretical population. My study population of those enrolled in Medicare in Massachusetts was 1,160,351; the sample frame population enrolled in Medicare in my study's county was 186,093; finally, my study's sample population of those enrolled in Medicare in my study's city was 8,445. However, I did not know how many were enrolled in Part B or how many Part B beneficiaries had been paying the LEP. My study's sample would be representative of all Part B enrollees in the study city. I used the G*Power to compute the sample size (see Faul, Erdfelder, Buchner, & Lang, 2009).

Peduzzi, Concato, Kemper, Holford, and Feinstein (1996) and Vittinghoff and McCulloch (2007) suggested that logistic regression requires a minimum sample size of 10 outcome events per predictor variable. I needed a theoretical sample size of 30 for a perfect normal curve distribution. My study had three independent (predictor) variables and a binomial dependent variable (two events: LEP and no LEP). For one event, DV –

LEP = 45, DV – no LEP = 45, and theoretical perfection = 30, the sample size (*N*) of the study estimated at 120, consistent with G*Power computations (see Faul et al., 2009).

I distributed my survey questionnaires starting initially with a 1-month data collection period. The estimated sample size of my study did not meet at 120. Therefore, I extended the recruitment procedure 30 days further as outline above. During the 60 days, I collected 126 samples that were above the estimated sample size at 120. I found 14 samples were incomplete. These incomplete samples excluded for data analysis. The final sample size ($N = 112$) was considered for statistical data analysis.

Eligibility Criteria

My study included the following specific criteria for a qualified sample. All participants needed to be enrolled in the Medicare program to qualify. Participants were at least 65 years old and enrolled in Medicare Part A. Additional requirements included the following:

- Participants were enrolled in Part B;
- Participants were physically, mentally, and physiologically able to consent to participation and able to complete the survey questionnaire in the English language;
- Participants were voluntarily willing to participate;
- Participants were of either sex or any race to participate;
- Participants allowed at least l5 minutes to complete the survey questionnaire;
- Participants lived in a suburban city in a northeastern state; self-reporting was accepted for residential identification.

Exclusion Criteria

My study excluded participants if the following criteria were met: individuals younger than 65 years old or who were not enrolled in any Medicare program, individuals who lacked English reading and writing proficiency, and individuals who did not reside in my study's city of interest.

Procedures for Recruitment, Participation, and Data Collection

I used convenience sampling for participant recruitment as described in the sample section of this chapter. Participation was voluntary, and no compensation was provided. The prospective participants considered themselves residents of both the city and county of interest in the northeastern state.

Paper-based survey questionnaires were used for data collection. Survey materials included a demographic questionnaire, the PSS modified, and the MAAS modified survey questionnaires. Participants were informed through the consenting process that their responses would be kept confidential.

Instrumentation and Operationalization of Constructs

I used modified survey instruments to collect data from the sample population. In the study, consumer selection stress, Part B enrollment awareness, and enrollee income using the U.S. Census Bureau income distribution categories served as my IVs, and each was measured using continuous data level methods. Part B late payment penalty status served as my DV and was measured using a nominal scale with responses *Yes* or *No* for participants to identify if they were in an LEP payment structure or not.

Demographic Questionnaire

A four-item demographic questionnaire instrument (see Appendix A) was used to gather information about the participants' age, gender, Medicare enrollment status (LEP; DV), and annual income (IV). Participants were instructed to circle the answer that best reflected their answers. Participants were asked to select by checking the appropriate box that corresponded with their estimated annual income using the United States Census Bureau 2016 income bands. The United States Census Bureau 2016 income bands had 10 divisions: (a) less than $10,000; (b) $10,000 to $14,999; (c) $15,000 to $24,999; (d) $25,000 to $34,999; (e) $35,000 to $49,000; (f) $50,000 to $74,999; (g) $75,000 to $99,999; (h) $100,000 to $149,999; (i) $150,000 to 199,999; and (j) $200,000 or more. I expanded and assigned coding values from 0 to 10 corresponding with participants' income variables; the lowest income range (no income) was assigned a numerical value of 0, and the highest income range ($200,000 or more) was assigned a numerical value of 10.

Medicare Enrollees' Awareness

I adopted the trait Mindful Attention Awareness Scale 15 items (MAAS-15; see Appendix C) and modified content to address the mindfulness aspects of Part B enrollment selection (see Appendix D). Brown and Ryan (2003) developed the trait MAAS-15 instrument to examine general awareness and psychological well-being related to individual experiences and individual belief differences over time. Specifically, "the MAAS is focused on the presence or absence of attention to and awareness of what is occurring in the present rather than on attributes such as acceptance, trust, empathy, or

gratitude (Brown & Ryan, 2003, p. 824). While attention to detail and situational awareness were features of normal cognitive functioning, Brown and Ryan hypothesized that one's mindfulness, i.e. their open and receptive awareness, provided contextual expansion of one's experiences, which played a role in decision-making processes (Brown & Ryan, 2003, p. 823).

Using multi-factor analyses, the trait MAAS-15 was validated and reliability was established using college students, community adults, and individuals undergoing various forms of health care delivery. Brown and Ryan (2003) reported that the reliability coefficient (Cronbach's alpha) value ranged between .80 to .90 depending on the participant make-up. The trait MAAS-15 instrument demonstrated high test-retest reliability and discriminant and convergent validity (Brown & Ryan, 2003; Carlson & Brown, 2005). The original MAAS-15 permissions (see Appendix B) for use and scale are provided in Appendices C and D.

I modified the trait MAAS-15 instrument to allow for specific focus on Part B enrollment awareness within the past calendar year using the same six-point Likert-like scale measured as continuous level data (1 = *almost always*, 2 = *very frequently*, 3 = *somewhat frequently*, 4 = *somewhat infrequently*, 5 = *very infrequently*, and finally 6 = *almost never*). Brown and Ryan (2003) hypothesized that higher mean scale scores were related to enhanced (higher) mindfulness in decision-making processes. Given the use of some alternative question wording directing participants to a specific point of remembrance (Part B enrollment), instrument reliability needed to be re-established using Cronbach's alpha in *post hoc* analysis procedures. The Cronbach's alpha coefficient

value of the modified MAAS-15 items was .975. The modified MAAS-15 scale is included in Appendix D.

Consumer Selection Stress

To evaluate consumer selection stress in relation to Part B enrollment procedures, I adopted and modified the Perceived Stress Scale developed by Cohen, Kamarck and Mermelstein (1983), which they termed "a brief and easy-to-use instrument to measure the degree to which situations in one's life were appraised as stressful" (p. 394). More specifically, Cohen et al. (1983) developed the PSS to measure an individual's general perceived stress appraisal related to life situations such as stress related to the utilization of health services and individual decision making. The PSS asked participants to respond to a 14-item questionnaire, further refined to a 10-item version, with responses measured using a five-point Likert-like scale (0 = *never*, 1 = *almost often*, 2 = *sometimes*, 3 = *fairly often*, and finally 4 = *very often*). Positively worded items (questions 4, 5, 7, and 8) required reverse response scoring prior to computing individual mean scores.

Cohen et al. (1983) hypothesized that higher mean scores represent higher stress levels and lower mean scores represent lower stress scores. Instrument coefficient reliability testing in various community participant groups consistently yielded acceptable reliability values of .84, .85 and .86 (Cohen et al., 1983) and, more recently, coefficients in older adults, those reflective of my intended participants, were found to be sufficient (0.83, 0.81, 0.82; Ezzati, Jiang, Katz, Sliwinski, Zimmerman, & Lipton, 2013). A four-item version of the PSS-14 and PSS-10 (PSS – 4) was developed to aid data collection during telephone surveys (Cohen & Williamson, 1988) and consideration was

given to utilize this tool rather than the extended 10 and 14 item version. Reliability coefficients were marginally acceptable (.60); therefore, I chose to retain the larger factor survey instrument (PSS – 10) for this research. The original PSS-10 permissions (see Appendix E) for use and an original (see Appendix F) and modified (see Appendix G) scale are included.

I modified the trait PSS-10 instrument (see Appendix G) to specifically focus on Part B enrollment awareness at the time of enrollment selection using the same five-point Likert-like scale measured as continuous level data (0 = *never*, 1 = *almost often*, 2 = *sometimes*, 3 = *fairly often*, and finally 4 = *very often*). Given the use of some alternative question wording directing participants to a specific point of recollection (Part B enrollment) instrument reliability needed to be re-established using Cronbach's alpha in *post hoc* analysis procedures. The Cronbach's alpha coefficient value of the modified PSSS-10 items was .927. The modified PSS-10 scale is included in Appendix G.

Part B Late Enrollment Penalty Classification

A participant's LEP status was classified as a binomial dependent variable coded as LEP *enrolled* (1; yes, paying late enrollment penalties) and LEP *not enrolled* (0; no, not paying late enrollment penalties). If the answers to demographic question 3 was no, then the participant was disqualified from the study.

Data Collection and Analyses

My research study was approved by the Walden University IRB (05-02-18-0577812) on May 2, 2018. I collected my study data using modifications to publicly-published survey questionnaire instruments, MAAS-15 (see Appendix D) and PSS-10

(see Appendix G), and a constructed demographic instrument (see Appendix A) during in-person meetings with qualified participants in the study city. Handwritten questionnaire answers were then transferred to SPSS v. 24 for multivariate analysis to include the primary statistic of logistic regression. My community partners did not wish to have a summary of my study results, they did not complete the summary results request form and provided a valid email address (see Appendix A).

Research Study Variable Mapping

I mapped independent and dependent variables as shown in Figure 1. There are 2 events for late enrollment penalty outcome variable (Yes LEP or No LEP).

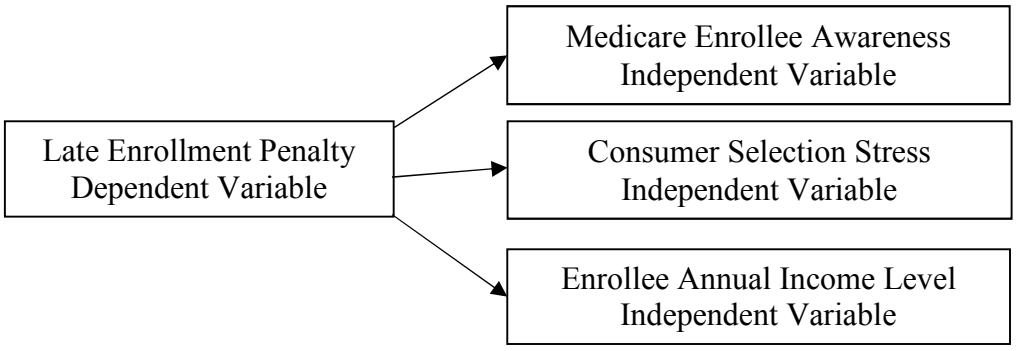

Figure 1. Mapping of research question dependent and independent variables.

Research Question, Hypotheses, and Analysis

My research study was quantitative and cross-sectional, using the following quantitative research question:

RQ: What is the likelihood that Part B enrollment awareness, consumer selection stress, and enrollee income levels predict Part B enrollee late penalty classification?

$H_0$1: Part B enrollment awareness, consumer selection stress, and enrollee income levels do not significantly increase the likelihood of enrollee late penalty classification.

$H_1$1: Part B enrollment awareness, consumer selection stress, and enrollee income levels significantly increase the likelihood of enrollee late penalty classification.

Threat to Validity

I used modified versions of the MAAS-15 (Brown & Ryan, 2003; see Appendix D) and PSS-10 (Cohen et al., 1983; see Appendix G) instruments to create my research questionnaire. These question modifications were anticipated to measure Medicare enrollees' feelings and thoughts as well as consumer selection stress when considering Part B enrollment processes. Taking into consideration that instrument modification may alter both validity and reliability, I employed the following measures to support each concept for this study's design.

External Validity

My study was a representative subset of the total population of approximately 51 million senior citizens enrolled under the Part B plan (Klees et al., 2016). From this total population, I conveniently sampled only 112 qualified participants once IRB approval was received. The external threats to my study's validity were people, place, and time. External validity means the degree to which the empirical results of my study can be generalized in terms of study participants, setting, and time. I mitigated the external threat to my study and facilitated completion of the survey questionnaire by providing clear instructions on how to complete the form, providing pens or pencils, including self-address stamped envelopes for those who wished to complete the survey at another time,

reminding participants to return the survey, and providing participants with my contact information for any follow-up questions.

Internal Validity

To help reduce threats to internal validity, participants needed to meet the minimum inclusion criteria. Participants were provided with full instructions for how to complete the survey questionnaire and offered instructions on how to reach me to answer questions or clarify content if they wished to complete the survey at another time or location. My study's internal validity was supported using two valid and reliable instruments, modified MAAS-15 and modified PSS-10 to which I made descriptive language changes to focus on Part B inquiries. As previously discussed, these modified instruments underwent post hoc coefficient testing once the data collection process concluded to determine the degree to which reliability was retained from the originally designed instruments.

Ethical Concerns

I assured the participants that their responses would be secured, and their privacy protected. I explained the purpose of my research study and its capacity to benefit senior citizens. Through the consenting procedure, I informed participants that their paper responses were confidential; I did not ask participants to sign the consent form. After transferring data into SPSS v. 24 and ensuring that responses were complete, I destroyed all participant questionnaires by shredding. The SPSS data was stored using a password-protected computer and a discreet file name. These data remained in my sole possession. After the completion of my dissertation, I transferred the data onto an encrypted,

password-protected thumb drive and stored it securely. Output files from the main computer were encrypted and deleted in a secure manner. If my community partner wished to have a summary of my study results, they were asked to complete the summary results request form and provide a valid email address (see Appendix A). After 5 years, I will destroy the thumb drive through incineration.

Summary

In this study, I sought to explore the likelihood coefficient values among Part B enrollees' awareness, consumer selection stress, and income in relation to the Part B LEP classification. I used modified MAAS-15 and PSS-10 instruments to measure awareness and stress, and demographic questions to facilitate income data collection from qualified participants in my sample. I used a logistic regression analysis to evaluate the likelihood coefficient values among the variables by using the SPSS software. The results of my study are described in more detail in Chapter 4.

Chapter 4: Results

Introduction

The main purpose of this quantitative study was to explore Part B enrollees' enrollment deadline awareness, consumer selection stress, and annual income (IVs) as predictors for Part B LEP classification (DV) among senior citizens residing in the study city of a northeastern state. I obtained qualified participants for my study through convenience sampling of eligible persons who lived in the study. My guiding research question was as follows: What is the likelihood that Medicare Part B enrollment awareness, consumer selection stress, and enrollee income levels predict Part B enrollee late penalty classification?

In this chapter, I first address the purpose of my study in connection with the research question and hypothesis, then provide a discussion of data collection and time frame, response rates, a descriptive and demographic characteristic of the sample, and a presentation of results with data analysis methods including descriptive and inferential statistics based on binary logistic regression. For the purposes of this study, I employed two previously published instruments and slightly modified these to better address Part B consumers' feelings and perspectives. The actual recruitment process, time frame of data collection, and response rate are described in detail in the following section.

Data Collection

Descriptive Statistics

Data collection transpired between May 29, 2018 and July 28, 2018. During this time frame, I approached 198 participants; 126 agreed to participate and respond by

completing and returning the survey instrument. Fourteen surveys (11.1%) had incomplete responses, and, therefore, I excluded them from this study. One hundred and twelve participants (89.9%) provided completed survey responses and were included for data analyses. My final sample size (*N*) for data analyses was 112, slightly below the 120 threshold described in Chapter 3. My participant recruitment and data collection procedures did not require any procedural modifications.

The population of those aged 65 and above in the study city numbered 8,301 or 14.5% of the city's total population of 57,180. Data from the 2016 census reported that the county's population was 40.2% male and 59.8% female (The United States Census Bureau, 2016). Male and female participants represented 76.8% and 23.2%, respectively, illustrating a gender ratio divergence from that of the study city's population. There were 53.6% more male participants than female participants in my final sample. One reason for the lower percentage of female participants was that fewer women than men were present at recruitment locations such as physical fitness centers. Participant age groups of 65 to 74 (58%), 75 to 84 (34.8%), and 85 to 94 (7.1%) compared more favorably with 2016 study city census age distributions using the same age brackets and respective percent distributions of 50.2%, 33.5%, and 16.3%. Table 4 provides a detailed illustration of descriptive variables in terms of frequency and percentage.

Table 4

The Descriptive Frequencies of the Medicare Part B Participants

Descriptive variables	Frequency	Percentage
Gender		
Male	86	76.8%
Female	26	23.2%
Total	112	100%
Age		
65-74 Years	65	58%
75-84 Years	39	34.8%
85-94 Years	8	7.1%
Total	112	100%
Medicare Part B enrollment penalty		
No	98	87.5%
Yes	14	12.5%
Total	112	100%
Identify your 2016 annual income		
$10,000 - $14,999 (2)	1	0.9%
$15,000 – $24,999 (3)	1	0.9%
$25,000 - $34,999 (4)	14	12.5%
$35,000 - $49,999 (5)	19	17%
$50,000 - $74,999 (6)	36	32%
$75,000 - $99,999 (7)	27	24%
$100,000 –$149,999 (8)	13	11.6%
$150,000 - $199,999 (9)	1	0.9%
Total	112	100%

The U.S. Census Bureau (2016) reported the median annual income of my study city's residents at $79,607 (calculated based on a 5-year average) and the median income grouping for my participants was $50,000 to $74,999, slightly below the resident median for a similar time period. Lastly, 87.5% participants reported "No Part B LEP" and 12.5% reported "Yes LEP" in response to Demographic Question 3.

Results

Research Variable Assumptions

In order to assess and accept statistical findings from my research, certain regression assumptions needed to be assessed prior to conducting the regression models and subsequent interpretations. I assessed the distribution normalcy of participant responses in both modified instruments, the correlation coefficients of the variables to evaluate for potential influencing factors of multicollinearity, the completeness of DV scoring, and finally, reliability of my text-modified research instruments.

Independent variable normalcy. Table 5 displays the argument for assumptions to illustrate that data are conforming to a normal curve and are not clustered or widely distribute to the point that regression assumptions would be violated. Munro (2005) offered that +/- 2.00 is the threshold parameters consistently used for analyses of skew and kurtosis, and my computed skew and kurtosis values for both modified instruments did not violate either threshold value; therefore, an assumption of IV normality has been assumed.

Table 5

Medicare Part B Participants' Mean Scores

		Stress Mean score	Awareness Mean score
N	Valid	112	112
	missing	0	0
Mean		2.4464	3.7095
Std. Deviation		1.01856	1.33636
Skewness		-.833	-.129
Std. Error of Skewness		.228	.228
Kurtosis		-.050	-1.099
Std. Error of Kurtosis		.453	.453
Range		4.00	4.87

Table 6

Correlation Coefficients of the Inferential Study Variables

Variables	Stress Mean score	Awareness Mean score	2016 estimated annual income	Medicare Part B LEP
Stress Mean score	1			
Awareness Mean score	-.371**	1		
2016 annual income	.209*	-.118	1	
Medicare Part B LEP	.300**	-.361**	.016	1
N	112	112	112	

Note. *Correlation significant at 0.05 level (2-tailed); **Correlation significant at the 0.01 level (2-tailed)

Pearson's correlation coefficient. I then constructed a Pearson's correlation coefficient matrix (see Table 6) to evaluate the strength of correlation, if any, between my study variables. Polit and Beck (2004) offered that predictor variables that are highly

correlated offer little predictive strength of the outcome and illustrate multicollinearity.

Awareness and stress mean scores were identified as significantly, inversely correlated (r = -.371) and stress illustrated a significant positive correlation with self-reported income (r = .209). Both stress (r = .300) and awareness (r = -.361) illustrated medium correlation strength with Part B LEP and were further confirmed in the logistic regression model outputs. Laerd Statistics (2018) classified Pearson r values between .1 to .3 as having small strengths of association and negative r values of -0.3 to -0.5 as medium strengths of association. Given that no correlation values were computed as large or above the midpoint of the medium strength parameters, I assumed that multicollinearity is not a factor influencing my logistic regression models.

Dependent variable. Part B participants' responses to Demographic Question 3 was a dichotomous DV. Ninety-eight participants responded No LEP (0; 87.5%), and 14 participants responded Yes LEP (1; 12.5%).

Cronbach's alpha assessment. I performed a *post hoc* test to evaluate the Cronbach's alpha coefficient value of my modified instruments. The Modified PSS (IV) has 10 items and its Cronbach's alpha coefficient value was .927. The Modified MAAS (IV) has 15 items, and its Cronbach's alpha coefficient value was .957. Both modified instruments demonstrated high reliability in their modified form exceeding a value of .70, the standard convention for acceptable instrument reliability (Brown & Ryan, 2003). My third independent variable, annual income in 2016, were self-reported values and did not require any *post hoc* modifications.

Inferential Statistics

Having established that the required assumptions for regression modeling were sufficiently met, I then proceeded to organize and conduct logistic regression using a *Forward:LR* modeling technique. Fields (2009) stated that when no previous research has been conducted to offer which, if any, reliable predictors to expect, a SPSS forward model function is an appropriate approach. My null hypothesis -- Part B enrollment awareness, consumer selection stress, and enrollee income levels do not significantly increase the likelihood of enrollee late penalty classification -- served as the basis for my regression output analyses.

Logistic regression. Using SPSS *v.* 24, a binary logistic regression analysis was constructed using a 3-step forward model approach. My three IVs included awareness and stress, which entered the model as continuous level data, and 2016 self-reported annual income, which entered the model as categorical level data. Tables 7 and 8 display the model classifications, which serve two purposes. First, they are a reminder illustration of my DV coding, necessary for interpretation, and secondly, these tables illustrate SPSS classification functionality that maximizes model predictions in which most observations fell, no LEP. As illustrated, the regression model has overall correctly classified the presence or absence of Part B LEP in 87.5% of participants and similarly ranging between 86.6% to 92% as the steps advance (see Table 8).

Next, I examined the logistic regression model in a stepwise fashion beginning with an assessment of the Hosmer-Lemeshow goodness-of-fit output. This computation is specific to logistic regression and is used to evaluate how well the data fits the regression

model. Significance values great than 0.05 are indicators of a good model fit (Field, 2009). Table 9 illustrates all values are significantly larger than 0.05.

Table 7

Classification Table Initial Model

Observed			Predicted		
			Medicare Part B late enrollment penalty		Percentage correct
			No LEP	Yes LEP	
Step 0	Medicare Part B late enrollment penalty	No LEP	98	0	100.0
		Yes LEP	14	0	.0
	Overall percentage				87.5

Note. No LEP = 0; Yes LEP = 1

Table 8

Classification Table Full Model

Observed			Predicted		
			Medicare Part B late enrollment penalty		
			No LEP	Yes LEP	Percentage correct
Step 1	Medicare Part B late enrollment penalty	No LEP	97	1	99.0
		Yes LEP	13	1	7.1
	Overall percentage				87.5
Step 2	Medicare Part B late enrollment penalty	No LEP	94	4	95.9
		Yes LEP	11	3	21.4
	Overall percentage				86.6
Step 3	Medicare Part B late enrollment penalty	No LEP	94	4	95.9
		Yes LEP	5	9	64.3
	Overall percentage				92.0

Table 9

Hosmer and Lemeshow Test

Step	Chi-square	*df*	Sig.
1	4.765	8	.782
2	9.270	8	.320
3	3.228	8	.919

Step 0 of my regression model included an output assessment of all variables in the equation as well as the model summary output. These outputs are presented in Tables 10 and 11. Step 0 is the computed values of the constant without the influence of my predictor variables. Table 10 illustrates that the coefficients of the variables not included in Step 0 are significantly greater than zero indicating that the planned addition of predictor variables in subsequent Steps will influence the regression's predictive power.

Table 10

Variables in the Equation

		B	S.E.	Wald	*df*	Sig.	Exp(*B*)
Step 0	Constant	-1.946	.286	46.385	1	.000	.143

Table 11 illustrates the summary statistics of my new regression model in which predictor (interventions) have been added. The -2 Log likelihood of my initial model (Step 0) was 87.117. With the addition of my interventions each -2 Log likelihood has an output value lower than my initial model, thus indicating that my model is predicting my outcome variable with greater accuracy (Field, 2009).

Table 11

Model Summary

Step	-2 Log likelihoods	Cox & Snell *R* Square	Nagelkerke *R* Square
1	68.528	.132	.250
2	58.289	.208	.393
3	39.626	.330	.623

Table 12 illustrates the sequential *Forward:LR* Steps 1 through 3 where Step 1 includes awareness alone, Step 2 includes awareness and stress, and Step 3 includes all predictors variables considered by my hypothesis testing. Steps 1 and 2 illustrate the predictors individual parameter estimates, both illustrating significance in their individual (awareness) and combined (awareness and stress) interventions. Step 3 of the regression model illustrates the parameter estimates of all three predictor variables of interest for evaluation of my null hypothesis.

When interpreting the significant predictors in Step 3, two rules were imperative for interpretation: (1) when the Odds Ratio, illustrated by column Exp(*B*), is greater than 1 it indicates a positive relationship; thus a higher number for the predictor indicates the coded value for 1 (Yes LEP) in my outcome; and (2) when the Odds Ratio is less than 1 it indicates a negative or inverse relationship; thus a higher number for the predictor indicates the coded value for 0 (No LEP) in my outcome. Using these rules as an interpretive guide, awareness illustrated a significant, negative likelihood of predicting

Part B LEP (b = -1.21, Wald $\chi^2(1) = 7.56$, OR = .298, p = .006, CI [.126, .707]. Best stated, as Part B enrollment awareness increased the likelihood of being in a LEP decreased. Participants being more aware of the need to enroll in Part B were 3.4 times more likely to have no LEP compared to those participants who lacked enrollment requirement awareness.

Stress illustrated a significant positive likelihood of predicting Medical Part B LEP (b = 2.16, Wald $\chi^2(1) = 6.29$, OR = 8.678, p = .012, CI [1.60, 46.99]. Best stated, as Part B enrollment stress increased the likelihood of being in a LEP increased. Participants who reported higher stress were 8.7 times more likely to have enrolled for M Part B late than those participates with lower stress, thus a lifetime of LEP payments. Annual income figures for 2016 were not significant in the logistic regression model, thus income had no predictive relationship with the presence or absence of Part B LEP.

Having concluded my logistic regression outputs and interpretation, I have rejected my null hypothesis in favor of the alternative hypothesis for awareness and stress as both significantly increase the likelihood of late penalty classification with awareness being an inverse predictive relationship. Furthermore, I have retained my null hypothesis for income as it was not found to be a significant predictor for the likelihood of enrollee late penalty classification greater than chance.

Table 12

Variables in the Equation

								95% CI for Exp(*B*)	
		B	S.E.	Wald	*df*	Sig.	Exp(*B*)	Lower	Upper
Step 1[a]	Awareness	-.999	.297	11.308	1	**.001**	.368	.206	.659
	Constant	1.160	.839	1.910	1	.167	3.190		
Step 2[b]	Awareness	-1.000	.339	8.704	1	**.003**	.368	.189	.715
	Stress	1.688	.658	6.577	1	**.010**	5.408	1.489	19.648
	Constant	-3.835	2.196	3.049	1	.081	.022		
Step 3[c]	2016 annual income			10.159	7	.180			
	2016 annual income (2)	-4.160	56841.45	.000	1	1.000	.016	.000	.
	2016 annual income (3)	-2.019	56841.45	.000	1	1.000	.133	.000	.
	2016 annual income (4)	12.458	40192.98	.000	1	1.000	257382.11	.000	.
	2016 annual income (5)	-8.255	40928.80	.000	1	1.000	.000	.000	.
	2016 annual income (6)	7.889	40192.98	.000	1	1.000	2666.713	.000	.
	2016 annual income (7)	9.651	40192.98	.000	1	1.000	15531.98	.000	.
	2016 annual income (8)	11.122	40192.98	.000	1	1.000	67617.171	.000	.
	Awareness	-1.210	.440	7.556	1	**.006**	.298	.126	.707
	Stress	2.161	.862	6.287	1	**.012**	8.678	1.603	46.992
	Constant	-14.726	40192.988	.000	1	1.000	.000		

Note. [a]Variable(s) entered on step 1: Awareness Computed Mean Score; [b]Variable(s) entered on step 2: Stress Computed Mean Score; [c]Variable(s) entered on step 3: Identify your 2016 estimated annual income. **Significant values bolded**.

Summary

In this study, I examined the likelihood of predicting Part B LEP using three predictor variables (awareness, stress, and 2016 income). Using a sequential Forward: LR methodology, awareness inversely (OR 3.4) and stress positively (OR 8.7) predicted the likelihood of Part B LEP classification. Self-reported 2016 income was not significant as a predictor variable in the logistic regression model. In Chapter 5, I will present a detailed discussion of my findings, as well as study limitations, recommendations for future research, implications for social change, and conclusions.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of my nonexperimental, quantitative study was to explore likelihood prediction among the IVs of awareness, stress, and estimated annual income in 2016, in relation to the dichotomous DV of Part B LEP classification in a suburban city in a northeastern state. I employed a demographic questionnaire with two modified, publicly published instruments: a modified PSS instrument measure of perceived stress and a modified MAAS instrument measure of decision-making mindfulness among volunteer participants aged 65 years old and above. I recruited participants from local physical fitness centers and the public library.

Sanders (2014) observed that approximately 740,000 individuals missed Part B enrollment in the United States in 2012. The lack of understanding of the enrollment application process and miscommunication about Part B enrollment periods subjected them to paying lifetime Part B LEP of 10% or more. These Part B LEP charges have resulted in additional financial stress and a coverage gap for the remainder of the M Part B enrollee's life (Sanders, 2014).

Schneider and Ingram's (1993) SCT of public policy as applied to senior citizens (targeted population group) regarding Part B late enrollment consequences served as the lens through which I examined LEPs in my local population. My study was conducted to measure senior citizens' awareness, stress, and annual income in 2016 to investigate if any predictive correlations existed between eligible participants and their individual Medical Part B enrollment activities. I provided my study participants with a

demographic questionnaire and two modified instruments in order to gather response data.

Over a 60-day period, I collected response data from 126 participants through face-to-face meetings or by giving the survey questionnaire to eligible participants and asking for it to be returned through the United States Postal Service using the provided self-addressed stamped envelope. I received 112 fully-completed surveys, a sufficient response rate for my selected statistics; however, 14 incomplete responses were disqualified and excluded from final data analysis. Using a binary logistic regression, I found that awareness and stress illustrated significant likelihoods of predicting Part B LEP classification, but the estimated annual income in 2016 was not found to be significant in the logistic regression model.

This chapter includes the interpretation of findings, limitations of the study, implications of the study for positive social change, recommendations for future research, and a concluding summary.

Interpretation of Findings

Sanders (2014) contended that many seniors struggle to understand Medicare enrollment periods, benefits, rules, and late enrollment penalties. Using Sander's position regarding Part B enrollment complexities, I hypothesized that awareness, stress, and personal income may be key elements for why late enrollment may be happening in my local community for Medicare eligible enrollees. My study findings support that significant predictive relationships do exist, and they may offer possible solutions for future enrollment policy changes.

Significant Findings

Awareness computed scores. Sanders (2014) and Klee et al. (2015) found Part B enrollees' awareness in terms of educational resources and early notification and federal government's communication system with Part B eligible individuals to be a confusing process. Whereas Medicare Part A is an automatic enrollment process upon turning 65 years old, Part B is a voluntary enrollment process requiring active enrollment participation with specific enrollment deadlines applied. Individuals who miss these enrollment deadlines are then subjected to lifetime enrollment penalties in their monthly Part B premiums. Sanders (2014) and Trivedi (2016) both offered that improvements to Part B participants' understanding of decision-making processes could be beneficial in protecting them from mental and financial risks.

Klees et al. (2015) addressed Medicare coverage beginning date, enrollment during GEP and suggested that enrollees missed enrollment at the IEP because of confusing CMS enrollment policies. Sullivan (2015) opined that Part B enrollment process has proved difficult, and enrollees' misunderstandings can cause them additional cost. Part B enrollees who have more awareness as to the need to actively, rather than passively, enroll and specific enrollment date rules are more likely to avoid Part B LEP, which can minimize any Part B coverage gap and reduce monthly benefit cost penalties (Moeller, 2016; Sullivan, 2015).

My study provides evidence that participants who scored higher in mean awareness were 3.4 times less likely to have Part B LEP status than those participants who had lower awareness scores. Increased awareness of Part B enrollment needs is

congruent with previous findings on Medicare enrollees understanding enrollment resources needs as well as their recollection habits when it comes to enrolling on time (Moeller, 2016; Sullivan, 2015).

Sanders (2014), a Medicare rights center federal policy director, suggested fixing fragmented Medicare enrollment policies by educating seniors who are close to eligibility, streamlining enrollment, and simplifying the enrollment process. No Part B LEP was reported in 87.5% of my participants (Table 7), leaving 12.5% with reported LEP status. As evidenced by my participants' responses, policy and process work is still needed regarding eligibility awareness, streamlining Part B active enrollment processes, and adopting a heightened awareness campaign prior to and during the open enrollment period for benefit eligible persons.

Stress computed scores. Health insurance plan selection processes depend on consumer buying behaviors and their personal choices and are often influenced by household family members and friends. Consumers often prefer healthcare plans with easy-to-understand language and bundled products such as plans that combine dental, vision, and healthcare in order to lessen copayments and claims submission paperwork (Greene et al., 2016; Guest & Quincy, 2013). Moorman and Matulich (1993) and Sommer (2014) argued that consumers often become overloaded and exhausted in decision-making processes for complex purchases, of which enrollment in Medicare products could be classified. Chakraborty et al. (1994) offered that consumers who were selecting insurance plans were often stressed due to the variety of products offered, complexity of product language, and market competition; the initiation of the Affordable

Care Act has not lessened these concerns due to enrollment complexities. As previously mentioned, Medicare Part A is an automatic, passive enrollment process that coincides with age of Social Security eligibility; Part B requires active enrollment.

Reid et al. (2016) analyzed consumer decision making for insurance plan costs, specifically Medicare replacement programs, and found lower copayments, better quality rankings, enhanced benefit offerings, and options for higher quality heather care providers to be key drivers in their predictive regression models. Kirby and Camron (2016) supported the concept of consumer selection behaviors being tied to the health provider's brand name, consumer's ability to choose, and available options for price comparison and self-selection. Sanders (2014) found confusion and misunderstanding concerning Part B enrollment policies to be significant contributors to late enrollment, thus lifetime LEP status.

Furthermore, Berman (2013) offered that social scientists have focused on policy paradigms, social learning experiences, Medicare enrollment, and premium policies and suggested that these are political outcomes that impact both quality and cost of Medicare. Altman and Frist (2015), from the Harvard School of Public Health, conducted a 2013 study of seniors enrolled in Medicare, and found that 70% of respondents reported favorable ratings for the entirety of the Medicare program. These evidence sources support the ongoing need for consumer-driven and consumer-directed enrollment activities for all Medicare programs with specific focus on those who require active enrollment, such as Part B.

As previously described, Part B enrollment processes are complicated and require active selection; therefore, consumers' behavior and skill play important roles, and better consumer selection behaviors corresponded with lower stress in the decision-making process (Chakraborty et al., 1994; Moorman & Matulich, 1993). Korobkin (2014), Naci et al. (2014), and Sommers et al. (2015) emphasized the importance of Medicare plan selection and consumer understanding of the application process and timeline for Part B enrollment periods. Each of these authors provided evidence for my hypothesized relationship of consumer selection stress being an important factor for selecting and enrollment in healthcare plans, Part B included. Focusing on stress as an IV in my study and using a modified stress scale instrument, I found evidence that participants who scored higher in mean stress were 8.7 times as likely to be in a Part B LEP status than those who reported lower stress levels.

Awareness and stress as significant model predictors. Given the evidence that both consumer awareness and stress play significant roles, individually and combined, in selection of health insurance plans, I conducted this *a priori* study by using a convenience sampling approach to specifically explore Part B LEP status among participants in a suburban city in a northeastern state. The significance of these two IV in my logistic regression models provided evidence to reject the null hypothesis in favor of my alternative hypothesis that awareness and stress significantly increase the likelihood of enrollee late penalty classification. Local Part B enrollees who reported higher awareness and lower stress scores were less likely to be classified as having a Part B LEP

status and those who reported less awareness and more stress were found to be more likely to be classified as having a Part B LEP.

Insignificant Findings

Estimated annual income in 2016. As a third IV, I sought to investigate if self-reported income had a predictive relationship with Part B enrollment status. Eight of the 11 possible income categories had participant data submitted, and seven categories met threshold criteria to be used in the logistic regression model. The resulting *p*-value of .180 is greater than the critical threshold *p*-value of .05; thus, income was concluded to not be a significant predictor of Part B LEP status. For this specific IV, I retained the null hypothesis that income does not increase the likelihood of enrollee late penalty classification.

Theoretical Implications

Schneider and Ingram (1993) stated that the SCT of target population behavior is affected by the public policy process: "Policy tools refer to the aspects of policy intended to motivate the target population to comply with policy or to utilize policy opportunities" (p. 338). In this study, I used policy aspects particular to the federal government Medicare statues, CMS enrollment guidelines, CMS enrollment message and service delivery, and Part B LEP implementation actions for Medicare beneficiaries in the local community. Schneider and Ingram (1993) offered that "a theory of social constructions of target populations makes it clear that policies are not technically illogical simply because of political power consideration" (p. 345). My study findings showed that some Part B enrollees missed their required enrollment times; thus, a lifetime of LEP in part due to

their lack of knowledge concerning required enrollment periods as well as associated stress during times when their Part B for selection process was or should have been underway. Medicare Part A enrollment is a passive policy process occurring shortly before an eligible participant's 65th birthday. Part B enrollment requires active selection, and it is possible that individuals fail to enroll, having ignored or discarded enrollment mailings, assuming the policy processes for both programs are the same.

Furthermore, Schneider and Ingram (1993, p. 345) suggested that "social constructions are crucial to understanding which policies are most likely to be illogical and social impinge on all aspects of design including the section of goals, targets, tools, and implementation strategies." As described above, CMS requires separate enrollment practices for Medicare Part A and B. Some study participants' personal experience indicated a significant likelihood that being less aware and having higher stress levels affected their Part B enrollment resulting in Part B LEP. The current implementation strategy for Part B enrollment requires further policy examination. It seems inherently unfair for individuals who may have misinterpreted enrollment requirements to suffer LEP for the duration of their lives. If the LEP process cannot be eliminated entirely then adopting the standard private insurance "open enrollment" period (November of each year) as the point in which enrollment transitions to non-LEP would be an advance in social policy and a possible policy change incorporating an alternative conclusion for the illogical Part B life time penalty. For example, individuals who enroll late the requirement would be to have the LEP premium deducted for concurrent months until November open enrollment occurs at which time active enrollment to Part B occurs again

and the LEP is eliminated. This natural flow aligns with private insurance practices that the Medical recipient was most likely covered under until their Medicare enrollment age was reached.

Additionally, Schneider and Ingram (1993, p. 340) stated that "the agenda, tools, and rationales of policy impact message to target populations that inform them their status as citizens and how they and people like themselves are likely to be treated by government such information become internalized into a citizenship that influences their orientations toward government and their participants." Agendas, tools, and policy rationales are also joined with the need for citizens to internalize messages through political process observations and media coverage in addition to their direct personal experience (Schneider & Ingram, 1993). My study findings help illustrate that Part B messaging for enrollment is not effective in some individuals and opportunity for policy change is present if there is political will for the change within citizens and government.

Finally, Schneider and Ingram (1993, p. 345) stated "one of our fundamental contentions is that policies that fail to solve problems or represent interests and that confuse, deceive, or disempower citizens do not serve democracy." My study findings support that some of my study participants encountered Part B LEP, but some of them enrolled on time, thus avoiding LEP. These confusing enrollment policies of CMS disempower citizens who wish and need to enroll properly, thus a practice that is not serving democracy. Changing enrollment policies will hopefully motivate this target population and appeal to personal behaviors influenced by new social constructs.

Limitations of the Study

The limitations of my study included: Generalizability, sample size, response truthfulness, language, modifications to publicly published instruments, recruitment timing, and participant gender inequality.

Generalizability

Klees et al. (2016) offered that 51 million people were covered Part B insurance. In 2017, there were estimated 1,111,290 aged 65 or older in Massachusetts (The Henry J. Kaiser Family Foundation, 2017). According to the Census data of 2017, there were estimated 8,380 aged 65 or older people in my study city (The United States Census Bureau, 2017). My sample size, additional recruitment timing, the reliance on truthful responses, and participant's speaking, reading, and writing language were all contributing factors supporting research generalizability.

Sample Size

There were 198 surveys distributed during the face-to-face meetings. As described the recruitment procedures of participants in Chapter 3, I provided them two options. Participants could complete surveys at the face-to-face meeting at the recruitment locations or they were provided a self-addressed stamped return envelope with surveys and were asked to mail them within 30 days to be consider in my study. During my initial 30-day recruitment period, I obtained only 50% of my required sample size. I then extended recruiting for an additional 30 days using the same recruitment procedures. The combination of both participation options and the extended 60 day recruitment time helped me to achieve a total of 126 completed surveys. My study target

sample size (*N*) was 120, which was met, but 14 participant surveys contained incomplete responses and were excluded from the final statistical analysis. The final sample size (*N* = 112) was accepted for my study yielding a post hoc computed power of 0.93.

Truthful Responses

Participants were required to verbally identify themselves as study city residents and age of 65 or above and neither were verified as fact. Additionally, I assumed that all participants responded to the survey questions truthfully without the aid of other individuals providing answers, but these processes were not personally witnessed nor validated in any manner.

Language

English reading and comprehension were study inclusion requirements and questionnaires required responses in English. I did not conduct any English competency measurement activities and accepted at face value that individuals possessed these competency thresholds. Responses from individuals with less English fluency may not have illustrated true and accurate measurements for awareness and stress. Income was a straightforward response option with ranges however participants may not have been fully aware of their household income if they were not the primary household budgeter. Considering these limitations and given that my sample was obtained from only one city in one state in which Part B is available, my results may not reflect other Massachusetts cities or other state experiences where Part B LEP is present.

Modification of Instruments

I modified two previously published instruments: MAAS- 15 items Likert scale 1-6 for the IV awareness (predictor) and PSS-10 items Likert scale 0-4 for the IV stress (predictor). I employed both instruments to assess participants' feelings, attitudes, and behaviors toward their Part B enrollment processes. These instruments were not designed specifically to address Part B participants' awareness or stress around their enrollment processes and may not have accurately or fully measured these phenomena.

More specifically, the MAAS-15 items instrument was designed to measure participants' acceptance, trust, and attitude at a period in the present (Brown & Ryan, 2003). The PSS-10 items instrument was designed to assess how participants appraise life stress over the past month (Cohen et al., 1983). For my study, I adapted the MAAS-15 and the PSS-10 with some refined content to address the mindfulness aspects of Part B enrollment processes. Additionally, the MAAS-15 instrument was modified to allow for specific focus awareness within the time from starting with eligibility, which may have been several years prior to my study, rather than the instrument's temporal limitation of the "present." The PSS-10 instrument was additionally modified to focus on Part B enrollment stress at the time of enrollment selection starting with eligibility, which may have been several years prior to my study, rather than the instrument's temporal limitation of the past 30 days. Each of these time period violations may have resulted in both instruments not accurately measuring awareness or stress in Part B enrollment at the time of participant eligibility.

The reliability of both modified instruments was evaluated using the *post hoc* testing to determine Cronbach's alpha. The Cronbach's alpha values for these two modified instruments demonstrated reliability above .90. Given that a Cronbach's alpha coefficient greater than .70 is considered an acceptable standard convention for social science research (Brown & Ryan, 2003), I concluded that while some language modifications were made, and instrumentation time frames were modified the instrument reliability was sufficiently strong, thus not a study limitation per se.

Recruitment Timing and Gender Inequality

My participants were recruited primarily from fitness centers located in my study city and due to my full-time work commitments, there were primarily recruited during evening hours and on weekends. I observed that during my recruitment times less retirees were present than what might have been present during weekdays and daytime hours; therefore, my participants may not be fully representative of Part B eligible persons in my study city. Additionally, recruitment on Sundays may have excluded persons who attend religious services and family gatherings that might have otherwise been available for participation.

According to the United States Census Bureau in 2016, there were 40.1% male and 59.8% female living in the study city. Females represented only 23.2 % of my study participants compared to 76.8% for males; a ratio out of proportion to the community gender makeup. As such, females may be under-represented, and males may be over-represented in the generalization of my findings.

Recommendations for Future Research

Having a perspective regarding my study limitations, I offer the following opportunities for future research in order to more fully understand Part B LEP behaviors in Massachusetts and the wider population of Part B eligible enrollees. First, recruitment expansion beyond a single city in one state would enhance overall generalizability by increasing my sample size sufficiently to represent a total eligible population. Second, more in-depth recruiting efforts across multiple settings in which eligible persons would gather and expanding recruitment timings could increase the total number of participants. Third, I used two modified instruments (MAAS-15 and PSS-10) to establish the influence of Part B enrollees' awareness and stress. My results findings determined Part B enrollment awareness and stress influenced. The option of future research that looks to create a more specific and sensitive measurement of Part B awareness and stress at the time of enrollment would improve the strength of predictive relationships. Extending these same instruments to other languages and other insurance product enrollment processes may shed additional light on consumer awareness and stress during these vital decision-making timeframes.

Sanders (2014) suggested keeping comprehensive records of individuals' LEP, prioritizing public communication and information systems, and preventing Part B enrollment mistakes in order to enable seniors to avoid being assessed the Part B LEP. My study findings could be useful in creating more robust Medicare communication units at a city level that could provide resources and communication to future eligible Part B individual regarding enrollment time frames, penalty actions, and grassroots education on

all Medicare plan available options to include Medicare replacement programs available through private insurance. These community-based activities would help all Part B beneficiaries and future eligible beneficiaries to secure a healthy lifestyle and financial stability free from LEP due to lack of enrollment awareness or program selection stress (Sanders, 2014).

Implications for Positive Social Change

My study results could create positive social change among millions of senior citizens who are 65 years and older. The significant likelihood of awareness and stress in predicting Part B LEP classification in my study city could serve to craft information messages to legislators and policy committees and help illuminate issues inherent with Part B enrollment procedures that require active selection rather than Medicare Part A passive enrollment. By 2040 there will be 79.7 million senior citizens who will live in nursing homes and about 40% of them will need nursing home services (Madubata, 2015). Medicare is an affordable primary source of health insurance plans for these million of senior citizens, one in which they have funded throughout their working years. CMS, the United States department that administrates all Medicare programs, focuses heavily on individual education for program selection and enrollment yet Part B enrollment follows rules requiring active rather than passive enrollment selections at eligibility age. This active enrollment is an unexpected activity for enrollees and something not widely publicized. A primary goal of the CMS is to improve current Medicare enrollment periods through education (Burrell, 2015).

Individual Level

As described above, additional educational resources and better understanding of Part B active enrollment activities among senior citizens could prevent LEP. All senior citizens are living within our society and community and their contributions to the Medicare program have been ongoing since the program's inception and throughout their working life. My study findings illustrate for certain individuals that Part B enrollment procedures are either unknown or active enrollment selection stress is such that enrollment selections are submitted late with a resulting LEP for life. Advocacy for better senior citizen educational resources and a more natural, passive enrollment processes at an individual enrollee level is needed.

Community and Government Level

My study findings help illustrate and provide for legislators and policy formation committees information concerning the difficulties encountered with Part B LEP policies and practices. Advocating for passive enrollment election, as found with Medicare Part A, would eliminate Part B LEP thus reducing financial burdens for individuals who find themselves in LEP presently. Alternatives for passive enrollment include increased spending on Part B enrollment awareness campaigns, supporting non-government advocacy groups, such as the American Association for Retired Persons, to increase educational messaging, and continuing the quest for single payor, life-long insurance programs modeled after other developed countries. Community education and government level actions, some of which have been described here, that reduce stress and increase awareness during Part B enrollment periods benefits all eligible citizens.

Summary

The findings of my study provide additional information about Part B LEP likelihood as it relates to participants' awareness, stress, and annual income as predictors for the Part B LEP classification among senior citizens residing in a suburban city of a northeastern state. Sanders (2014) stated that the LEP policy of the CMS resulted in stress for senior citizens. My study findings support this claim, which suggests that the CMSs should review Part B LEP policies. I found stress and awareness of Part B enrollees to be significant predictors for the likelihood of Part B LEP classifications. Seniors citizens who are 65 years old age and above need more resources and knowledge to ensure on-time enrollment. CMS administrative commitment, revised policies and procedures, and attention of local community members and lawmakers are required in order to eliminate the Part B LEP policy and thereby ensure both healthy lifestyles and financial stability for senior citizens.

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Appendix A: Demographics Questionnaire

Please **circle** following items that best describe you:

1. Gender: (Optional) Male Female Prefer not to say
2. Age: 65-74 75-84 85-94 95 and above
3. Have you ever paid a late enrollment penalty for Medicare Part B? Yes / No
4. Please identify your 2016 estimated annual income by checking the corresponding box.

Income Range	Check Mark in Box
No Income	☐
Less than $ 10,000	☐
$ 10,000 to $14,999	☐
$15,000 to $24,999	☐
$25,000-$34,999	☐
$35,000 to $49,999	☐
$50,000 to $74,999	☐
$75,000 to $99,999	☐
$100,000 to $149,999	☐
$150,999 to $199,999	☐
$200,000 or more	☐

Request for Research Summary

I request a summary report of the research conclusions from the following research study in which I am a participant:

Exploring Medicare Part B Late Enrollment Consequences:

Complications for Senior Citizens

Upon completion of the research please email a summary report to the following email address:

Please print email address clearly

Appendix B: Mindful Attention Awareness Scale – 15 Use Permissions

VCU

Monroe Campus

Virginia Commonwealth University

Department of Psychology

[redacted]

Dear Colleague,

The trait Mindful Attention Awareness Scale (MAAS) is in the public domain and special permission is not required to use it for research or clinical purposes. The trait MAAS has been validated for use with college student and community adults (Brown & Ryan, 2003), and for individuals with cancer (Carlson & Brown, 2005). A detailed description of the trait MAAS, along with normative score information, is found below, as is the scale and its scoring. A validated state version of the MAAS is also available in Brown and Ryan (2003) or upon request.

Feel free to e-mail me with any questions about the use or interpretation of the MAAS. I would appreciate hearing about any clinical or research results you obtain using the scale.

Yours,

[redacted]

Appendix C: Mindful Attention Awareness Scale – 15 Original Scale

The Mindful Attention Awareness Scale (MAAS)

The trait MAAS is a 15-item scale designed to assess a core characteristic of mindfulness, namely, a receptive state of mind in which attention, informed by a sensitive awareness of what is occurring in the present, simply observes what is taking place.

Brown, K.W. & Ryan, R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84,* 822-848.

Carlson, L.E. & Brown, K.W. (2005). Validation of the Mindful Attention Awareness Scale in a cancer population. *Journal of Psychosomatic Research, 58,* 29-33.

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
almost always	very frequently	somewhat frequently	somewhat infrequently	very infrequently	almost never

_____ 1. I could be experiencing some emotion and not be conscious of it until some time later.
_____ 2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
_____ 3. I find it difficult to stay focused on what's happening in the present.
_____ 4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
_____ 5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
_____ 6. I forget a person's name almost as soon as I've been told it for the first time.
_____ 7. It seems I am "running on automatic," without much awareness of what I'm doing.
_____ 8. I rush through activities without being really attentive to them.
_____ 9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
_____ 10. I do jobs or tasks automatically, without being aware of what I'm doing.
_____ 11. I find myself listening to someone with one ear, doing something else at the same time.
_____ 12. I drive places on 'automatic pilot' and then wonder why I went there.
_____ 13. I find myself preoccupied with the future or the past.
_____ 14. I find myself doing things without paying attention.
_____ 15. I snack without being aware that I'm eating.

Scoring: To score the scale, simply compute a mean (average) of the 15 items.

Appendix D: Mindful Attention Awareness Scale – 15 Modified Scale

Enrollment in your Medicare Part B plan in addition to your Medical Part A enrollment required awareness and action around important deadlines. Below is a collection of general statements about your awareness of everyday experiences. Using the 1-6 scale below, please indicate how frequently or infrequently you have had these experiences within the past year. Please answer each question as it relates to your actual experiences rather than what you think your experiences should be or should have been. Please treat each item separately from every other item.

1	**2**	**3**	**4**	**5**	**6**
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

1. I could be experiencing some emotion and not be conscious of it until sometime later.

1	**2**	**3**	**4**	**5**	**6**

2. I break or spill things because of carelessness, not paying attention, or thinking of something else.

1	**2**	**3**	**4**	**5**	**6**

3. I find it difficult to stay focused on what's happening in the present.

1	**2**	**3**	**4**	**5**	**6**

4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.

1	**2**	**3**	**4**	**5**	**6**

5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.

1 2 3 4 5 6

6. I forget a person's name almost as soon as I've been told it for the first time.

1 2 3 4 5 6

7. It seems I am "running on automatic" without much awareness of that I'm doing.

1 2 3 4 5 6

8. I rush through activities without being really attentive to them.

1 2 3 4 5 6

9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.

1 2 3 4 5 6

10. I do jobs or tasks automatically, without being aware of what I'm doing.

1 2 3 4 5 6

11. I find myself listening to someone with one ear, doing something else at the same time.

1 2 3 4 5 6

12. I drive places on 'automatic pilot' and then wonder why I went there.

1 2 3 4 5 6

13. I find myself preoccupied with the future or the past.

1 2 3 4 5 6

14. I find myself doing things without paying attention.

1 2 3 4 5 6

15. I snack without being aware that I'm eating.

1 2 3 4 5 6

Appendix E: Perceived Stress Scale -10 Use Permissions

Perceived Stress Scale (PSS)

Author:	[redacted]
Date:	(Originally published) 1983
Constructs:	Child and Family Health, Family Relationships
Standardized:	Not specified
Instrument Type(s):	4-item self-report instrument with a five-point scale: (0 = never, 1 = almost never, 2 =sometimes, 3 = fairly often, 4 = very often). The PSS is also available in a 10 and 14 item self-report instrument with the same five-point scale.
Uses of Information:	The 4-item version is appropriate for use in situations requiring a very brief measure of stress perceptions. It was previously employed when collecting perceived stress levels over the phone during follow-up interviews. It is not a diagnostic instrument, but intended to make comparisons of subjects' perceived stress related to current, objective events. The higher the degree and longer the duration of self-perceived stress, indicated by a higher score, is considered a risk factor for a clinical psychiatric disorder.
Environment:	Not specified, but flexible
Description:	The short version, PSS-4, is an economical and simple psychological instrument to administer, comprehend, and score. It measures the degree to which situations in one's life over the past month are appraised as stressful. Items were designed to detect how unpredictable, uncontrollable, and overloaded respondents find their lives. The PSS-4 poses general queries about relatively current levels of stress experienced. All items begin with the same phrase: In the past month, how often have you felt…? Since the questions are of a general nature and are not directed at any particular sub-population group, using this abbreviated version (or any version) with a diverse population is predicted to yield equally reliable results.
References:	(1.) Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396. Link to full-text (pdf) (2.) Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the U.S. In S. Spacapam & S. Oskamp (Eds.), The social psychology of health: Claremont Symposium on Applied Social Psychology. Newbury Park, CA: Sage.Link to full-text (pdf) http://www.psy.cmu.edu/~scohen/
Cost:	Permission for use of the scale is not necessary when use is for academic research or educational purposes. Use of the PSS in profit making ventures requires special permission and a nominal charge. Inclusion of the scale within a larger scale that will be copyrighted also requires specific permission. For permission, send a request letter to the contact person with a self-addressed and stamped envelope enclosed.

Appendix F: Perceived Stress Scale – 10 Original Scale

PERCEIVED STRESS SCALE

The questions in this scale ask you about your feelings and thoughts during the last month. **In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.**

Name _____ Date _____

Age _____ Gender (*Circle*): **M F** Other _____

	0 = Never	1 = Almost Never	2 = Sometimes	3 = Fairly Often	4 = Very Often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Appendix G: Perceived Stress Scale - 10 Modified Scale

Enrollment in your Medicare Part B plan may have been a stressful event particularly if enrollment instructions and enrollment deadlines for this additional Medicare program were unclear. The questions in this scale ask about decision making and your feelings and thoughts within the past year.

Indicate by circling how often you felt or thought a certain way.

0	1	2	3	4
Never	**Almost Never**	**Sometimes**	**Fairly Often**	**Very Often**

1. How often have you been upset because of something that happened unexpectedly?

0 1 2 3 4

2. How often you have felt that you were unable to control the important things in your life?

0 1 2 3 4

3. How often have you felt nervous and stressed?

0 1 2 3 4

4. How often you have felt confident about your ability to handle your personal problems?

0 1 2 3 4

5. How often you have felt things were going your way?

0 1 2 3 4

6. How often have you found that you could not cope with all the things that you had to do?

0 **1** **2** **3** **4**

7. How often have you been able to control irritations in your life?

0 **1** **2** **3** **4**

8. How often you have felt that you were on top of things?

0 **1** **2** **3** **4**

9. How often have you been angered because of things that were outside of your control?

0 **1** **2** **3** **4**

10. How often have you felt difficulties were piling up so high that you could not overcome them?

0 **1** **2** **3** **4**