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Healthcare Literacy Strategies to Mitigate Healthcare Utilization and Rising Costs

STELLA OBIAGELI MADUKA
Walden University

Walden University

College of Management and Technology

This is to certify that the doctoral study by

Stella Maduka

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Review Committee
Dr. Kenneth Gossett, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Yvette Ghormley, Committee Member, Doctor of Business Administration Faculty

Dr. Theresa Neal, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
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Abstract

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MBA, Roseman University of Health Sciences, 2016

BSc, University of Nevada, Las Vegas, 2010

Doctor of Business Administration

Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Low health literacy can adversely affect individuals and groups without access to health information. Health insurance leaders who lack strategies to decrease low health literacy may lose their ability to provide quality health services and control care costs. Grounded in the health belief model and the Andersen health service model, the purpose of this qualitative multiple case study was to identify the strategies private health insurance leaders use to increase medical utilization to reduce healthcare costs. The three participants were from two private insurance companies in Las Vegas, Nevada. Data were gathered through semistructured, open-ended interviews via videoconferencing, a review of public documents, and journal notes. Data were analyzed using thematic analysis, and four themes emerged: (a) patient case management engagement to achieve compliance, (b) continuous patient health education, (c) health service utilization review, and (d) providers-patient collaboration. The key recommendation for private health insurance managers is to ensure patient interaction through case management. The implications for positive social change include the potential to improve health literacy knowledge, thereby increasing adequate medical utilization for the population and reducing healthcare costs for individuals and insurance companies.

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Dedication

I dedicate my doctoral study to the Lord Almighty, who has strengthened me in times of adversity and turned most of my disappointments to blossom into blessings and success. To my late father, Theophilus Duru Amaechi, with his unconditional love and unwavering support and the lessons of family values, extending, building, and sustaining good relationships with people. Thank you for all your help and prayers to my spiritual and prayerful warrior, my mother, Elizabeth Amaechi. Unfortunately, my mother passed away unexpectedly during the process of completing Section 3 of this study. Thank you to my husband, Dr. Godwin Maduka and five children, Otito, Angelika, Michael, Celina, and Anthony. My children have inspired and supported me in completing this journey.

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Section 1: Foundation of the Study

The growing healthcare costs in the United States healthcare industry have posed a significant challenge to individuals, insurers, policymakers, and the national GDP. Health literacy on medical utilization is crucial and challenging to individuals with low health literacy and healthcare organizations. Palumbo (2017) identified low health literacy as the determinant of insufficient access to health-related services. Individuals with inadequate health literacy are prone to not engaging in health-related information due to low self-efficacy in understanding the information to make health decisions (Palumbo, 2017; Simpson et al., 2020). Barello et al. (2020) recognized a primary objective of the World Health Organization to increase the rate of patients' health literacy. Researchers have shown that a patient's psychological readiness, autonomous health commitment, and provider's encouragement determine the level of health literacy (Graffigna et al., 2016).

Through this qualitative study, I explored the strategies private health insurance managers use to increase health literacy on medical utilization to reduce healthcare costs. Following are the components of Section 1, including the background of the problem, the problem and purpose statements, the nature of the study, and the research and interview questions. Next, I addressed the conceptual framework as a lens to discuss the problem, operational definitions of terms for ease of understanding, and the study's significances, assumptions, limitations, and delimitations. Finally, I wrote the literature review and summation before transitioning to Section 2 of the study.

Background of the Problem

Health literacy is vital to delivering healthcare services to benefit patients, families, health providers, and health insurance companies. MacLeod et al. (2017) identified poor health literacy as the contributor of patients' unsatisfaction, ineffective adherence to prophylactic medical treatment and prescription intake, increased healthcare utilization and spending. In their study, Walters et al. (2020) showed that health literacy interventions effectively enhance positive attitudes towards health, particularly vulnerable populations facing health disparities. Fleary and Joseph (2020) approximated that 80 million adult Americans live with low health literacy. The financial ramification of patients with limited health literacy on healthcare insurance organizations results in expensive treatment payments. Through health literacy programs, managers and patients could understand the importance of routine medical utilization for preventive outcomes and cost reduction. Health literacy strategies to improve health literacy on patients to understand medical utilization might improve patients' health outcomes and shrink healthcare costs for people and organizations.

The purpose of this study was to understand strategies private health insurance companies use to improve health literacy on medical utilization to reduce healthcare costs. Evidence from undertaking this research might indicate a positive social change to create a healthy initiative on adequate healthcare utilization to prevent diseases and reduce healthcare costs. As I have presented a brief account of the background of the study, next is the problem statement, which is the heart of the research.

Problem Statement

The top 5% of the population with the highest medical utilization is responsible for 50% of the overall healthcare costs reaching a yearly average of $53,174 in the United States (Mitchell, 2020). The national health expenditure as a percent of gross domestic product was 17.7%, $3.8 trillion accounted for the total health expenditure, and $11,582 per individual expenses spent in 2019 (Centers for Medicare & Medicaid Services, 2020). The general business problem was that the lack of health-related knowledge has contributed to healthcare overutilization causing healthcare expenses to increase. The specific business problem was that some private health insurance managers lack strategies to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses.

Purpose Statement

The purpose of this qualitative, multiple case study was to explore the strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. The targeted population consisted of private health insurance managers from two health insurance organizations in Nevada who have at least 3 years of experience effectively improving patients' health literacy on medical utilization to reduce healthcare expenses. The findings of this study may have a positive social change in creating health-literate individuals for improving communities' citizens' health and reducing patient healthcare expenses.

Nature of the Study

The three research methods used to meet and achieve the purpose of my study are quantitative, qualitative, and mixed methods (Yin, 2018). The qualitative research method involves using an information-gathering approach, such as semistructured, open-ended interview questions to collect data to create a nonnumerical figure (Saunders et al., 2019). Researchers apply the quantitative method to assess variables' statistical characteristics and relationships (Saunders et al., 2019). The mixed method is a mixture of quantitative and qualitative approaches, which permits a researcher to address more complex research questions and gather a deeper and more significant collection of data than a single method (Saunders et al., 2019; Yin, 2018). The quantitative and mixed methods were not relevant for this study because I was not seeking to confirm or disconfirm a hypothesis about variables' characteristics or relationships in analyzing the strategies to increase health literacy and decrease healthcare costs. The qualitative method was the most applicable to this study because it allowed me to explore a more in-depth understanding of how healthcare managers develop and implement strategies to enhance health literacy while decreasing healthcare costs.

I considered four qualitative designs for the study: (a) phenomenological, (b) ethnographic, (c) narrative, and (d) case study. The phenomenological model allows a researcher to explore the meaning of a *lived- experience* from the participant's perspective (Creswell & Poth, 2017). The design allows a researcher to focus on the meaning of an individual's lived experience, which is not my research focus. Frey (2018) explained that an ethnographic design identifies a group of people's social and cultural patterns in their natural habitat. Ethnographic design was not appropriate for my study because the focus was not on individuals' and groups' social and cultural experiences.

Bingley (2020) explained that using a narrative design allows a researcher to identify specific problems as essential to human interaction, where participants tell their individual stories in their own words. A narrative inquiry was not suitable for my research because individual personal stories would not help me address my research question. Using a case study allows a researcher to get *rich data and thick descriptions* of the past and current experiences concerning the topic of interest (Chini et al., 2019). Employing a case study enables a researcher to address a real-life organizational setting in a bounded system of daily activities used to gain knowledge and describe the organizational phenomenon (Saunders et al., 2019). Yin (2018) explained that a multiple case study design might be more desirable than a single case study design because using multiple case studies allow comparison among cases. I, therefore, used a multiple case study design for my study.

Research Question

What strategies do private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses?

Interview Questions

1. What strategies does your organization apply to help patients understand how healthcare literacy is a part of their health benefit to mitigate unnecessary expenses?

2. How do your organization’s staff members communicate health literacy strategies on utilization to your patients to reduce healthcare costs?
3. What derivative programs have your organization implemented to improve health literacy?
4. Based on your organization’s patients’ experiences of providing health insurance, what are the realized benefits of consumers' health literacy strategies on cost reduction?
5. What are the strategies your organization implemented to help increase patient literacy to understand adequate medical utilization of healthcare to reduce healthcare costs?
6. What are your organization’s challenges in addressing healthcare medical utilization to reduce healthcare expenses?
7. What measures have your company implemented to quantify the effectiveness of consumers' healthcare utilization literacy strategies?
8. What else can you add that will help me understand your organization's strategies to increase patient's health literacy on medical utilization to lower healthcare costs?

Conceptual Framework

The conceptual framework that applied to this study are the health belief model (HBM) and the Andersen health service utilization model (HSU). The HBM was initiated in the 1950s when psychologists, Hochbaum, Rosenstock, and Kegels (Hochbaum et al., 1952) at the Public Health Services addressed preventive health benefit concerns

(Rosenstock, 1974). The HBM is essential and one of the models utilized in many areas of healthcare to increase health behaviors (Krekeler et al., 2020). HBM is used as a lens to recognize strategies to enhance providers' or patients' involvement in various healthcare utilization interventions. The HBM emphasized the comprehension of health motivational elements and the purpose for an individual's participation and lack of participation in undertaking programs beneficial for health (Rimer & Glanz, 2005; Rosenstock, 1974).

Sheppard and Thomas (2021) stated that the critical propositions underlying HBM are the following six constructs to understand an individual's willingness to accept or reject intervention to aid behavioral health transformation: (a) perceived susceptibility to disease, (b) perceived severity of illness, (c) perceived benefits of behavioral change, (d) perceived barrier to behavioral change, (e) signals to action, and (f) self-efficacy to engage in health services. Healthcare managers can use HBM tenets to describe and understand individuals' motivational involvement in activities to improve healthcare utilization. Through the HBM perspective, managers can understand the specific construct contributing to a patient's health behavioral change and use the concept to create intervention programs to promote behavioral transformation in patients to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. The HBM applied to this study for health intervention and educational precedence established through this concept to achieve behavioral change. HBM aligned with the aim of this study to understand how health insurance managers promote intervention strategies to implement health literacy programs leading to medical utilization to reduce healthcare expenses.

Andersen's health service utilization framework was recognized in 1968 by Ronald Andersen to acknowledge the shared and distinct factors to enable or hinder the use of health services (Andersen, 2008; SoleimanvandiAzar et al., 2020). HSU framework facilitates the understanding that three influences determine an individual use of healthcare services: predisposing, which is an individual status and health belief, enabling factors such as support and availability of health insurance; and need, which is perceived and genuine need for medical services (Dang et al., 2018; Roberts et al., 2018; Shao et al., 2018). HSU model is significant in exploring and predicting the healthcare utilization access of an individual. Applying the HBM and the HSU as the conceptual frameworks to this study increased understanding in exploring strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses.

Operational Definitions

Critical health literacy: Critical health literacy refers to people's skills and activity to manage health, personal level capabilities and actions on the social factor of health, and the collective-level skills and measures on the social determinant of health to accomplish better health (De Wit et al., 2018).

Functional health literacy: Functional health literacy involves the capacity of an individual to retrieve, process, and comprehend fundamental communication and services for good health-related decisions (Nutbeam, 2008).

Health literacy: Health literacy became popularized since Simonds' inception of health literacy in 1974, many authors and organizations have presented various definitions (Sørensen & Pleasant, 2017). In 2004, the Institute of Medicine defined health literacy as the personal aptitude to acquire, process, and comprehend the critical health information and services required to achieve good health decisions. Zheng et al. (2018) categorized health literacy as health knowledge, behavior, belief, and skills.

Healthcare overutilization: Healthcare overutilization refers to the use of healthcare facilities that provided services or products that fail to produce positive health outcomes (Morgan et al., 2019).

Interactive health literacy: Interactive health literacy encompasses higher proficiencies to extricate novel information, understand various communication types, and implement new knowledge to create change (Nutbeam, 2008).

Medical/healthcare utilization: Medical/healthcare utilization signifies the utilization of healthcare services and the explanation of individual's health service use for the objective of avoiding and treating health complications, increase the management of health and welfare, or gaining information concerning an individual's health conditions (Gellman & Turner, 2013; National Academies of Sciences, Engineering, and Medicine, 2018).

Assumptions, Limitations, and Delimitations

Identifying the execution measures of a study involves various delineators to explain the study, such as assumptions, limitations, delimitations, and other elements (Burkholder et al., 2019). Stating the assumptions, limitations, and delimitations of research is crucial in academic research for readers to understand how the study was conducted. Assumptions, limitations, and delimitations are essential to enhance the quality of the research findings and clarify the researcher's proposed evidence (Theofanidis & Fountouki, 2018).

Assumptions

Assumptions are beliefs essential in conducting research but cannot be substantiated (Simon, 2011). The study involves several assumptions; the initial assumption was that the participants will answer the interview questions presented honestly. My second assumption was that the private insurance managers at my chosen establishment possess the knowledge and experience to use health literacy strategies to reduce healthcare utilization. The final assumption was that using a qualitative multiple case study will let me collect more data on what strategies private health insurance managers implement to educate patients on achieving adequate healthcare utilization to reduce healthcare costs.

Limitations

A qualitative study researcher must recognize limitations to the study design, sample size, and data selection. Limitations are compulsory restrictions and constraints which affect the research design, results, and conclusion and control any interpretations of the outcomes (Theofanidis & Fountouki, 2018). I anticipated limitations to this study in the possibility of participants' responses to misrepresenting information in answering interview questions, (participants telling me what they think I might want to hear rather than truthful responses), which might influence data interpretation and findings, Furthermore, the choice of my research design using a multiple case study with a small sample may be a limitation for the study findings.

Delimitations

Delimitations of research are the capacity and limits that the author determines. Delimitations focus on the conceptual research framework, general information, research questions, sample study, and concept (Theofanidis & Fountouki, 2018). I omitted other organizations that fit into my purposive sampling in different healthcare institutions locally and in other states. However, other healthcare institutions could provide more information on healthcare organizations' strategies to educate patients on utilizing healthcare services to reduce healthcare costs. Another delimitation was the small sample size and the geographic setting restricting the study result's transferability to other healthcare locations. The delimitations mentioned above may influence the internal validity of my study.

Significance of the Study

This qualitative multiple case study's potential significance to healthcare managers was to provide them with a tool to develop strategies to reduce expenses. As healthcare literacy increases, healthcare costs can probably decrease through patient education (Gossett et al., 2019). My study's potential significance to social change involves improving patients' knowledge of health practices to advance adequate healthcare utilization, starting from advocating preventive lifestyle, reducing patients’ need for medical care.

Contribution to Business Practice

Shrank et al. (2019) specified that the approximated worth of waste in the U.S. healthcare system ranged from $760 billion to $935 billion, accounting for an estimated 25% of overall healthcare spending. Gossett et al. (2019) forecasted approximately $1 trillion of total waste in the U.S. healthcare system. The predicted hidden savings from interventions that lower waste, excluding savings from administrative ramifications, ranged from $191 billion to $286 billion (Shrank et al., 2019). This amount figure exemplifies a potential 25% reduction in the total cost of waste (Shrank et al., 2019; Sisko et al., 2019). Therefore, the findings from this study could contribute to the cost reduction strategies by enabling healthcare managers to improve healthcare literacy for reducing the utilization rates in the healthcare industry.

Implications for Social Change

This study's implication for positive social change relates to helping individuals become responsible through a health literate approach for improving their health and wellbeing. Health literacy can improve health communication understanding and decrease healthcare costs for consumers, private insurance businesses, and society, closing gaps in finding healthcare remedies to reduce healthcare costs. Additionally, this study's findings might enable policymakers to enforce health literacy policies, bringing greater awareness to social entrepreneurs for further health literacy initiatives to benefit the low-health literate population to acquire health-related knowledge.

A Review of the Professional and Academic Literature

A researcher in their literature review aims to identify, analyze, and synthesize adequate literature essential to health literacy intervention strategies. In this qualitative multiple case study, the goal was to explore the strategy private health insurance managers use to increase health literacy by interviewing managers who deal with patient intervention programs in health insurance organizations in the urban community in Nevada. Through this literature review, I explored numerous data related to describing how health literacy intervention strategies will aid in understanding medical utilization to reduce the overall higher healthcare costs in the United States.

An effective academic literature review consists of a concise central point, the analysis, and the synthesis of evidence established on the issue (Linnenluecke et al., 2020). Evaluating literature encompassing patients' healthcare literacy on medical utilization to reduce healthcare expenses might present beneficial strategies other managers can apply to mitigate healthcare costs effectively. Therefore, in this literature review, the use of relevant literature and conceptual framework on the health belief model developed an understanding of the existing seminal work conducted on this topic. The review process involved searching for many references comprising peer-reviewed journals, books, and government health agencies within 5 years of study completion.

Literature Review Search Strategy

The literature evaluation strategy employed in this study encompassed the primary topic and other search terms involving *healthcare costs, health literacy, low health literacy, healthcare or medical utilization,* and *the health belief model.* To complete the literature review section for this study, I gained access to various search databases through the online library and Google Scholar search. The search contribution involves Walden University library databases, such as CINAHL & MEDLINE, Academic Search Complete, ProQuest Health & Medical Collection, SAGE Knowledge, ScienceDirect, EBSCOhost, Elsevier, and other helpful databases. Google Scholar provided easy access to multiple articles with a link to retrieve journals available at the Walden library. Based on the Walden University DBA restriction on the use of articles within 5 years of graduation, I selected articles ranging from 2018 to 2022. Furthermore, the pieces from the government agencies databases made up part of healthcare organizations' contributions, such as the Agency for Healthcare Research and Quality (AHRQ), Centers for Medicare and Medicaid Services (CMS), and Institute of Medicine (IOM). Table 1 illustrates the distribution of the literature reviewed, consisting of books, peer-reviewed, and non-peer-reviewed journals used for the study.

Table 1

Sources of Professional and Academic Literature

Sources	Review of the literature before 2018	Review of the literature after 2018	References published before 2018	References published in or after 2018	Percentage (%) published	Total references
Peer-reviewed Journals	13	70	23	70	85	176
Non-peer-reviewed Journals	3	3	8	10	15	24
Books	2	6	5	3	0	16
Total	18	79	36	83	100	216

Note. Frequency and percentage of resources within the literature review and proposal.

Conceptual Framework: Health Belief Model

In this qualitative multiple case study, I used the HBM as a framework to identify and understand how managers develop and implement effective health literacy strategies. Skinner et al. (2015) identified the importance of the HBM in understanding why patients refused to screen for tuberculosis when offered access to traveling X-ray vans. Understanding the HBM might enhance patients' health experiences to lessen preventable diseases and higher healthcare costs related to healthcare overutilization. According to Rosenstock (1966), the HBM is a popular model in health advancement interventions to support justification to defend reasons people accept or reject preventive health initiatives. Green et al. (2020) identified HBM as essential to interventions to strengthen the understanding of health challenges, improve perceptions of individual risks, support actions to reduce or eradicate the risk, and develop a sense of self-efficacy to initiate change. The HBM creates an understanding that healthcare providers and patients need to increase adequate healthcare utilization techniques to detect disorders early to avoid the onset leading to suffering, diseases, and higher healthcare costs.

The HBM promotes an understanding of numerous beliefs that enable individuals to seek medical care. In recognition for individual's beliefs, Skinner et al. (2015) pointed out several principles of the HBM indicating individual's expectations to participate in a health behavior in a rational calculation of self-interest if they consider: (a) the risks for an illness, (b) a disorder with an impending severe outcome, (c) health mediation with a positive outcome, (d) benefit for engaging in action, and (e) cost-benefit analysis on perceived barriers. These factors are vital to identifying patients' impediments or motivation for participating in healthcare services (Skinner et al., 2015). The principles of the HBM enable health managers to facilitate the implementation of strategies to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses.

Several studies have presented important data to demonstrate the impact of HBM on mitigating the problem of various illnesses through behavioral transformation, creating mindfulness, and precautionary practices. An example was a study applying the HBM constructs in a survey that positively influenced nursing students' consciousness concerning COVID-19 mitigation strategies (Elgzar et al., 2020). Similarly, another study portrayed workers' awareness concerning the 2012 coronavirus Middle East respiratory syndrome (MERS-Cov) infection and the intervention of the Saudi Ministry of Health in accomplishing significant growth in creating responsiveness through the application of HBM (Alsulaiman & Rentner, 2018). These studies proved the significance of applying

HBM in other areas, such as health literacy intervention, to promote adequate medical utilization and reduce the higher healthcare expenses associated with the lack of health knowledge.

HBM might help health insurance managers, patients, policymakers, and scholars to explore many interventions needed to influence citizens to increase health literacy on medical utilization to improve health and reduce costs. Health insurance managers can use HBM to understand many propositions of health literacy to produce the best health literacy programs to benefit patients. For example, Mohebbi et al. (2019) conducted a study to demonstrate a positive impact of initiating health literacy intervention focusing on the advantages of self-management of expecting mothers with gestational diabetes. Mohebbi et al. confirmed that patients who received educational training in self-management of diabetes improved their knowledge through the HBM intervention. Health literacy intervention might be beneficial to other diseases and a motivator to a patient in understanding proper medical utilization for early disease detection and opportunity for cure.

The History and Development of the HBM

In the early 1950s, public health professionals’ objectives focused on understanding why individuals avoided preventive measures of diseases such as polio (Rosenstock, 1974). I preferred the HBM as a conceptual foundation to comprehend the factors attributable to health decision-making involving patients' behaviors seeking preventive remedies and adequately utilizing healthcare services. The founders of the HBM focused on many intervention projects and patients’ reactive actions based on the

HBM six constructs in understanding the trigger for healthcare or medical utilization and its impact on health. Many of the HBM tenets are proven to be successful in forecasting health advancement behaviors (Luquis & Kensinger, 2019). Healthcare managers might use HBM to develop programs to improve people's health literacy relating to the perceived barrier to disease and the perceived benefits in mitigating the onset of illness.

Understanding the HBM supports many good health habits to achieve healthy wellbeing. Additionally, motivating elements play a crucial part in individual daily conduct by numerous influences such as educational level, financial status, and geographic location (Louis, 2019). Kurnia et al. (2021) identified behavior as an element contributing to awareness, attitudes, and beliefs. Relatedly, Louis (2019) confirmed that the immediate attention of the HBM depends on the attitude and people's belief about effort concerning health. Louis conducted a study applying the HBM constructs to understand the behaviors of Haitian men on prostate cancer screening. Louis found that cultural belief was detrimental to the lack of cancer screening for Haitian men. The suggestion that improving health literacy intervention would offer significant insight into problems of low health screening in populations with high disease susceptibility is vital (Louis, 2019). Vahedian-Shahroodi et al. (2021) reported a result consistent with findings in Louis's (2019) study that improving health education through the HBM was significant in behavioral change in a study of children's nutritional intervention with parents and teacher's support. Healthcare managers' tasks to support patients in improving health knowledge through health literacy programs are crucial in mitigation strategies to achieve positive health results.

Additionally, people use various HBM constructs to assess health conditions in seeking preventive help (Kurnia et al., 2021). An example, perceived susceptibility enables an individual to understand the possibility of becoming sick with a disease (Sharma, 2021). Health science researchers have documented several studies to prove the impact of HBM application in changing individuals' beliefs based on the behavioral perception of health (Kurnia et al., 2021). Directing patients' behaviors to adequately utilize healthcare services might prove beneficial to patients, healthcare providers, and health insurance providers in preventing diseases that might become terminal in causing patients' death and contributing to the rising expense of healthcare in the United States.

Researchers can use HBM to address patients' health literacy on adequate healthcare utilization in creating the understanding that might enable patient participation in numerous health literacy interventions to improve health and reduce higher healthcare costs in the long run. The paradigm of HBM presents the understanding of various motivators to encourage individuals into partaking in health-related decisions in adherence to adequate healthcare utilization to prevent illness. Luquis and Kensinger (2019) suggested that the six health belief model constructs are essential to justify an individual's reaction to prevention, screening, and other health behaviors. Healthcare managers can create health literacy programs to escalate adequate medical utilization through the views of HBM six constructs: perceived susceptibility, perceived severity, perceived benefit, perceived barrier, cues to actions, and self-efficacy to improve health.

Six Main Tenets of the HBM

HBM tenets have inverse relationships in predicting what position an individual takes in making health decisions. Sadeghi et al. (2018) opined that many studies found perceived susceptibility and severity to result in a health threat. Consequently, there is an inverse relationship between perceived susceptibility, perceived severity, benefits, and barriers, confirming that, as the perceived susceptibility decreases as the perceived severity increases, the perceived barrier decreases, boosting motivation to not accept protective health actions (Sadeghi et al., 2018). The six HBM tenets implementation describes and creates an understanding of the possibility of an individual participating in interventions to promote self-motivational involvement in activities to strengthen good healthcare utilization behaviors or it also might help to explain why some healthcare professionals choose not to at the same time (Luquis & Kensinger, 2019).

Perceived Susceptibility

Mohebbi et al. (2019) explained perceived susceptibility as one of the health belief model constructs encompassing an individual's belief of acquiring a disease associated with certain behaviors endangering health. An individual is triggered to participate in a preventive remedy when perceived health risks of contracting an illness that could be preventable. An example is the perception of health risks prior to participating in screening for communicable and noncommunicable diseases. Luquis and Kensinger (2019) demonstrated that utilization of preventable care increased with perceived susceptibility of associated health results of a particular illness screened. Patients without the knowledge of susceptibility to diseases cannot understand and engage in adequate medical utilization due to limited health literacy and cannot make health-related decisions.

Larki et al. (2018) reported the impact of perceived susceptibility on reduced salt intake and nonsmoking adherence in study participants. The application of perceived susceptibility to this study involves health insurance managers identifying vulnerable populations and their literacy levels. Healthcare managers can increase health literacy on obtaining adequate medical utilization by explaining why a patient should seek medical help to avoid the severity of illness. Additionally, a patient might reduce the risk of suffering or paying higher healthcare expenses in treating preventable conditions through health literacy intervention.

Perceived Severity

In the condition of perceived severity, individuals' beliefs may result in health harm due to a particular behavior (Sharma, 2021). Perceived severity refers to the propensity to reduce behavioral risks associated with the negative consequences of disease severity originating from the medical data and individual’s knowledge (Hayden, 2017; Janz & Becker, 1984). An illustration describing perceived severity might involve an individual with comorbidity involving hypertension and diabetes of higher-than-normal blood levels identify a health threat triggering cues to action to reduce the severity of the disease consequences. Implementing health literacy intervention to create an understanding of various health self-manageable disorders will create perceived health benefits. Perceived severity applies to identifying and tackling the effects of the danger and the situation (Sharma, 2021).

Perceived Benefits

A patient's understanding of perceived benefits fosters initiation to accept healthcare services. A perceived benefit is to ensure the mitigation of behavioral risk-benefit for acting on the perceived severity of sickness detrimental to health (Sharma, 2021). The application of perceived benefits to behavioral change describes interventions, strategies, location, possible outcomes, and the positive impact of the behavior. Hayden (2017) and Janz and Becker (1984) proposed that a person observes the importance and effectiveness of implementing new behaviors to curtail the dangers of sickness and will probably assume different behaviors centered on the insights of their welfare in lessening dangers. Understanding the perceived benefit of engaging in adequate medical utilization through health literacy initiatives enables sufficient health checks to reduce healthcare costs.

Perceived Barriers

A perceived barrier is the obstruction of an individual belief that impedes implementing a new intervention to enhance health conditions (Sharma, 2021). Perceived barriers might be health insurance coverage, affordability, cultural belief, socioeconomic status, and other factors. Luquis and Kensinger (2019) stated that the Affordable Care Act of 2010 enhanced the opportunity of primary care access, however lessening barriers for young people to receive health plans and prophylactic measures. Managers must recognize and mitigate perceived barriers by expressing guarantee, enticement, and support in health behaviors.

Janz and Becker (1984) presented perceived barriers as the utmost prevailing element of HBM that enables people to examine the potential challenges encountered when making behavioral change. A perceived barrier might be the cost of treatment which (Sheppard & Thomas, 2021) stipulated that when the perceived barrier rises, an individual's possibility of partaking in a beneficial health conduct decline. Perceived barrier applies to this study in explaining and understanding why many people avoid engaging in healthcare services due to various impediments. Sheppard and Thomas (2021) demonstrated how perceived barriers influenced COVID-19 infection prevention based on cultural differences and other factors. Healthcare managers must find ways to reduce the perceived barriers to adequate healthcare utilization to increase perceived benefits.

Cues for Action

Another HBM constructs important for health intervention to achieve a behavioral improvement is cues for action. Elgzar et al. (2020) identified that cues for action are a developmental inducement to make behavioral health changes. Cues to action originate from the pressure to act on the information related to health diagnosis (Sharma, 2021). Alsulaiman and Rentner (2018) added that cues to action involve external and internal stimuli. External cues consist of incidents, persons, mass media, health providers, and other external stimuli influencing altered behaviors (Hayden, 2017; Janz & Becker, 1984). An internal cue to action is the psychological factors involving pain and signs that motivate a person to seek help to positively influence behavioral change toward health conditions (Janz & Becker, 1984). Cues for action might result in intervention leading to healthcare services utilization.

An abnormal diagnosis that represents cues for action will trigger a person to seek healthcare services to obtain a perceived benefit to reduce susceptibility and severity of an illness. Alsulaiman and Rentner (2018) concluded in their study that individuals with higher marks on cues to action and the other four HBM constructs followed health recommendations when compared to the others with low results. HBM is essential to health literacy education intervention to develop knowledge and create awareness that might lead to action cues to prevent health problems and reduce healthcare costs. Healthcare managers might apply cues to action by offering information, intervention, and reinforcement to initiate inclination for the individuals to act.

Self-Efficacy

A significant HBM construct that enables individuals to make changes in self-efficacy is also important to understand. Self-efficacy depends on the self-assurance of a person's capability to act on the intervention to change behavior to improve health (Sharma, 2021). Mohebbi et al. (2019) stated that the HBM enables an individual with perceived susceptibility and severity to act with conviction to participate in healthy behavior, selecting the best option to achieve an outcome while considering perceived barriers and benefits should trigger an inducement to stay healthy. Hayden (2017) indicated that studies proved a relationship between the capability, skillfulness of accomplishing a goal, and goal realization. Managers can enable individuals to obtain self-efficacy through health literacy projects to comprehend proper medical utilization, direction, and effective reinforcement to reduce diseases and the increasing healthcare costs.

The application of HBM and its constructs to this study explains the problems individuals consider in taking health initiatives to improve health. Understanding an individual's perception through the various HBM constructs is instrumental in educating patients on preventative self-health management (Mohebbi et al., 2019) to reduce personal and health insurance expenses. Furthermore, HBM is an essential framework in presenting manager's health literacy strategies to increase adequate healthcare utilization (behavior change) and reduce cost. Some healthcare expenses emerging from underutilization of preventive care resulting from negligence, might increase healthcare costs in the near future which is necessary to curtail the occurrence of a problem illness through health literacy intervention.

Additionally, HBM based intervention enable various perceived triggers to enable appropriate health decisions. An individual who understands the seriousness of an illness must seek help to treat or cure the disease. An individual can attain health belief advantage by engaging in programs to understand numerous valuable resources provided to patients through research participation (Mohebbi et al., 2019). Mohebbi et al. (2019) conducted a study to demonstrate the application of the HBM constructs on pregnant women with gestational diabetes mellitus and found that health literacy education was helpful in behavioral change through HBM constructs.

Healthcare stakeholders and partners are health role models in taking initiatives with the HBM framework to create knowledge and understanding to reduce low health literacy to increase profitability. The application of HBM and the corresponding constructs is to achieve advanced level health literacy among healthcare users who seek health insurance from providers. The achievement involves earlier screening and treatment, medication adherence, understanding health disparities, and understanding each population at their level of health literacy to mitigate perceived barriers to increase health literacy.

Sadeghi et al. (2018) pointed out that researchers have identified education as highly efficient in instructional programs using the HBM. The report of Sadeghi et al.'s study provided evidence that HBM application in health educational training improved knowledge in standard precautional measures in emergency departments. Alsulaiman and Rentner (2018) recounted several successful studies conducted for various illnesses through HBM based intervention programs. Health literacy education might create understanding on adequate medical utilization to improve preventive care and reduce healthcare costs. The health belief model framework (see Figure 1) presented an essential tool for explaining how HBM constructs can lead to behavior intention in healthcare use. Individual perceptions based on the modifying elements might prompt behavioral health activities (Rosenstock, 1974).

Figure 1

The Health Belief Flow Chart

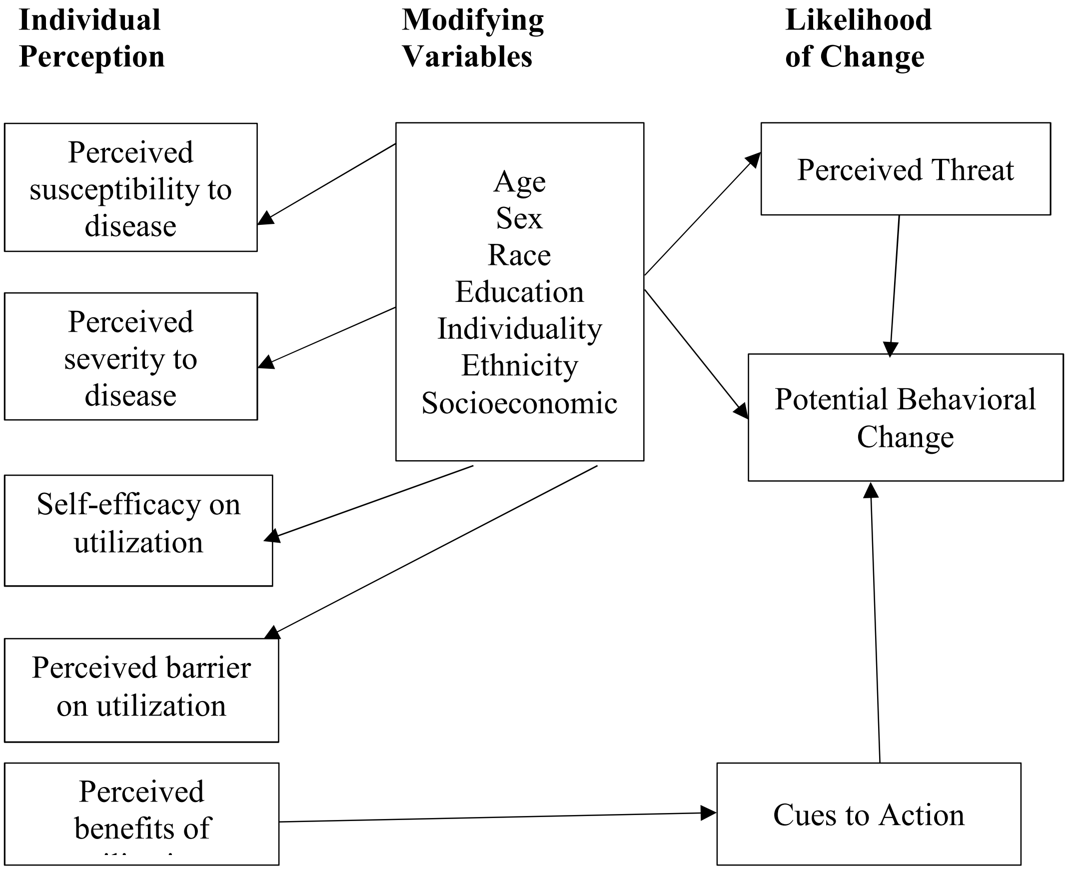

Figure 1: Feedback loops in the HBM Model to improve the strategies for utilization effectiveness -(Hochbaum et al., 1952)

Andersen Health Service Utilization Model (HSU)-Supporting Theory

I chose the Andersen health service utilization model (HSU) as the alternative theory to explain the concept of health services utilization for this study's topic. This model was established in1968 by Ronald Andersen to understand the collective and individual components of health service utilization (Andersen, 2008; SoleimanvandiAzar et al., 2020). The intentions of Andersen's HSU model focus on the determinants of health services utilization which have three important influences with individual and contextual equivalent: (a) enabling factors, (b) predisposing factors, and (c) need discrepancies (Andersen, 2008; Roberts et al., 2018; Shao et al., 2018).

Enabling factors are significant in determining access to health service utilization (SoleimanvandiAzar et al., 2020). These factors encompass various levels, such as personal, which involves salary, health insurance, wealth, and healthcare foundation. SoleimanvandiAzar et al. (2020) added the contextual level, which comprises health insurance exposure, community gross domestic product (GDP), healthcare workers, location dissemination, and other variables. Additionally, enabling influences to comprise family encouragement, health insurance plan assortment and fees, and an individual's community (Shao et al., 2018). Enabling factors must be challenging for healthcare workers to identify to provide better adequate health literacy programs tailored to the patient and the community's needs. Health insurance managers need to consider enabling factors of individual patients to understand the impact of health service utilization to provide financial services with better health outcomes for patients.

Predisposing factors are crucial for health insurance managers to understand to accomplish adequate health service utilization to avoid expensive health coverage leading to financial loss. Shao et al. (2018) and SoleimanvandiAzar et al. (2020) described predisposing factors involving social demographic factors such as age, sex, race, health belief, a marital status that influence the need to seek health assistance. SoleimanvandiAzar et al. presumed need dynamics as variables regarding observing a person's health status modification. Roberts et al. (2018) observed stability in health service use based on self-evaluated health condition, comorbidity, frailty, length of symptoms, and common mental disorder. Need discrepancy concerns perceived and an authentic necessity for people's desire to access healthcare service and the self-observed health status have been found to also effect healthcare utilization decisions (Shao et al., 2018; SoleimanvandiAzar et al., 2020). Observing patients will enable understanding in assessing a patient's HSU need factors, particularly a change in health status involving prevailing health conditions leading to higher or sometimes, lower usage.

Andersen's HSU model supports the medical utilization aspect of this topic. I used this model as an alternative framework for this study to understand health insurance providers' strategies to increase healthcare utilization through health literacy intervention to achieve lower healthcare costs. The HSU model applies to understanding the fundamental elements in the utilization of healthcare resources. SoleimanvandiAzar et al. (2020) found that the enabling, predisposing, and need factors influenced making decisions and gaining access to healthcare services. Andersen's HSU model supports the HBM by explaining that healthcare utilization is influenced by predisposing needs and enabling factors. The Andersen health service utilization model is a lens that health insurance managers might use to enrich their knowledge of the determinants of healthcare utilization.

Complexity Theory-Contrasting Theory

I selected complexity theory as the contrasting theory for this study. Complexity theory gained momentum with a group of scholars from multiple fields in the 1980s with the establishment of the Santa Fe Institute (Pascale, n.d.). This model embodied extensive movement encamped innovative principles concerning complex adaptative systems (Schneider & Somers, 2006). Turner and Baker (2019) proposed that organizations must cope with the increasing complexity in human resources accessible to firms and view competent and unqualified workers' problems through the lens of the proliferation of complexity science. Complexity science adapts to innovative leadership and management skills, and the organization is complex (Turner & Baker, 2019).

Complexity theory: An umbrella expression that shelters fundamental philosophies of systems-thinking, socio-technical system theory, and complex adaptive systems (CAS; Ferreira & Saurin., 2019). These components enable organizations to adapt to environmental pressure and sustain balance (Turner & Baker, 2019). Kallemeyn et al. (2020) revealed that complexity theory interrupts the idea of accomplishing change due to its unpredictable nature, and similar outcomes are not guaranteed. Understanding complexity theory is vital in comprehending how organizations achieve change, sustainability, and reformation. Turner and Baker (2019) addressed that this theory perceived the system as nonlinear and unpredictable as applied to the mathematical example of linear and predictable nature when observing the chaos.

As a focus on organizational activities over time of various categories of systems (Rosenhead et al., 2019). Complexity theory consists of nonlinearity, the non-directional nature of systems (Kallemeyn et al., 2020), system interdependence, and dynamic connectivity through feedback loops (Cilliers, 2002). Emergence is the ability of a complex system to be more significant than the total of its established segments (Manson, 2001), unsolidified boundaries, and the irregularity of particular behavior inside a universal structure of anticipated behavior (Rosenhead et al., 2019), and diversity, incorporating various entities of the system (McLean et al., 2021).

Complexity theory is essential to all organizations in understanding the relationships between the systems and components. Spoor and Rothman (2021) hinted that agent and system are an interdependent fundamental segment of complexity theory, and agents should initiate an approach to enhance healthcare organizational systems to achieve positive outcomes. Albeit complexity theory supports the dynamic nature of the healthcare organizations, I will not be using complexity theory for my study because the lens to view this study was not to explore the relationship between the system and its interactions. The HBM and the Andersen model should help me identify effective health literacy strategies that patients can use to enhance their health experiences to lessen higher healthcare costs.

Synopsis of U.S. Healthcare Costs

Historically, there has been constant debate and policy change on healthcare in the United States, mainly focusing on cost control. The healthcare debate is constantly on prescription drugs while healthcare service utilization bears the highest expenses receive less attention (Kirson et al., 2020). The condition of the U.S. healthcare costs is alarming, knowing that the expenses do not equate to continuous positive health outcomes (Kirson et al., 2020). Currently, the U.S. national spending on healthcare is close to $4 trillion, signifying approximately 20% of gross domestic product (GDP; CMS, 2020). Blendon et al. (2019) found that the United States contributes more financially to the healthcare system when compared to other developed countries. Additionally, more Americans understand that healthcare services are over-priced, which causes economic disability to individuals and families in meeting household obligations (Blendon et al., 2019). Gossett et al. (2019) and Kirson et al. (2020) added that in spite of the higher spending in the United States, the value of the high cost is questionable and needs to be addressed by healthcare policy makers.

Bringing awareness to the prevailing concern is important as healthcare costs continue to rise for the population as a whole. The alarming truth was that Garg (2020) analyzed the economic health of the United States, identifying the prevailing healthcare expenditure drivers, outcomes, healthcare return on investment, and public opinion important to citizens. Garg (2020) conducted several surveys and found that the most significant drivers of healthcare expenses were pharmaceutical drug prices and hospital utilization. Additionally, Garg included that more than 90% of Americans prioritized decreasing healthcare expenses and observed that hospitals, health insurance, and pharmaceutical companies disregarding overutilization contributed to the rising healthcare costs. Healthcare costs and reforms have constantly become topics of debate on finding a compromise for the contributing players in the healthcare system.

Higher healthcare costs are concerning and do not equate to better health outcomes to some groups of the U.S. populations. Lyford and Lash (2019) addressed critical concerns of the United States population concerning their health expenses. Lyford and Lash postulated that Kaiser Family Foundation reported that the burden of unsustainable healthcare costs on individuals and organizations leads to medical bankruptcies. More people consider preventive medicine essential to health and longevity

(Garg, 2020). Education is the basis to obtain better preventive care to improve well-being; health literacy intervention is essential to this process. Government support ensures lower prices to promote primary care and advocate for price transparency and rivalry to decrease medication costs (Garg, 2020). Bush (2018) identified the problems associated with healthcare's rising costs as not addressing the systematic inequalities and social issues that created poor health and health inequities in the United States. Bush indicated that the United States spends over $3 trillion annually, the highest in healthcare than other countries in the Organization for Economic Co-operation and Development (OECD). The United States fails to produce the highest health results and does not provide universal health care for all of its citizens in spite of the high healthcare spending.

The most vulnerable section of the U.S. population with unaffordable healthcare cannot afford their prescription drugs (Lyford & Lash, 2019). Lyford and Lash (2019) added that the Center for Medicare and Medicaid reported that the United States has the most expensive healthcare costs globally, with total spending of over $10,000 in 2017 per person, and still rated the lowest inadequate health compared to many developed nations. Furthermore, Lyford and Lash identified strategies to sustain healthcare costs, such as: (a) implementing policies to reduce prescription drug prices and (b) implementing value-based healthcare with value-model compensation.

Haslam et al. (2019) conducted a cross-sectional systematic review to investigate the factors contributing to the healthcare costs and the groups of organizations answerable to attributable characteristics to the problem of the increasing healthcare costs in the United States. Based on the review, Haslam et al. used Google Scholar to identify 225 drivers, and PubMed journal attributed the increasing healthcare costs to 47 possible drivers. Haslam et al. observed divergence between the public's views concerning the organizations or individuals responsible for the high healthcare costs' roots. Haslam et al. (2019) found that health insurance providers attribute a sizable aggregate to the rising costs of health service. Haslam et al. acknowledged through PubMed journals that individuals' lifestyles, atmosphere, and medical complications were the common established reasons for the rising cost of healthcare, without attribution to any group, medications, or devices. The authors also found from the Google news evaluation that hospitals and others contribute to the high cost of healthcare. Haslam et al. made a significant conclusion that the apportioning of liability for the rising healthcare costs is inconsistent with actual healthcare spending. Among all the problems of higher healthcare costs, health literacy is important in understanding adequate healthcare utilization to reduce medical costs.

Health Literacy

Health literacy increasing research and practice areas essential in building health skills in making health-related decisions to improve good health and healthy lifestyle in the current century (Nutbeam, 2008). According to various surveys conducted in a few countries around the world, limited health literacy is prevailing universally. The International Union for Health Promotion and Education (IUHPE) has recognized the essence of health literacy advancement in communities through healthcare sponsors and partners (Nutbeam et al., 2018b). Fleary and Ettienne (2019) stated that among the pervasiveness of health literacy in the U. S., limited health literacy individuals encounter racial, low economic status, poor education, aging population with special needs, language barriers, ethnic challenges, and rural location restrictions. The United States has an estimated 80 million adults with inadequate health literacy (Prince et al., 2018).

Various authors defined health literacy in many ways expressing similar concepts and understanding. In 1974, health literacy became important in understanding how to improve health knowledge through education, the healthcare system, and media on upholding and sustaining wellbeing from early elementary school level (Schwartzberg et al., 2005; Simonds, 1974). Parker and Ratzan (2019) explained that health literacy, as recognized by the Healthy People 2030 agenda and the Health and Human Services (HHS) concerns the suggestion and need for innovative definitions to incorporate specific terms. Other authors affirmed that health literacy provides adequate health information and service accessible and understandable to apply to healthcare choices and participation in activities (Secretary's Advisory Committee on National Health Promotion and Disease Prevention objectives for 2030., 2019). Brach and Harris (2021) suggested that healthcare organizational leaders should involve other health providers to develop a health information knowledgeable organization with the goal to implement Healthy People 2030 inclusion of the health literacy proposal encompassing organizational awareness in creating impartial opportunities for each patient.

The Institute of Medicine (2004) proposed the most significant models of health literacy involving cultural and conceptual comprehension, print health literacy, spoken health literacy, and numeracy. Ratzan and Parker (2000) expressed the original definition of health literacy adopted by the IOM in 2004 as the degree to which individuals can obtain, process, and understand basic health information and services needed to make appropriate health decisions. Kickbusch et al. (2006) added that health literacy is the capacity to construct comprehensive health choices in the setting of normal life, domestic, communal, at the job place, healthcare organization, the marketplace, and the legislative ground. Additionally, Kickbusch et al. suggested that health literacy is a significant liberative approach to expanding society's power concerning their well-being, ability to obtain information, and power to gain culpability. The importance of identifying numerous definitions of health literacy was to create more understanding on the topic of this study and its impact on individuals and the costs to society.

Karl and McDaniel (2018) identified that researchers who specialized in health literacy studies locally and worldwide warned that treating individuals as possessing adequate health literacy might prove detrimental to health. Therefore, healthcare workers and managers should empower themselves with adequate health literacy to understand the impact of low health literacy on healthcare costs and health outcomes. National Institutes of Health (2014) estimated the economic burden contributed from low health literacy to range between $106 billion to $236 billion yearly. More emphasis on addressing the financial implications of low health literacy to healthcare organizations and health insurance providers is crucial in reducing costs.

Various health interventions to address an individual’s level of health literacy might involve education from the grassroots to eradicate inadequate health literacy. In an attempt to reduce low health literacy, the Agency for Healthcare Research and Quality

(2020) adopted the Health Literacy Universal Precautions (HLUP) to direct healthcare professionals on steps to follow when consulting with every patient. The HLUP stipulated that healthcare providers must assume that all patients have low health literacy and cannot communicate and understand health information (Killian & Coletti, 2017).

Sentell et al. (2020) presented the significance of individuals, community, and population wellbeing knowledge, explicitly considering the impact of the global health pandemic. Sentell et al. identified that low health literacy is influential in the worldwide COVID-19 involving lifestyle behaviors, family association, organizational actions, policy decisions, national mortality statistics, and the global economy. Sentell et al. study findings suggested that adequate health literacy must be incorporated into the population resources as a part of the community strength to support the health literacy initiative.

The authors critically addressed the implication of investing in health literacy, considering the impact of the global COVID-19 health understanding on people (Sentell et al., 2020). To support Sentell et al.'s (2020) assertion on achieving sufficient health literacy, Košir and Sørensen (2020) proposed that improving public health literacy involves increasing shared awareness of healthcare stakeholders, enabling populations and health consumers, as well as involving patients in proactive interventions through the healthcare organizations. Additionally, Košir and Sørensen believed that patients and healthcare organizations are the keys to progressive outcomes on health literacy intervention, such as the SARS-CoV-2 virus and other health debilitating encounters.

Bartsch et al. (2020) examined the financial impact of the COVID-19 pandemic on individuals and the national level using a Monte Carlo simulation model. The model predicts a cost of over $3000 for an individual and a national cost of over $163 billion for the entire pandemic period. Bartsch et al. explained that COVID-19 would create a financial impact on the United States healthcare system. Health care professionals and lawmakers feared that the current capacity could be overwhelmed, and extra resources might be needed. Asmundson and Taylor (2020) advised that low health literacy subsequently results in more disease issues, occurrence issues, and persistence. Refining health literacy might indicate health information knowledge on disease prevention, enhance longevity, and increase health outcomes (Asmundson & Taylor, 2020).

Types of Health Literacy

Nutbeam (2008) identified three types of literacy skills established through proper education and informal individual proficiencies: functional, interactive, and critical. Nutbeam (2008) and Nutbeam et al. (2018a) explained the following types of health literacies: (a) functional literacy is a requirement to perform common daily activities related to health in numeracy, reading, and writing, (b) interactive literacy is reasoning and literacy capabilities needed to contribute to routine communication in health topics and implement innovative information to alter conditions, and (c) critical literacy is essential in analyzing and processing information in expressing self-efficacy to help preserve life and to contribute to the well-being of society.

Rademakers and Heijmans (2018) stressed the importance of functional health literacy and other elements such as understanding, cognitive capabilities, information managing, behavior, emotional, and instinctive qualities. Functional health literacy conveys a unique understanding of health risks, properly utilizes the health system, and applies health-related knowledge to the necessary activities (Nutbeam et al., 2018a). Understanding various health literacy classifications enables healthcare providers and managers to differentiate needed strategies to improve low health literacy in prescriptions devotion and behavioral modification to attain autonomy in health decisions (Nutbeam et al., 2018a). Hickey et al. (2018) conducted a study to address the importance of functional health literacy in older adults with comorbidities and economically challenged, focusing on distinct ethnic populations. Additionally, Hickey et al. found substantial variations in older populations, minorities, and individuals with English as a Second Language in health literacy.

Global Highlights of Low Health Literacy

Increasing global health literacy intervention on healthcare utilization might improve health outcomes and reduce healthcare costs. There is a proliferation of research on low health literacy due to its detrimental effect on individuals' overall healthcare systems domestically and internationally. Trezona et al. (2018) believed that research had provided reliable proof to identify low health literacy as a public health concern worldwide. Trezona et al. added that health literacy is achievable through an operative health education intervention and the enhancement of the health system. Furthermore, Trezona et al. conducted a systematic exploration of several countries such as Australia, Austria, China, New Zealand, Scotland, and the United Kingdom to present how they incorporated health literacy goals and strategies into their health policies. These countries emphasized specialized education to enhance interaction between health consumers and the healthcare system to advance health literacy (Trezona et al., 2018).

The World Health Organization (WHO) recognized health literacy as a basis and threat to health with initiatives to accomplish liberation and fairness through investment in maintainable growth (WHO, 2017). Paakkari and Okan (2019) presented several arguments on health literacy related to education: (a) health literacy is the result of education, (b) health literacy is significant to the primary proficiencies of OECD, and (c) the educational foundation should include health literacy. In a study involving the correlation between adolescent health literacy level and household, sex, wealth, self-assessed health in 12 European countries, the children in Finland and Macedonia scored higher on health literacy level when compared to other children in the study (Paakkari et al., 2020). Paakkari et al. (2020) established variations in health literacy parallel among the participants in various socioeconomic positions. Additionally, the authors confirmed the integration of health literacy education into the school curriculum in Finland (Paakkari et al., 2020). This study and other numerous examples of the positive impact of health literacy illustrate the achievement of adequate health literacy with proper implementation in early childhood. Understanding health literacy facilitates a plethora of knowledge to healthcare providers and policymakers in providing educational resources for children, adolescents, and adult levels to meet the demands to improve health outcomes.

Global health literacy promotion is evidence in many country’s health policies to identify problems and interventions to increase health literacy. The implementation of the

Shanghai pronouncement fostering health in the 2030 sustainable development program encompasses difference components involving health literacy to achieve a global healthier society (Pleasant et al., 2020; WHO, 2017). Pleasant et al. (2020) recognized the Shanghai declaration as the highlight of health literacy promotion in the global arena; they mentioned several initiatives from other countries to address health literacy, the vision for health literate Canada and the New Zealand health strategy 2016 to 2026, strategic plan on health literacy should be used as a guide for Chinese citizens (Pleasant et al., 2020). Recognizing educational departments and government policies in bringing health literacy awareness is essential in the early stages of the development of health literacy (WHO, 2017).

The economic burden of low health literacy, health inequality, poor quality of life, and low healthcare utilization are concerns for personal and societal wellbeing globally. Health literacy intervention has potential benefits for health and financial outcomes for society and organizations. Stielke et al. (2019) reviewed numerous peer-reviewed journals and confirmed a relationship between cost-efficiency and health literacy mediation. Furthermore, Stielke et al. illustrated a return on investment and social return on investment from a thriving health literacy program. Hashemi-Shahri et al. (2020) warned that the COVID-19 global pandemic had presented misinformation, personal confusion, and economic hardship to society. Health literacy intervention is essential to enable individuals to make good health decisions (Hashemi-Shahri et al., 2020).

Health literacy is a global challenge that needs personal, community, organizational, state, local, and international bodies' involvement to educate the global populations on health concerns. As globalization has created more movement and interactions enabling the spread of outbreaks, improved health literacy becomes imminent, as proven by the COVID-19 global pandemic disasters. Abdel-Latif (2020) reported the Corona Virus pandemic as the significant difficulties the healthcare organizations and policymakers have encountered in the 21 st century. The emphases of this study are to understand how adequate health literacy can impact the US population in health utilization and increase profitability for health insurance companies and reduced expenses per patient.

The Influence of Low Health Literacy on Patient's Health

Several studies and literature reviews have identified poor health literacy as an influential determinant of good health that impacts different facets of wellbeing (Healthy People 2030, n. d.; Michou et al., 2018; Pelikan et al., 2018; WHO, 2017). In these studies findings, individuals experiencing poor health literacy have deprived health behaviors and results, and exhibits low preventive care initiatives (Schillinger, 2021), lacked knowledge on self-medical disorders, lacked self-efficacy managing conditions, engaged in healthcare overutilization and underutilization in other cases, experienced a lack of illness control, and more significant mortality and morbidity (Michou et al., 2018). Schillinger (2021) identified that low health literacy interrupts effective communication and understanding between healthcare professionals and patients.

MacLeod et al. (2017) study's findings indicated that older patients with limited health literacy (HL) supported other studies' discoveries, adding that the poor HL is prevalent in older populations with chronic conditions, particularly males, poor education, and advanced comorbidities. MacLeod et al. maintained that low HL was related to poor patient happiness, low adherence to preventive care, problems in the national healthcare system, increased expenditures, and excess use. They projected a continuous heightened economic impact as the population ages and pointed out the implementation of adequate health literacy programs to remedy the problem (MacLeod et al., 2017).

Svendsen et al. (2020) argued that people who exhibit adequate HL possess more significant health knowledge than adversaries with limited health literacy. A similar study involving youth and young adults battling end-stage kidney disease (ESKD) investigation on the relationship between individuals with limited HL and sufficient HL level of healthcare use confirmed an opposing view to other scholars that no significant variation exists on the level of healthcare use, emergency department use, duration of hospitalization, and avoidable hospitalization between patients with insufficient HL and patients with sufficient HL (Levine et al., 2018). In addition, Levine et al. noted that a higher level of healthcare utilization was related to a specific subgroup, identifying insurance type and the marginalized population. A few of the presented studies illustrated a significant gap in the disparities faced by the minority population in health literacy level. Understanding an individual’s health literacy level is crucial in implementing strategies to increase health literacy on medical utilization to reduce healthcare expenses.

Another set of researchers demonstrated the impact of a successful education program on wide-ranging health literacy skills in developing health literacy to influence behavioral health change in older adults (Uemura et al., 2018). Walters et al. (2020)

reported that health literacy mediation is efficient in behavioral health transformation. Walters et al. detected the lack of patient-oriented results and mediations. Walters et al. suggested that patients should participate in structuring the health literacy program instead of instructing health consumers on how to make changes. The overall goal of health knowledge education is to create health awareness for healthcare stakeholders to implement change.

Medical/Healthcare Service Utilization

Identifying the numerous services and centers is essential in analyzing healthcare utilization and groups responsible for higher healthcare costs. Centers for Medicare and Medicaid Services (2017) described various categories of healthcare service utilizations deliveries. The available delivery for patients is facilities, such as hospitals services, ambulatory services, dental, home health, nursing, prescriptions, durable and nondurable medical equipment (World Health Organization, 2017). According to Mitchell (2020), In 2017, the Medical Expenditure Panel Survey identified that the bottom 50% of the U.S. population were classified to spend fewer dollars than the top 1% of the highest users of healthcare services with average yearly spending over $115,000. Mitchell added that the national healthcare higher spending concentration in the U. S. is within the 5%, 10%, and 30% of the population.

Medical utilization involves over and underutilization of medical services. Health service over and underuse may result in higher healthcare costs and diseases due to the lack of preventive care, creating monetary challenges for patients and health insurances organizations. Schillinger (2021) observed that people with limited health literacy use higher healthcare services. Gawron et al. (2021) affirmed that barriers to healthcare utilization, such as poverty, race, ethnicity, and comorbidity encumbrance, separately determine involvement in health screening. Goto et al. (2019) argued that environmental conditions related to jobs obligation, access to a health provider, and living situations were significant in participating in healthcare use. Health literacy and healthcare modifications, including primary health screening, supports increased participation (Gawron et al., 2021). Improving access to healthcare and primary care is essential to obtaining routine check-ups to detect diseases early.

Healthcare utilization expenses can create privations for individuals suffering from various diseases, especially cancer. Zheng et al. (2020a) conducted a study of cancer patients’ survival to investigate the correlation between the financial difficulties related to medical and nonmedical expenses involving medical utilization and self-evaluated health. Zheng et al. found that patients with frequent emergence room visits, poor preventive care, and low self-evaluation of health incurred increased medical and nonmedical economic adversities. Zheng et al. (2020b) confirmed that the preceding studies align with other studies findings that cancer patients have much higher overall medical and nonmedical costs when compared to patients with other diseases. Health literacy interventions might bring understanding in early health screening and disease detection to reduce the further overall hardships related to health.

Overutilization is one of the prevalent factors for higher healthcare costs in the United States. Berkowitz et al. (2018) stated that lessening elevated healthcare costs associated with higher utilization is a shared objective of the health community. In research related to healthcare consumption and spending, the authors confirmed that food insecurity was one of the determinants of overutilization involving constant emergence room services and inpatient stay (Berkowitz et al., 2018). Health literacy mediation is crucial in understanding adequate healthcare utilization to reduce financial waste. Clark's et al. (2020) study showed that older people were prone to potentially inappropriate medication (PIM), which was confirmed to amplify healthcare utilization and costs. The consequences of high healthcare utilization are the increased costs to patients and health insurance companies.

Various researchers have attributed higher healthcare utilization and expenditures to an older population with different health needs in the U S. Research to understand the healthcare utilization and economic costs of older individuals with a reduction in mobility shows that as the number of older populations increases, so will utilization and costs increase (Cheng et al., 2020). Although, Cheng et al. (2020) affirmed that gaps exist in the financial burden connected to healthcare utilization of the older population, particularly with reduced physical activities, and recommended less expensive interventions to enhance wellbeing for people with this condition. These studies have affirmed that healthcare managers must educate patients on adequate health utilization to mitigate costs.

Chisolm et al. (2021) presented a paucity of studies to establish the relationship between health literacy, health service utilization, and the transition speediness of youths with exceptional healthcare necessities. Chisolm reported results varying with other studies that there was a slight relationship between HL and transition readiness. Chisolm et al. (2021) noted evidence that emergency department stays increase utilization, as was established by various researchers investigating healthcare utilization and costs. This study's findings provided innovative awareness in the part health literacy plays on youth transitioning from pediatrics to self-managed healthcare (Chisolm et al., 2021). In another study, Goto et al. (2019) observed a disconfirming relationship between health literacy and health service utilization, confirming that universal health insurance in Japan and Taiwan might be a determinant of accessibility, affordability, and health service utilization. Goto et al.'s further confirmed that frequent emergency department visits resulted from existing medical conditions and obesity instead of health literacy. Goto et al. argued high participation in employees' annual voluntary preventive care was a factor in medical services uses rather than health literacy. The importance of adequate HL was proven to mitigate healthcare utilization and costs in other studies.

Estimating over-utilization of healthcare services is challenging due to various factors in calculating excess utilization. Van Diepen's et al. (2018) study categorized variation in hospital utilization into low, medium, and high in investigating patients with Non-ST-Segment Elevation Acute Coronary Syndrome (NSTE ASC) critical care unit use. They found that the critical care unit contributes to approximately half of all hospital costs, and the group of patients mentioned above has increased hospital consumption (van Diepen et al., 2018). Another observation van Diepen et al. (2018) discussed was that patients who adopted low utilization contributed to an estimated savings of more than $100 million during the duration of the study and realized more than $18 million yearly in reserve. In another research study on healthcare use in an underserved, incomedisadvantaged community, Hargreaves et al. (2019) found that low utilization of preventive healthcare service in patients with adverse childhood experiences could contribute to deteriorating health standing. However, Hargreaves et al. confirmed, van Diepen et al.'s findings that individuals with high comorbidity have greater healthcare use and expenses. This study is significant in demonstrating the impact of interventions that could reduce healthcare overutilization and costs.

Lack of healthcare access and health information leads to inadequate utilization. Goto et al. (2019) proved that individuals with paid universal healthcare access have a higher rate of sufficient medical utilization. In their study, to afford and obtain access to care, employer initiation for routine care supported adequate healthcare use. Overutilization of healthcare services leads to higher-than-expected healthcare costs for health insurance companies and patients. Overall, health literacy interventions could help patients understand the impact of healthcare utilization, under and over-utilization involving hospitalization, emergency room visits, inpatient services, and other forms of use. Although Goto et al. made an opposing discovery, they agreed that healthcare intervention by access, affordability, and service increased healthcare use regardless of health literacy. Engaging in adequate healthcare utilization is essential in detecting treatable diseases early. Healthcare providers, managers, and researchers are the primary educators supporting health literacy to reduce the nation's health costs. Increasing health outcomes through health literacy intervention is proven through research and meta-analysis of past and current data.

Gap in Literature

A notable gap exists in understanding the impact of health literacy on healthcare professionals in resisting vaccination. Although El-Elimat et al. (2021) identified various factors responsible for vaccine hesitancy, mentioning transparency and established that healthcare professionals provides the best dependable communication on COVID-19 vaccine. El-Elimat et al. did not explain why medical doctors, nurses, and other well-educated individuals have refused to get their Covid-19 vaccine shots and boosters amidst this current pandemic. Numerous other notable gaps exist in research on the relationship between health literacy intervention, health outcomes, and health literacy measurement scale. Okan et al. (2018) identified gaps in children and adolescents' health literacy research. To enhance the accuracy of the health literacy measurement scale, the standardization of health literacy measuring instruments, particularly in children and adolescents, is proposed (Okan et al., 2018). Similarly, Schillinger (2021) acknowledged several health literacy research gaps associated with the reliability and validity of the measuring tools to reduce bias and error. Furthermore, Schillinger pointed out that research is eminent in minority populations with insufficient representation due to certain beliefs as the population with the highest health inequality.

Additionally, Schillinger (2021) found that it is essential to expand and improve HL studies to understand the perspectives of more researchers in this field. Using descriptive research to include health disparity and multiple ethnic populations might aid positive health outcomes (Schillinger, 2021). Crossley et al. (2020) observed the paucity of research related to patients’ low HL and proposed a research focus to address healthcare providers’ receptiveness to people in reducing limited health literacy.

Transition

The purpose of this qualitative, multiple case study was to explore the strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. In Section 1 of this study, the major topics addressed were the problem statement, purpose statement, nature of the study, research, and interview questions. The inclusion of the conceptual framework, the health belief model, forms a lens to view the research question and is essential to understand various constructs crucial in making behavioral health change. The operational definitions of a few terms include assumptions, limitations, and delimitations surrounding the study. Conclusively, to review existing data on the study, I presented the analysis and synthesis of the health belief model (HBM), the Andersen model, and several constructs, healthcare costs, overview of the U.S. healthcare costs, and health literacy.

Section 2 included the expansion of the purpose statement, the explanation of the role of the researcher and participant in a study. In addition, the research method and design, population and sampling criteria, ethical research protocols, data collection instruments and techniques, data organization techniques and analysis, and reliability and validity were presented. In Section 3, I illustrated the findings, recommendations for business, application to professional practice, reflection, and conclusion of the study.

Section 2: The Project

Data collection and use of semistructured interviews were primary methods for this qualitative multiple case study to identify strategies private health insurance managers use to reduce healthcare costs originating from medical utilization. In this section, I reiterated the purpose statement, identified the researcher's role, and explained the participant's selection procedures in the study. Additionally, I discussed the research method and design, population and sampling, and ethical research protocol involved in this study. Furthermore, I discussed the data retrieval instruments, techniques, organization approach, and analysis to complete this study. Importantly, I also explored the processes to achieve reliability, validity, and the summation of the project in this section of the study.

Purpose Statement

The purpose of this qualitative, multiple case study was to explore the strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. The targeted population consisted of private health insurance managers from two health insurance companies in Nevada who have at least 3 years of experience effectively improving patients' health literacy on medical utilization to reduce healthcare expenses. The findings of this study may have a positive social change in creating health-literate individuals for improving communities' citizens' health and reducing patient healthcare expenses.

Role of the Researcher

The researcher is crucial in collecting relevant data to establish findings beneficial to academics, institutions, and organizations. Therefore, the researcher must collect and use data integrity to avoid biased and unethical research. The public perception of a researcher, particularly at the doctoral level, is highly regarded as knowledgeable, and this thought influences my commitment as a researcher to achieve quality research. Geddis-Regan et al. (2021) described a researcher as a data collection instrument, analyst of data, and knowledgeable source in answering questions related to the researcher's role. My role as a research instrument was to search, document, analyze, interpret, and present findings from interviews and archived records to my academic institution and beyond.

I have over 10 years of working experience in healthcare organizations, billing, coding, and processing medical claims from various health insurances. The knowledge acquired from the job facilitated my comprehension of critical concepts on strategies to increase health literacy on medical utilization to reduce healthcare costs. Notwithstanding my affiliation with the healthcare industry dealing with medical billing and seeing first-hand the impact of healthcare costs on individuals, private, and public insurance, it is paramount that I present credible findings free of bias. Hammersley and Atkinson (2019) posit that participant and researcher rapport is crucial in conducting quality research. A researcher engages several empirical case design studies to retrieve information through semistructured interviews and analysis of firm documents (Yin, 2018). I did not have any prior or existing relationships with the participants for my interviews. As the research instrument, my role entails avoiding certain biases that might challenge my findings credibility.

The role of a researcher concerning ethics in following the research process is vital to achieving ethically grounded research. Saunders et al. (2019) identified the integrity and objectivity concerning the researcher, respect for others, non-maleficence, confidentiality, and maintaining safety. The *Belmont Report* specified three guiding principles in conducting ethically acceptable research: justice, respect for persons, and maleficence (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). As a researcher, I was obligated to adhere to the *Belmont Report* principles of respect for persons by treating each of my participants as an autonomous representative and providing the necessary information regarding informed consent. I ensured beneficence by maximizing research benefit, reducing risks to the participant, and expressing justice by treating the participant justly throughout the interaction. Furthermore, I retrieved data by following the University's ethical standards and the *Belmont Report's* ethical research principles, including human subjects. I ensured that I received informed consent from all the participants, protected their privacy and confidentiality, and provide access to data if requested.

Saunders et al. (2019) recognized three kinds of bias in conducting semistructured interviews: (a) interviewers bias, non-verbal conduct influencing the participant's answer; (b) response bias, participant sensitivity related to being interviewed; (c) participation bias, originated from a person or firm's individualities. I mitigated researcher bias by including all the data collected from semistructured interviews in my transcription and interpretation. To avoid participants' sensitivity towards the interviewer, I conducted my behavior, including facial expression, to allow the participant to answer interview questions freely. Johnson et al. (2020) proposed that researchers illustrate credibility by presenting honesty and transparency in acknowledging bias during the research process. Fusch et al. (2018) found that a researcher can lessen bias by selecting of appropriate data collection techniques applicable for the study. To maintain research objectivity includes: (a) collecting data using the proper method and (b) avoiding the three types of bias identified to support the validity and credibility of this study.

Mitigating bias is part of the researcher's role and involves methods for presenting the inquiry, ascertaining rapport, and clarifying answers (Bergen & Labonté, 2020). I reduced bias through asking questions and adherence to the Walden IRB principles of research ethics. Mallon and Elliott (2019) studied novice and experienced researchers who acknowledged facing convoluted personal and professional sentiments regarding their work. Fusch et al. (2018) found that information from a personal lens is a few of the main difficulties' novice researchers face when conducting qualitative research due to the conventions of new researchers regarding lack of bias in data collection. As unnatural as removing bias, I strived to lessen the researcher's bias, and avoided a personal perspective or dispositional influence during data collection and interpretation. Yin (2018) recommended applying member checking or transcript validation to prevent misconceptions and individual opinions in mitigating bias. I conducted a follow-up interview with the participants for member checking of transcript interpretation to confirm the accuracy of data prior to the interpretation of findings. Although unforeseeable circumstances could present challenges in the interviewing process, I accomplished my data collection goal through proposal completion with the Walden IRB approval number required for doctoral students.

Saunders et al. (2019) postulated that an in-depth interview allows a researcher a chance to explore findings through the five P's: "prior planning prevents poor performance" (p. 401). Yeong et al. (2018) identified a dependable interview protocol as critical to collecting excellent interview data. I abide by the interview protocol (Appendix A) for my study in interviewing participants. Yin (2018) recognized several typical case study interview protocols: (a) the overview of the study, (b) data collection procedures, (c) protocol questions, and (d) a brief outline for the study report. The interview protocol was a guide to maintaining consistency and direction. I shared the interview protocol prior to starting the interview and followed the protocol by presenting the questions in an orderly list. I recorded the interviews, took notes, and collected relevant participant data for interpretation of findings. Adherence to interview protocols ensured that I collected relevant primary data to explore strategies managers use to increase health literacy on medical utilization and a reduction of costs.

Participants

The eligibility criteria for this study required the participants to consist of private health insurance managers from two health insurance organizations in Nevada who have at least 3 years of experience effectively improving patients' health literacy on medical utilization to reduce healthcare expenses. I used a purposive method through email and telephone calls to reach selected participants who possess over 3 years of experience working on programs to increase patient health literacy and understand medical utilization. I emailed the study invitation letter (Appendix B) to the potential participants, which details the aim of the study, the voluntary, and unpaid nature of participation. Saunders et al. (2019) identified that a researcher is significant in selecting eligible participant based on the study concentration to address the research and interview questions. Forero et al. (2018) argued that using different purposive sampling approaches allows for an opportunity to achieve variation in proficiencies and the understanding to boost the credibility of the study outcomes. Furthermore, the purposive sampling of three participants from two organizations allowed me to collect quality data and address my research and interview questions.

I interviewed three private health insurance managers known for achieving effective strategies to increase health literacy on medical utilization to reduce expenses in Nevada. Moser and Korstjens (2018) posited that the sampling strategy is acceptable when the purposive sample and location chosen advance knowledge to the topic of the study. The sample consisted of three private health insurance managers from two organizations in Nevada responsible for strategies to increase health literacy on medical utilization to reduce costs. When Institutional Review Board (IRB) granted permission to conduct an interview, I proceeded with seeking access to participants through my personal network to conduct qualitative interviews. McGrath et al. (2019) identified qualitative interviews as the possibility of extracting deeper information particular to participants, understanding various exceptional occurrences and observations. Forecasting participants' sampling strategies in qualitative research involve the number of observations, interviews, focus group interactions required to ascertain if those outcomes will parallel rich data (Moser & Korstjens, 2018). I proceeded with the planning of collecting organizational information to locate a purposeful sample for initial contact.

Alexander and Smith (2019) identified the importance of administrative access as key to qualitative research. Among many strategies to permit access to participants identified by Saunders et al. (2019), ascertaining credibility, applying appropriate language, and pinpointing potential strengths to the organization were a few of the essentials in receiving acceptance. I established credibility as a Walden University doctoral student researching my doctoral study to explore the strategies to increase health literacy on medical utilization to reduce healthcare expenses. Additionally, I presented the participants with a well-crafted email using suitable languages highlighting that the participant's collected data and privacy remains confidential. I gained access to the participants through my personal network by identifying the leading company in health interventions. A researcher might offer an organization vital information to compromise for access through a study of concern within ethical principles (Alexander & Smith, 2019). I might offer to present potential anticipated study’s outcome benefits to participants or organization to facilitate access if necessary.

Abadie et al. (2021) proposed that many scholars have presented that building trust is a social development that enables the researcher and participant to comprehend both individual’s purpose and exchange shared goods. Building rapport with participants through telephone conversations, email, and visits to the organization are approaches to institute an influential association. McGrath et al. (2019) stated that the foundation to establishing rapport is a sense of closeness. Additionally, rapport is vital when interviewing to allow the participant to offer a rich and comprehensive encounter with the phenomenon (McGrath et al., 2019). I started a conversation with the potential participants concerning the research topic to build a rapport, and asked some polite questions on the participant's interest, and expressed appreciation for volunteering to grant an interview. A feel of rapport and, in some cases, an opportunity to interact with a researcher was essential to the respondent (Heath et al., 2018).

Research Method and Design

Basias and Pollalis (2018) postulated that research incorporates an innovative study following a methodical approach to enhance understanding to institute or approve data, mitigate issues, create innovative theories and solutions to problems. The methodology and design for my study were qualitative with a multiple case study to explore the strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. The research method and design enabled me to access in-depth information to answer my research question and understand issues and potential solutions to health literacy. The following subsections are the detailed explanations of the research method and design relevant to retrieve information for my study.

Research Method

The decision to use the qualitative research method was to share an interactive experience with my participants to understand the strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. I selected the qualitative method to interview, take notes, and analyze firms document to find answers in my exploration of my research question. Kim et al. (2017) addressed the importance of the practicality of qualitative method in achieving camaraderie and efficacy in acquiring rich data in gaining thoughtful replies and information. Using a qualitative method enabled me to interact with the participants and gained deeper insight into the concept of healthcare literacy. The findings from this qualitative research might provide individuals: (a) with adequate health literacy knowledge, (b) promote healthy well-being for life, and (c) reduce healthcare costs for patients, private insurance providers, and public health funding agencies. The qualitative method enabled me to use member checking from a small sample of knowledgeable and experienced individuals from two organizations to answer flexible research and interview questions to obtain relevant knowledge of the phenomenon for the study.

Gephart (2018) described qualitative organizational research as a numerous approach procedure engaging qualitative evidence involving linguistic codes and stories, spoken communication, and transcribed scripts to comprehend organizational practices. A researcher uses a qualitative method to answer questions and highlights outcomes to rationalize how and why a conclusion was reached (Holtrop et al., 2018). The preceding explanations and justifications were vital to selecting the qualitative method as an alternative match to address the research aim for the study. The qualitative method allows a researcher to collect unique information from an organization to interpret the study findings through an in-depth analysis to academia and the public.

The quantitative study includes the orderly and experimental examination of a phenomenon from a statistical and measurable approach analyzing numerical information to provide the primary relationships between observation and arithmetic illustration (Basias & Pollalis, 2018). A quantitative researcher retrieves numerical data with a homogenous questionnaire, controls variables, and the setting of the study (Rutberg & Bouikidis., 2018). Computing and comparing relationships using mathematical figures is not the emphasis of my research; therefore, I will not be using the quantitative research method; the quantitative method is a mismatch to the research objectives. Furthermore, Basias and Pollalis (2018) explained a mixed methodology to include qualitative methods to explore and interpret and quantitative methods to study phenomena using statistical assessment was not needed for my study. Depending on this research aim, I only needed to analyze and decode the strategies health insurance firms use to increase patient literacy on medical utilization to reduce healthcare expenses. The research question lacked variables to measure and compare the numerical data statistically, so the mixed method disqualifies as the selected method for this study. Although Creswell and Hirose (2019) maintained that the integration of the mixed method provides further understanding, I did not use the mixed method for this study. The suitable method to address the open-ended research interview questions was my qualitative method.

Research Design

There are various qualitative research designs: phenomenological, ethnographic, narrative, and case study. The phenomenological design focuses on discovering an individual's insight and *lived experience* to understand the phenomenon in the study

(Ataro, 2020). I was not seeking an individual’s lived experience of a phenomenon but rather an organizational strategy on a concept; therefore, a phenomenological design was not appropriate for this study. Ethnographic design is another design a qualitative researcher can use to understand the cultural perspectives of an individual or group. Ethnographic refers to learning about people from their experiences in historical and cultural contexts by immersion in the population and actively engaging with the participants (Jones & Smith, 2017). This study lacked the criteria to meet the requirements to perform an ethnographic study due to the absence of cultural groups. I did not use an ethnographic design for this study. Halkias and Neubert (2020) posited that a narrative design is similar to a phenomenological study exploring identity, understanding experience, and personal and social formed meaning on a particular concept. Narrative design involves telling a personal story of an individual s life account, which is not the intention for the participants to tell a personal narrative. I did not use a narrative design to explore the study phenomenon.

The case study design was the best option to understand and answer my research question on the strategies private health insurance companies use to increase medical utilization and reduce healthcare expenses. Scholars might use case studies for specific unfamiliar or under-assessed phenomena for limited or scarce empirical evidence of subsets of data (Çakar & Aykol, 2021). I used a case study to address the limited information on health literacy in healthcare organizations. Yin (2018) explained a case study as an empirical method that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be evident. A case study design includes two alternatives, single-case and multiple-case studies (Gustafsson, 2017). Yin (2018) added that the choice of a case depends on the theoretical disposition of the study and whether or not you are using participants from multiple locations or more than one location.

A single-case study is an adequate strategy based on these five single-case justifications: analytical, rare, usual, revelatory, and longitudinal case (Yin, 2018). Although, Hoorani et al. (2019) proposed that a single case study consists of one case. Therefore, a single case study is relevant for the concept of the study, but I did not use it. A researcher acknowledges that multiple case study ensures the exploration of more than one observation within and outside cases (Halkias & Neubert, 2020; Yin, 2018). Halkias and Neubert (2020) stated that a multiple case study ensures a deeper and holistic understanding of real-life events. A multiple case study enabled me to collect enough information and required no new information over a single case study to ensure data saturation. I chose the multiple-case study design to gain more information on the research topic and interview questions. Additionally, the multiple case study enabled me to develop a comparable or an opposing perspective from the two selected organizations on health insurance managers' strategies to increase health literacy on medical utilization to reduce healthcare expenses.

Lowe et al. (2018) indicated that a significant concept of qualitative research is data saturation. A researcher ensures data saturation by collecting data until no new information, codes, or themes emerges. Lowe et al. added that data saturation occurs when additional data is insignificant to explore extra information important to the research phenomenon. Part of guaranteeing data saturation for this study involved interview transcripts, a member checking process, and data analysis to generate relevant themes for interpretation of the findings. I interviewed participants and probed for further information until no more or no new information arise. I also analyzed the interview transcripts until no new codes and themes emerged. To validate the interview transcripts, I followed up with participants through the member checking process to confirm the accuracy of the interview data.

Population and Sampling

I selected participants for this study using population sampling. The study population consisted of private health insurance managers from two health insurance organizations in Nevada who have at least 3 years of experience effectively improving patients' health literacy on medical utilization to reduce healthcare expenses. Lu and Franklin (2018) identified population study, random sampling, and convenience sampling as the three methods of choosing participants that investigators might practice when conducting research. Lu and Franklin recognized population sampling as the "gold standard" with generalizability challenges essential to narrow the targeted population using purposive sampling. Sampling is vital in a study with a sizeable and physically isolated population; therefore, a researcher must devise a probability or non-probability sampling (Lu & Franklin, 2018; Tyrer & Heyman, 2016). Tyrer and Heyman (2016) advised that a sampling technique involves rigor to guarantee minor fault and bias and improve representation.

The two methods of population sampling encompass: (a) probabilistic sampling which, identified as the subjective decision of the investigator, and (b) nonprobability sampling involves numerous categories: purposeful, convenience, snowballing, and quota (Berndt, 2020; Bhardwaj, 2019; Elfil & Negida, 2017; O'Sullivan et al., 2016). Purposeful sampling is the appropriate strategy a researcher applies in choosing qualified participants to answer the research question (Elfil & Negida, 2017; Marshall, 1996; Tyrer & Heyman, 2016). The main criteria for choosing research participants depends on the participants’ knowledge and experience, voluntary participation, and compelling and articulated communication on the concept being discussed. Purposeful sampling was appropriate in selecting participants in this study to address the research and interview questions because the participants possess the intellectual ability to contribute to the primary data. I used purposive sampling to choose three managers from two organizations (one from one organization and two from the other organization) in Nevada to answer the research interview questions in the multiple case study.

The convenience sample includes using the most available participants to create high-quality data, and intellectual trustworthiness of research (Elfil & Negida, 2017; Marshall, 1996). I did not use convenience sampling because I was not seeking the most accessible participant. Snowballing sampling involves using current respondents to identify familiar future participants in difficulties recruiting respondents (Etikan et al., 2016). I did not experience challenges locating respondents; therefore, snowballing sampling was inappropriate for the study. Quota sampling depends on selecting participants with common attributes of the population without having prior knowledge of an individual’s demography (Lamm & Lamm, 2019). Quota sampling was not adequate for this study because I was not exploring the differences in subgroups.

Data saturation is when there is no new insight contributed to the body of the research, indicating that the researcher had reached the maximum informational redundancy (Alam, 2020; Saunders et al., 2019; Varpio et al., 2017). Constantinou et al. (2017) added that for a researcher to explore a phenomenon comprehensively to represent reality, transferability, confirmability, and dependability that a plethora of data are necessary. Consequently, data saturation demonstrates adequate data retrieval to explain the study and a standard that meets qualitative study's ontological and epistemological groundwork (Constantinou et al., 2017). Boddy (2016) suggested that the sample size selection is circumstantial in a qualitative study and partly based on the methodical paradigm directing the study. I reached data saturation with a sample size of three participants.

Multiple case studies involving more than two sample sizes contribute deeper information to the research to achieve data saturation than a single case study (Yin, 2018). Additionally, Boddy (2016) included samples encompassing a single case that provides essential and informative data but fails to reach data saturation. In this study, I used multiple case study to retrieve data through interviewing three participants. The sample size of three participants selected for this multiple case study to explore my interview questions produced sufficient information to reach data saturation. The triangulation of data using interviews, field notes, and the participant’s documents facilitated data saturation for this study.

Member checking and triangulation is another alternative to achieve data saturation. Lincoln and Guba (1986) explained member checking as participants' commitment in informally checking the research data to improve the credibility of information. Moon (2019) described triangulation as various approaches to collecting manifold data through archival documents, researchers, and theories to reach data saturation. Candela (2019) agreed that triangulation through member checking of data is part of achieving data saturation. I interviewed three participants and utilized multiple sources of data collection to triangulate to reach data saturation for this study to achieve the study objective of exploring strategies private health insurance managers use to improve health literacy on medical utilization to reduce healthcare costs, I used a population sample of nonprobability sampling involving a purposeful strategy of three participants from two health insurance organizations.

Ethical Research

Saunders et al. (2019) recognized the occurrence of ethical interests in research during planning, designing, requesting access to organizations and participants, and data collection, analysis, management, and reporting of findings. Scherzinger and Bobbert (2017) identified the research Independent Review Boards (IRBs) as the body that monitors research related to the safeguard of human subject participants in evaluating the risk-benefit level and the proper documentation focused on the anticipated participants. I started the data collection process when the ethics research committee ascertains various elements of the research proposal with the Walden IRB approval number 05-05-22-0982400.

Achieving informed consent to reach ethics standards, researchers must send consent information with: (a) the aim and nature of the study, (b) duration, (c) declaration of voluntary participation, (d) how to ensure data storage and the length of data storage, and (e) privacy (Manti & Licari, 2018). When participation was confirmed, I presented an informed consent form (Appendix C) to participants to sign and verbally explain in detail the propositions of participation specifying the right to accept, reject and withdraw from the study. Dankar et al. (2019) identified that respect for a person demands the self-rule of every person participating in a human research study. Furthermore, I respected participants' autonomy by considering choices made during the interview about respect for each person. I informed the participants that participating in the study is strictly voluntary, and there is no offer of incentives.

Fernandez (2020) proposed that the researcher anticipate the participant's withdrawal, accept the request exclusive of penalty, and present informed consent to grant understanding to minimize withdrawal requests. Additionally, the participants can withdraw from the study, free from consequences, as participation was voluntary. The withdrawal process involves letting me know the desire to withdraw through a formal email or stating the intention during the interviewing process; then, I must acknowledge the request to withdraw the participant from the study without asking for reasons. To complete the withdrawal process, I would remove the participant and the collected information from the study. Fisher et al. (2018) confirmed that a researcher should seek information on what participants desire the most, a financial incentive, a significant influencer for healthy research participation. To align with the ethical standards of voluntary and withdrawal rights, I did not offer any compensation or incentive; rather, the participant may receive a copy of the final study on request.

The Walden University (IRB) grants doctoral research students' confirmation in adherence to ethical values to proceed with data collection. The IRB's documentation guidelines concerning participants, data, and informed consent forms serve as a part of the human criteria a researcher must adhere to achieve ethical research (Scherzinger & Bobbert, 2017). I complied with the IRB's procedures, pledging for ethical research by following the Walden research ethics committee's various processes to achieve the review and approval before selecting participants. I placed my approved Walden identification number in my study after receiving approval from the IRB.

The National Commission for Protection of Human Subjects of Biomedical and Behavioral Research (1979) established the *Belmont Report's* research protocol to identify three directing principles: respect for life, beneficence, and justice. I abided by justice, respect for persons, and beneficence to conduct an ethical interview by: (a) being fair to participants, (b) protection for the participant, and (c) adherence to privacy. I ensured that I received approval from IRB prior to proceeding with data collection. I initiated the first contact through a request letter emailed to my targeted participants to express the study's intention and wait for feedback. I also presented the informed consent form to participants seeking understanding prior to each of them agreeing to participate in the research. The participant was obligated to answer with an email with the word, "I consent." Manti and Licari (2018) declared that participants must be given and understood research-associated information to accept or reject participation willingly.

The participant's privacy, anonymity, and confidentiality of data are paramount to a researcher and the research ethics committee. Saunders et al. (2019) stated that since research intends to answer questions related to a phenomenon, not related to the participant answering questions. A researcher must guarantee privacy, anonymity, and confidentiality in data analysis and writing of findings (Saunders et al., 2019). I concealed the identity of my participants with pseudonyms and coded alphabetically rather than use their actual names in adherence to anonymity in ethical principles. Affirming the confidentiality of the research to participants, a researcher may obtain rich data because of participants guarantee of these safeguards (Lancaster, 2017). To conform with the ethical standards, I protected the collected information for this study, including consent forms, recorded data, transcripts, and other documentation on a hard drive, and will destroy the data at the lapse of 5 years. Before initiating the research proposal, I contemplated my safety and the risks to contributors and ways to avoid harm to participants by upholding the privacy of individuals and the data collected in this study.

Data Collection Instruments

In this qualitative research using multiple case study, I was the primary data collection instrument. Johnson et al. (2020) and McGrath et al. (2019) suggested that the researcher symbolizes the primary tool for gathering data. In this study, I collected data through semistructured interviews using eight open-ended questions. Interviews were an effective and credible qualitative data collection tool for learning a phenomenon by exploring the experiences of a population (Muthanna, 2019). Muthanna (2019) indicated that researchers utilize semistructured interviews involving questions to request enough information to answer the phenomenal quest for the study. Iyamu (2018) recognized that the face-to-face interview method increases data collection, probes answers, observes verbal cues, and receives detailed information from participants' experiences. I incorporated probing questions to obtain more information to enrich the data collection.

The interview protocol required me to present detailed interview questions for data collection. Iyamu (2018) proposed that data collection follows five directing ideologies: research ethics, interview protocol, pilot interview, choosing participants, and demographic of respondents to enhance reliability, validity, and originality of information. Yeong et al. (2018) argued that a researcher collects valid qualitative data using a consistent interview protocol. The data collection process that applies to this study: (a) interview protocol consisting of eight open-ended questions, as shown in Appendix A, (b) probing follow-up questions, (c) and member checking method to direct conversations. A researcher must implement data collection protocols through locating participants, gaining access, and collecting data (Saunders et al., 2019). Yin (2018) noted that case study data collection follows standard protocol; although, a researcher faces uncertainty in collecting answers relevant to interview questions. I engaged with the participants through virtual interviews using eight listed open-ended questions guided by the interview protocol. Additionally, I reviewed publicly available documents relevant to my research phenomenon, including participant’s flyer on health literacy programs that experienced managers of private health insurance companies use with their patients.

Saunders et al. (2019) indicated that a researcher uses probing questions to explore additional answers meaningful to the phenomenon. Kross and Giust (2019) clarified probing questions as a subsidiary question focusing on the particular elements of the original question. I used probing questions to extend conversations to refine and collect meaningful answers to the research topic. A significant concept of research triangulation involves participants in member checking (Candela, 2019). I included a member checking process to validate interview transcripts by participant feedback to confirm data accuracy. According to Saunders et al. (2019), before presenting the recording device to the interview, the participant would have the information and reasons why tape recording was necessary to support and enrich data interpretation, coding, and transcription in its originality. I explained to participants that a researcher uses a recording device as part of a data collection instrument, enabled detailed understanding, and analysis of data during the interviewing process.

The trustworthiness of data conveys the validity and reliability of qualitative research using the relevant model fitted for the study purpose (Rose & Johnson, 2020). Rose and Johnson (2020) described validity as the exactness of answers and reliability as the consistency of the research method selected and how a researcher pragmatically expressed the approaches utilized in the study. A qualitative researcher can introduce trustworthiness through credibility, dependability, confirmability, and transferability of research findings (DeJonckheere & Vaughn, 2019, Guba & Lincoln, 1985; Lemon & Hayes, 2020). I triangulated data, such as interview transcripts, field notes, and participant program flyer, to confirm the trustworthiness of data in identifying strategies to increase health literacy on medical utilization to decrease healthcare costs.

Triangulation consisted of using two or more data sources and methodology to verify the trustworthiness of study data, analysis, and interpretation (Saunders et al., 2019).

Braun and Clarke (2021) stated that data sufficiency or saturation is vital to the trustworthiness of qualitative research. To maintain the accuracy of findings and uniformity of research methodology, I confirmed data accuracy through member checking with the participant confirmation to reach data saturation. Furthermore, improving the validity of this study ensured that I interpreted and presented the accuracy of data with the help of the recorded data. Moser and Korstjens (2018) identified data saturation as the end of data analysis and attaining sufficient data on the topic. I ensured data saturation through member checking and triangulation by adding data from the organizational archival documents and booklets related to the topic from other sources to improve the trustworthiness of this study.

Data Collection Technique

The initial step to data collection was receiving approval from the university ethics committee to proceed with data retrieval after ascertaining that a student has met and understands ethical values concerning the human subject. Young et al. (2018) indicated that data collection techniques have numerous approaches, such as telephone, virtual, and face-to-face interviews. A face-to-face interview allows a researcher to gain insight into the participant's physical body expression when addressing research questions (DeJonckheere & Vaughn, 2019). A face-to-face interview will enable a natural interaction between the researcher and the participants in response to each question, ensuring that the participant expresses knowledge relevant to interpreting findings (Löhr et al., 2020). Due the global COVID-19 pandemic, I utilized semistructured interviews involving Zoom videoconferencing with participants to present eight open-ended and follow-up probing questions to collect data. I also collected data through participant's program flyer related to the topic. During the interviews process, I used field notes and a recording device to collect data for accurate analysis and findings interpretation. DeJonckheere and Vaughn (2019) recommended giving informed consent to participants on audio recording for data collection and allowing the participant to decide. Philippi and Lauderdale (2018) stipulated that field notes significance in collecting interview and organizational data aids in yielding copious, richly descriptive, helpful contextual information useful to research.

DeJonckheere and Vaughn (2019) stated that semistructured interviews are flexible, iterative, information gathering, insightful, and the critical source of information for a qualitative researcher. McGrath et al. (2019) suggested that interviews should not be casual conversation; instead, interviews are data collection mechanisms used to access answers to several research questions. Following the interview protocol (Appendix A), I enhanced the semistructured interview's credibility and asked questions to maintain consistency. I used the following interview protocol to guide the collection of data: (a) I contacted the participant to reconfirm time and location, (b) a brief introduction of the study, (c) presents an informed consent form already emailed to the participant. (d) explained the duration and recording nature of the interview and confirmed the recording agreement. (e) started the interview following the interview protocol, (f) I then thanked the participants and gave information on member checking for a follow-up interview.

Data collection techniques through semistructured interviews were comprised of both strengths and weaknesses. The strength of using semistructured interviews is that it enables a researcher to use many open-ended questions and probe answers, elaborate, or develop more answers (Saunders et al., 2019). On the contrary, semistructured face-to-face interviews hold several challenges concerning time, cost, and participants' ability to communicate that might be unpredictable. Another challenge was the anticipated concerns of the researcher's skill to collect valuable data to answer questions. Roberts (2020) acknowledged that a researcher's ability and the relevance of interview questions presented determines the worth of the data retrieved during an interview. Considering the advantages and disadvantages of semistructured interviews, I anticipated conducting a quality interview to collect credible and reliable data. I projected that the duration of the semistructured face-to-face interviews involving three participants from two organizations would last 45 to 60 minutes each.

To conduct a pilot study helps researchers understand the due process of interviewing protocol before commencing data collection. Lowe (2019) indicated that a pilot study is to assess the data collection techniques and tools for excellence and relevance. In a prior experience similar to a pilot study, I conducted for a class assignment with two participants, presented research expectations, and dealt with areas of strength and weaknesses in interacting with participants. Young et al. (2018) explained that conducting a pilot interview is significant in data collection to ascertain sufficient relevant data for transcription to explore the concept.

Birt et al. (2016) described member checking as encompassing a variety of actions involving the validation of interview transcript through an uninterrupted read-through and approval by the participants to mitigate bias. Candela (2019) posits that member checking is when a researcher presents data to the participant to review for correctness. To ensure the accuracy of the information the participant provided, I conducted a follow-up interview with the participant to make relevant changes. A few days after conducting the interview, I returned the interview transcript summary to participants for verification of data interpretation to confirm the accuracy of information after a few days to enhance the credibility and validity of data.

Data Organization Technique

Various processes are relevant to organizing the raw data collected during the interview with participants and the secondary data from other sources. Data organization techniques are meaning a researcher uses to differentiate among raw data retrieved from participants and the researcher's explanation of data (Yin, 2018). I used an Evernote recording pen and other recording devices to take notes and captured interview audio for data coding, NVivo for transcription, coding, and thematic analysis. Maher et al. (2018) stipulated that NVivo provides applicable data management and reclaimed storage for analysis and write-up. I stored and managed my interview data with NVivo data analysis and interpretation. Van Wyk et al. (2020) found that the management of research data offers accessible admittance to data and involves (a) saving data, (b) adding metadata, (c) backing up, (d) securing of data, and giving access to co-researchers. I organized, filed, saved, backed up, and adequately labeled each interview from an individual participant with pseudonym P1, P2, and P3 including date, time, year, field notes, informed consent, and organizational documents for easy retrieval. Effective data management and organization and their analysis are requirements for writing research reports and distribution of study (Maher et al., 2018). I used data storage management software, such as EndNote, NVivo, and Zotero, to save and manage data for easy access.

Maher et al. (2018) identified the eminence of rich and significant interaction with data and noted that data documentation, management, and organization offers a translucent audit trail. In this study, I documented the participant's consent form and archival information from the organization to necessitate proper storage through a personal safe to protect participant and organizational confidentiality. I have stored all the data on my personal computer protected with a password lock exclusive to me. After 5-years, all data related to the participants, as required by the IRB, will be electronically deleted and shredded.

Data Analysis

Miles and Huberman (1994) proposed analyzing data collected from a case study by reasonably connecting information to a planning sequence and constructing the impending data. I analyzed participants responses by coding and rearranging codes to create themes for study result. Lester et al. (2020) proposed that interpreting data analysis in segments holds significance in the clarity of the method used for the researcher and readers of the research findings. Lester et al. (2020) described several stages of data analysis: (a) planning and categorizing data, (b) transcribing the information, (c) understanding the data size, (d) memoing the information, (e) coding the documents, (f) creating group and themes from the normal coded path, and (g) making the analysis procedure apparent. I initiated the first data analysis stage to become familiar with the recorded data by listening, transcribing, and understanding the raw data for precise analysis. Using all of the strategies Lester et al. (2020) presented was vital to practical data analysis of the study data.

After collecting primary data from participants through semistructured interviews, data analysis followed to understand the information collected, transcription, coding of data, and the interpretation of the findings. Lester et al. (2020) described the thematic analysis as the presentation of codes, elaboration of groups, and finally, the construction of themes. I applied thematic analysis. Varpio et al. (2019) specified that an inductive thematic analysis method involving grounded concepts originates themes from the investigator's data. I used the thematic data analysis to concisely present the raw data to other researchers' comprehension. Kiger and Varpio (2020) proposed six conventional frameworks for conducting a thematic analysis of data: acquainting self with the data, producing preliminary codes, seeking themes, revising themes, describing, and identifying themes, and generating reports. In analyzing qualitative interview data, a researcher can use a computer-assisted instrument known as NVivo software, which is a data analysis program to analyze the recorded interview data (Alam, 2020). I analyzed the primary interview data using NVivo 12 to form codes and themes from the interview transcripts.

Denzin (1978) mentioned four categories of triangulation: data, investigator, theoretical, and methodological triangulation; a researcher can implement to view research questions from various data sources and viewpoints. Methodological triangulation uses numerous approaches, such as field notes, observation, and interviews, to collect comprehensive and relevant data (Abdalla et al., 2018; Fusch et al., 2018). I used methodological triangulation, which involves using data from my interviews and my field notes, participant's program flyer, and other sources for an in-depth understanding of the topic to obtain themes for the study report. Methodological triangulation enabled the parallel of interview data, participant's flyer, review of literature data, conceptual framework, field journal notes, and observations in gathering data for the final study (Fusch et al., 2018).

Saunders et al. (2019) posited that thematic analysis combines connected data drawn from various transcripts and notes and classifies key themes or patterns from documentation for further consideration. During the coding process, which Williams and Moser (2019) determined plays a vital role classifying data to identify themes. Williams and Moser added that the coding process must be defined, rigorous, and constantly applied to correspond validity and reliability customary to qualitative research. I integrated my journal field notes, interview transcript, conceptual framework, and literature about the phenomenon to form themes. After coding, I identified several key themes related to my research questions, and the conceptual framework and incorporated them to analyze study's findings. The research question is the focus of the study, and it impacts the selection of various elements of research, particularly data analysis and finding results (Saunders et al., 2019). I used critical themes identified during the coding process relevant to the research question and the conceptual framework for the study's interpretation of findings.

Reliability and Validity

Research design and procedures are checked for reliability and validity to achieve acceptable quality work, particularly in qualitative and quantitative studies using key research questions. Yin (2018) recognized construct, internal, and external validity and reliability as standards to justify research design excellence. Although, construct and internal validity are applied to a quantitative study to quantify and correlate two or more variables (Yin, 2018). To verify the consistency and accuracy of this study, reliability, validity, credibility, dependability, transferability, confirmability, and data saturation are crucial to presenting quality research in this explorative study.

Reliability

The replication of study to prove the reliability of similar observations from the study results to mitigate bias and erroneous information is crucial to research quality (Yin, 2018). To prove the reliability of a study, a researcher must document data, create acceptable research archives, follow research protocols, and uphold established principles instituted by the research experts (Yin, 2018). Documenting this information enables another researcher to replicate the study by applying the same information to test for the validity and reliability of the study. A qualitative researcher achieves reliability by presenting detailed information on the methods they used to realize research constancy from other investigators (Rose & Johnson, 2020). To prove the reliability of this study, I used a qualitative multiple case study with semistructured interviews to collect data by following research protocols identified in (Appendix A) to establish data for the replicability and consistency of this study. A researcher can improve reliability by presenting similar questions to all the participants to demonstrate a study's precision and methodology (Rose & Johnson, 2020). I presented similar interviews questions to all participants for consistency for further reliability tests to enhance research quality.

Dependability

Evaluating the quality of the research method through dependability refers to the degree to which a researcher can repeat a study using comparable methods (Stenfors et al., 2020). For a study to achieve dependability, a qualitative researcher must explain the design, documents, coding, and analysis to ensure other scholars can recreate the study (Constantinou et al., 2017; McGinley et al., 2021). Korstjens and Moser (2018) noted that an audit trail is an approach to confirm dependability and confirmability. l explored the study protocols describing the selected method, design, data gathering techniques, population, and sample size to enable other scholars with accurate information to replicate this study and obtain similar results or results that might be unique to the different participants they interviewed for their studies.

To ascertain this study's reliability, credibility, and dependability, I interviewed three participants and collected data using a recorded device with a similar approach, transcribed interview data, reviewed journal field notes and participant's flyer, and analyzed data with NVivo software. Motulsky (2021) pointed out that member checking is another strategy to ensure the validity of the research. I presented the interpreted data to participants for clarification on answers collected during the interview. The participants confirmed with feedback for the accuracy of response. I triangulated data using journal field notes, interviews, and participant's flyer to achieve reliability and dependability. Braun and Clarke (2021) identified data saturation as when no new information emerges in the data. I concluded with the sufficient data collection that helped me reach data saturation when no new information, codes and thematic analysis developed in the study. The information embedded in this research with three participants' interviews and other data sources following my research protocol provided sufficient data for the replicability of this study.

Validity

Academic research deals with rigorous procedures to ascertain the legitimacy of a study. Validity is part of the benchmarks to determine research plans inquiry and is categorized into a construct, internal, and external (Yin, 2018). Moon (2019) stated that triangulation is an essential method to apply in research to ascertain the evidence used in research to guarantee validity, reliability, and trustworthiness. Additionally, triangulation is a method of collecting information from additional source to improve rigor and data saturation (Moon, 2019). I confirmed validity through data triangulation using recorded interviews, notes, member checking, and reviewing the organizations existing information from their websites.

Credibility

Credibility entails the comprehensive explanation of the study procedures and the range in which the study represents reality (Constantinou et al., 2017). Liao and Hitchcock (2018) presented that credibility involves a systematic approach at every phase of research and following principles to achieve measures to necessitate credibility through examining statements, proposals, analysis, and writing findings. I obtained credibility by presenting various details of the study's component accuracy from collecting interview data to accurately reporting the participant's actual contributions.

Additional credibility techniques necessary in qualitative research are triangulation, member checking, data saturation, and audit trail. Daniel (2019) stated that a researcher could gain credibility by meticulously accounting for data analysis and confirmation of sources of data retrieved from participants. I improved credibility through member checking of data interpretation and by a review of participant transcripts for accuracy, triangulation of interview transcripts with organizational documents, journal field notes, and my interview protocol. Among the numerous types of triangulations, observer, theoretical, method, and data source (Ellis, 2019) identified, I used methodological triangulation, which includes collecting data with two or more sources involving similar methodologies. These methodologies encompassed using interviews and explanation of written data to produce complete and supported research output (Ellis, 2019). Daniel (2019) explained that member checking is vital to achieving credibility for a study through presenting the collected data to participants for confirmation. Data saturation means inferring credibility when no new information emerges signifying, I used sufficient and applicable data on various phases of research to respond to the research question (see Stenfors et al., 2020).

Transferability

Transferability signifies conveying the research findings to other circumstances or setting with other people (Constantinou et al., 2017; Lemon & Hayes, 2020; Lincoln & Guba, 1985). To illustrate transferability, a researcher must use purposive sampling to choose participants to obtain rich data worthy of transfer to others (Forero et al., 2018; Ospina et al., 2017). I improved research transferability of this study by conducting ethical research by offering a detailed interpretation of the participants' answers to interview questions. I also used a purposeful sample of three participants with a deeper knowledge of the phenomenon to demonstrate the transferability of this study by other researchers or readers. Dalkin et al. (2021) stated that NVivo is an important computed assisted program that supports transparency by categorically detailing and substantiating information creating an audit trail of the research steps. Merriam and Grenier (2019) identified that offering rich, thick description is a significant approach to ensure the generalization or transferability in qualitative research by individual researchers. I accurately followed the data collection process and analysis procedures using NVivo software, using orderly interview protocol, and was able to achieve data saturation to illustrate the validity and reliability of the research interpretation. I must explain the procedures of the study comprehensively through the research question and setting to allow other researchers to use this research as a reference in their studies. Even describing the research process will not guarantee that different researchers from various part of the country using the same method will achieve the same findings of the study.

Other researchers could then compare the similarities and differences in the findings from this study to their study because they used the same method.

Confirmability

Confirmability involves portraying the respondent’s experiences through data and thoughts rather than the researcher's beliefs (Constantinou et al., 2017; Korstjens & Moser, 2018). Ellis (2019) posits that quality research provides the trail of data compilation and interpretations. I must document an organized audit trail of the data analysis to allow research auditors to confirm and depend on this study by presenting the true interpretation of recorded interviews and other data used for this research. De Kleijn and Van Leeuwen (2018) suggested that the audit process gives a researcher a complete approach to leave a trail of selections and judgment established to allow another person to confirm the study. I used method triangulation, member checking to validate the information received from participants, probing questions for clarification during the interview, and a follow-up member checking interview when necessary to achieve confirmability. When presenting findings, avoiding bias is vital to confirmability to demonstrate research rigor.

Carcary (2020) explained that an audit trail comprises data and analysis of the collected information. Other researchers recognized that an audit trail involves various classifications: (a) raw data, (b) analysis notes, (c) coding notes, (d) research procedures and trustworthiness notes, and (e) individual reflexive notes (Carcary, 2020; Korstjens & Moser, 2018; Lincoln & Guba, 1985). Developing a detailed audit trail through field notes, themes, findings, and summaries enabled me to reach trustworthiness in this study.

Data Saturation

Achieving data saturation is paramount in qualitative research to exhaust relevant information on the concept. Hennink and Kaiser (2019) noted that saturation is a fundamental standard applied in a qualitative exploration to establish sufficient data to create a solid and acceptable understanding of the research facts. Data saturation gives research validity and is a part of the measures to evaluate qualitative research distinction (Hennink & Kaiser., 2019). Member checking by participants is another tactic to reach data saturation to ensure the confirmation and accuracy of the information collected.

Additionally, interviewing participants to collect data completed data saturation when no new information was needed. Alam (2020) added that data saturation means no new codes and findings resulting from data gathering and analysis. Saunders et al. (2019) maintained that data saturation enables researchers to attain data capability and expand the robustness of a qualitative case study. I reached data saturation in this research when there was no new information forthcoming from the three participants. Member checking was the primary method to ensure the participant understood the questions and that I understood their answers.

Transition and Summary

In section 2, I presented the synopsis of the design of qualitative multiple case studies to explore strategies private health insurance managers use to increase health literacy on medical utilization to reduce healthcare costs. The proceeding explanations involved the data collection instrument, techniques, organization, analysis, reliability, and validity of the study. Additionally, Section 2 involved the aim of the study, the purpose statement, the explanation, and experiences relating to the role of the researcher, the participant's method of selection, the justification of research method and design, population and sampling, plus ethical research protocol. Section 3 encompassed the introduction, the presentation of the findings, application for professional practice, the implication for social change, the recommendation for action and future research, reflection, and conclusion.

Section 3: Application to Professional Practice and Implications for Change

In this section, I presented the multiple-case study research findings, explained the application of my study to professional practice, discussed the implication for social change, the recommendations for actions, and the explanation of potential areas for further research. Furthermore, I included my reflection on the research process and experiences and finally the research study.

Introduction

This qualitative multiple case study aimed to explore private health insurance managers strategies to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. I used methodological triangulation involving, semistructured interviews, my field journal notes, and the participant flyer encompassing the health literacy program for the study. I presented eight semistructured interview open-ended questions to three participants through Zoom videoconferencing. The individual participants received an invitation letter and a consent form to participate in the study before the interview. Each participant agreed by signing to participate and permit the recording of the discussions. I replaced the participants’ identities with P1, P2, and P3 codes to ensure confidentiality.

The semistructured interviews lasted for less than 45 minutes for each participant. I transcribed the recorded interviews, read through the data, and emailed my interpretation for follow-up member-checking after a few days of conducting the interviews. The participants responded with positive confirmation. Motulsky (2021) identified that members of academic reviews deemed member checking relevant in addressing threats to validity in research. I ensured each participant received my interpretation of their answer for member checking. I imported the interview transcripts to NVivo software to code, analyze, and create themes from the data collected from participants. I examined data from the study using NVivo 12 to identify major emergent themes. The four major themes that emerged from the data were (a) patient case management engagement to achieve compliance, (b) continuous patient health education, (c) health service utilization review, and (d) providers-patients collaboration.

Presentation of the Findings

The research question for the study was: What strategies do private health insurance managers use to increase patients' health literacy on medical utilization to reduce healthcare expenses. I selected the HBM and Andersen HSU model as the conceptual framework for my guide for this study. I conducted an exploratory study using a qualitative multiple-case study to address my research question by gathering data from three private health insurance agency managers. Using purposive sampling enabled me to sample three participants with the knowledge and expertise important for the study. The examination of interview data facilitated me in forming four core themes: (a) patient case management engagement to achieve compliance, (b) continuous patient health education, (c) health service utilization review, and (d) providers-patient collaboration.

Theme 1: Patient Case Management Engagement to Achieve Compliance

Participants expressed that patient interaction through case management is vital to reaching each patient one-on-one to identify their health concerns and how to mitigate further health problems. The intervention of health insurance case managers ensures that a patient gets an explanation of all the health benefits and resources available to them and various ways patients can save money for the insurance company to reduce health care costs. P1 and P2 emphasized the importance of the patient's case management team and pointed out various strategies connected to patient case management engagement to achieve compliance. Participants identified several strategies for case management: Targeted communication and patient follow-up. P1 stated:

> I think it's very important for any organization to have a case management program because that one-on-one contact with the patient will give those members the assurance that they have someone out there from their insurance, that is able, or that they can just call and ask any medical questions.

P1 explained that his team interviews patient to understand the level of health literacy and barriers to receiving health services to explain their specific disease condition, symptoms, and how to manage the disease at home to mitigate future expenses. P1 expressed the importance of one-on-one interaction with their health insurance member to understand the holistic problem to better direct adequate health service utilization and reduce healthcare costs. P1 stated:

> The patient needs to be compliant, and if they are compliant. They fully understand their illness and their treatments, their medication, it actually prevented those members ending up in the hospital, which is, you know, hospitalization is very expensive for those members, and for the insurance as well, because every time you end up in the hospital, you have co-pays.

P2 explained, “ultimately, a patient is going to have a disease, and it's going to progress unless they're super compliant, 100% compliant.” P1 and P2 emphasized the significance of patient compliance in healthcare to achieve adequate medical utilization to reduce healthcare costs. P3 expressed the benefit of targeted communication to address individuals’ overall health concerns and barriers. P3 stated, “we have to serve not only medically, but a whole person model, which is also their mental health.” P3 elaborated that her team incorporated questions exceeding medical problems such as, are you in danger or harm, do you experience domestic violence, depression, or suicide to better educate members. P1 and P2 expressed the need for member follow-up for services and its effectiveness for the continuation of progress in healthcare utilization to mitigate frequent unnecessary ER visits and hospitalization. P1stated, “When my team receives those referrals, what we do is we contact the patient, we make our research, read the medical records from the hospital and find out exactly what happened.” P1 continued:

> What's going on, what kind of testing do they have, and what type of follow-up they have to do, now that they are out of the hospital? And we also checked on the clinic side, where on the outpatient side, were prior to being admitted to the hospital, what kind of follow-up the patient had? Were they compliant with their primary care doctors, follow up, or with their medications?

Multiple scholars have confirmed the efficiency of health literacy programs in various organizations in addressing healthcare utilization and the importance of reducing healthcare costs.

P1 explained the impact of the implementation of Care for Me Program to assist and support members with health education. P1 shared that there is a significant result for members who participated in the health literacy program after 6 weeks of completing the program. This finding corresponded with the existing and current literature validating the impact of health literacy program interventions on mitigating disease

Findings Related to the Conceptual Framework and Literature

The conceptual frameworks for this study were HBM, dealing with behavioral change, and HSU, which supports healthcare needs, predisposing factors, and access. These two models were crucial for managers in understanding why individuals refuse to obtain healthcare services and why some individuals do not have access to healthcare. The frameworks were relevant to patient case management engagement to achieve compliance in the intervention process to motivate behavioral change. This finding aligns with the HBM and HSU models of health behavior and health service access. Furthermore, managers serve as an intervention agent to motivate patients’ self-efficacy that predicts cues to action with the understanding of disease susceptibility and severity of illness while removing perceived barriers to treatment.

Additionally, patient-case manager engagement that promotes health behavior compliance aligns with the justification to partake in health services utilization. The various HBM constructs tied into this study finding on assessing an individual’s health belief as a predictor of healthcare use. The result of this study also supports the current research on healthcare managers’ engagement effort to achieve compliance, corresponding with Reinhart et al. (2022) study on the importance of amplified engagement during the COVID-19 pandemic using numerous modalities to achieve patient compliance to reduce hospital- acquired conditions. As a result, the finding identified that healthcare managers must commit to engagement with patients as a strategy to increase health service compliance to mitigate health conditions to reduce health expenses.

Theme 2: Continuous Patient Health Education

P1 mentioned that her team implemented Care for Me Program to educate patients on their health conditions to address health education and wellness. Patients are at various levels of education and health literacy. Participants were health insurance case managers who helped educate members on their specific illness and home healthcare services and explained the differences between urgent care and emergency department visits. P1 said:

> We have this program called H. E. W, which is a health education and wellness program, and what they do is they have certified diabetic counselors that do diabetic teaching or diet modification, so it's a 6-week program that the patient can either do telephonic or they can also go to the clinic setting where they attend classes.

P1 commended the effect of the specific disease diabetic program on behavioral health change in patients who participated. This finding agrees with Hu's et al. (2022) discoveries on the impact of patient-centered health education in encouraging and affecting behavioral change for participants in the study.

P1 continued:

> The purpose of the program is to make the patient understand the illness, like diabetes and the treatments that are for that particular illness and make sure that they also understand the medications that they're taking, including insulin, and also the diet.

P2 explained that they have a continuous house call program through a nurse, social worker, or case manager to support patients' needs. P3 expressed that education involving the whole person's care model, which encompasses health, education, and wellness is an important approach her team uses in achieving health literacy. P3 continued, "we ensure that our members are aware of their health condition, if they are diabetic, they need to have an endocrine appointment and optometry appointment and hemoglobin, an A1C test every year through sending out flyers to educate patients." P3 justified that they are regulated by the National Committee for Quality Assurance (NCQA) to meet the various benchmark. One of the benchmarks was to use fifth-grade level English to ensure that patients understood the content of the information.

The overall goal for continuing education through case management is to educate patients on the most cost-effective ways of caring for themselves to benefit both patients and the insurance companies**.** P1 explained the impact of implementing of the Care for me Program to assist and support members with health education. P1 reiterated that there was significant progress for members who participated in the health literacy program after 6-week of completing the program corresponded with Hu et al. (2022) literature findings validating the impact of health literacy program interventions on mitigating diseases and improving the quality of life. Martos-Cabrera et al. (2021) and other scholars have confirmed the efficiency of rigorous health education interventions in various studies collaborating with the P1, P2, and P3 findings.

Findings Related to the Conceptual Framework and Literature

According to literature on HBM, continuous health education produced positive medical outcomes for women of child-bearing age battling cancer (Chalambari et al., 2022). The findings from theme 2 corroborated with Chalambari's et al. (2022) recent literature findings on the impact of HBM constructs on disease intervention like breast cancer before and after health literacy intervention. Hu et al. (2022) confirmed the significance of the HBM in a nursing intervention program related to patients with end-stage renal disease improving medication intake and long-term management. The impact of patient's continuous health education was observed in the fight against the COVID-19 pandemic. Although the process was challenging at first, the effect of regular hygiene protocols and later vaccination drastically slowed the death rate, confirming health education impact.

The finding from theme 2 paralleled with HSU in indicating the consideration leading to health services use. Healthcare managers aid in understanding the enabling, predisposing, and need capabilities of a patient. In the case of health insurance, the predisposing concern is having access to health insurance and support to obtain health services. P2 mentioned that patients might have access to health insurance but unable to understand the benefits linked to service. Hajek et al. (2021) confirmed that predisposing, enabling, and need factors were the determinants of HSU in the homeless population.

Theme 3: Health Service Utilization Review

Utilization review allows health care providers and patients to understand their health service utilization rate and services economically necessary for patients. P1 and P2 identified that utilization review enables them to measure the impact of the health literacy program and identify patients with extremely high utilization rates. Participants shared that utilization review also measures readmission rate and emergency room utilization to identify those patients in the group of high utilization to focus on helping them reduce high utilization and costs. P2 mentioned that his team measured patient utilization rate with the length of hospital stay, acuity of admission, comorbidity, and emergency visits (LACE) score. Another measure is running of monthly numbers on health service utilization and readmissions to prioritize care based on the score. P2 added that the higher the LACE score, the more attention the team gives to the patient.

P1 highlighted the impact of the health literacy program before and after participation to determine the effectiveness of the program. P1 stated that patients who frequent the ER had reduced visits after completing the six weeks Care for Me Program and did not visit the ER in three months. P3 expressed that the case managers in the quality department would conduct an annual data review on the number of screenings to determine an increase or decrease in participation. P3 shared:

> We educate them on how to do the different utilization reviews kind of a thing. We explain to them how each and every service that we offer from the health plan is there to help benefit them in whatever way.”

P3 continued, “The other thing we do is online member evidence of coverage or evidence of benefits.” Participants explained that a utilization review is necessary to access proper care for a patient.

Findings Related to the Conceptual Framework and Literature

Conducting a health service utilization review is essential to comprehending patients’ utilization rate. The finding tied into the second conceptual framework of this study, the Andersen health service use. The factors of this framework, the enabling, predisposing, and needs, were essential to understanding patients’ possibilities for healthcare access and use. The participants mentioned that a patients utilization rate is determined through monitoring the emergency department and hospitalization use. Patients with abnormal healthcare use were given priority in mitigating factors contributing to the problem. Participants shared that conducting a utilization review was a vital strategy to increase health education with disease-specific literacy.

As the world faced the challenges of the COVID-19 pandemic, the disruption of the necessary health service was evident in more than 100 countries (WHO, 2020). Saso et al. (2020) and WHO. (2020) found that health service utilization disruption differed according to country; developed countries encountered outpatient slowdown and vaccination concerns during COVID-19. Saso and WHO identified that developing countries suffered from the health service use gap, low supplies of workers, and medical necessities. This literature showed the disparities in health service use among countries, which also exist in individuals’ health beliefs. Further unforeseeable disruptions could threaten the healthcare delivery system without adequate supply of healthcare workers and equipment. Participants mentioned that service utilization review was a significant strategy to support health utilization and reduce healthcare costs.

Theme 4: Providers-Patients Collaboration

The participants explicitly shared that multiple teams are involved in achieving effective continuous health education for private insurance members to reduce costs. The group includes, patients, physicians, case managers, nurse practitioners, social workers, and others. P1 and P3 explained that working as a team has helped case managers communicate with members to identify various barriers patients face in obtaining healthcare screening and follow-up. Targeted communication and patient follow-up services were the strategies participants used to accomplish provider-patient collaboration. P3 added that a team of providers collaborated in providing different services to ensure patients received quality care through follow-up and asking specific questions related to preventative care. P3 mentioned:

> We introduce the screening. A lot of it is pre-screenings because, you know, preventative care is better than reactive care. So, when you have preventative care, like screening for whole, and capture at a certain age, or screening for breast cancer, asking women to get mammograms done at a certain age, and sending out the flyers and getting the primary care physicians (PCP), case managers, and everybody on board to educate them, hey? Have you had this done yet, because this is like not a requirement, but a recommendation to make sure that you know you don't get cancer? It helps to save costs, because if we can get care early on, it doesn't cost us much later down the road.

Effective interactions between the healthcare professionals and the patients are vital in achieving paramount health for the population. P1 suggested that the need for electronic medical records to avoid the duplication of services is crucial in the collaboration of health information providing authorized access to medical records. P1 cited an incident where a patient completed a laboratory service and the physician unknowingly asked the patient to complete the same test; with P1's intervention, the patient obtained his medical record and avoided the costs associated with a new test. P2 stated that a team of interpreters for various languages, nurses, and nurse practitioner's coordinate with patients to educate and coordinate health service appointments. P2 added that this team is available around the clock to address any medical concern and assist patients in assessing their condition to decide to treat at home, go to the emergency department, or urgent care.

Findings Related to the Conceptual Framework and Literature

The health belief model (HBM) and the Andersen health service utilization (HSU) models were the conceptual framework for this study which identifies the relationships between health behavioral change and individual's actions that justifies and envisages attitudes concerning health service use. The HBM, as a social psychological health behavioral change standard, its relevance in the behavioral health research, particularly in this study, enabled understanding related to health service use and belief. Providers-Patients HSU model in understanding an individual behavioral, predisposing, enabling, and need factors. Participant 1 identified that holistic attention to behavioral health is crucial to determining an individual’s health belief and perceived barriers to health service use.

Understanding the HBM and HSU might facilitate health insurance managers’ knowledge in creating interventions to increase health service utilization through health literacy. During the process of data examination, I identified themes and strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. I found relevant emerging themes from the study data which tie to HBM and HSU, (a) Patient case management engagement to achieve compliance, (b) Continuous patient health education (c) Health service utilization review, which ties into the Andersen health service utilization model and (d) provider-patient collaboration. The Andersen health service utilization is significant in identifying patient’s or member’s needs and barriers to accessing healthcare services.

Table 2

Summary of Themes to Increase Utilization to Reduce Healthcare Costs

Themes	P1	P2	P3
Patient case management	100%	100%	100%
Continuous patient health education	100%	100%	100%
Health service utilization review	100%	100%	100%
Provider-patient collaboration	100%	100%	100%

Applications to Professional Practice

After exploring the strategies private health insurance organizations use to increase patient health literacy on medical utilization, four themes emerged. The findings from this study revealed that patient case management engagement to achieve compliance, continuous patient health education, health service utilization review, and providers-patient collaboration were significant in increasing patient health literacy. The participants mentioned that engaging in such strategies as targeted communication, patient follow-up services, team collaboration, and identifying barriers were important in mitigating healthcare costs. Although the study was specific to Las Vegas, Nevada, the findings might be relevant to other areas. The results will enhance the professional practice of business because private, and public health insurance companies bear the financial responsibilities of healthcare members. Understanding strategies to increase health literacy on medical utilization to reduce healthcare costs will benefit health insurance practitioners in the area of preventing disease progression through early dictation to increase profitability.

Implications for Social Change

The implication for social change involves awareness of adequate health literacy strategies to increase medical utilization to reduce healthcare costs. The result from this study is crucial in understanding how to educate patients through various collaborative programs to increase annual screenings to identify diseases early, manage specific conditions, and reduce healthcare expenses. The increasing healthcare costs in the United States have impacted a significant portion of the population financially, especially persons with comorbidity. Seeking early health intervention using the findings from this study may mitigate late diagnosis leading to death. The result of this study might potentially promote social change in health literacy education for organizations and improve individuals' knowledge on managing and initiating health screening, thereby reducing costs by avoiding expensive fees related to chronic diseases. This finding holds the potential for social change to enhance communities' health literacy awareness and enrich institutional database for students and researchers. This finding might also trigger a social change through government policymakers in understanding the significance of health literacy to increase medical utilization to reduce healthcare costs.

Recommendations for Action

Several recommendations developed from my findings and academic literature. These recommendations are imperative for health insurance managers and other healthcare professionals responsible for managing patients' health and increasing medical utilization to reduce healthcare costs. The findings of this study involve four themes (a) patient case management engagement to achieve compliance, (b) continuous patient health education, (c) health service utilization review, and (d) providers-patient collaboration. The following are the recommendations for health insurance managers and healthcare professionals to consider: First, managers must understand the level of health literacy for individuals prior to program implementation. Second, accessing patients' understanding of HBM entails health behavior, and HSU predicts one's need, predisposing influences, and enabling elements to receive healthcare services. Third, the study findings were essential to demonstrate the effect of health literacy education on improving of health. Therefore, I recommend that managers and other professional medical staff continue to enhance their education on health literacy to better support patients with low health literacy.

After the publication of this study on ProQuest, I can disseminate the findings to health insurance managers in Nevada seeking health literacy strategies to increase medical utilization to reduce healthcare costs. The result of this study might be useful in health education intervention conferences for healthcare professionals and institutions. Publication in the health sciences and business management journals will also be necessary to disseminate the study findings.

Recommendations for Further Research

The purpose of this qualitative, multiple case study is to explore the strategies private health insurance managers use to increase patients' health literacy on medical utilization to reduce healthcare expenses. Emulating the strategies emergent from this study might be essential in creating more awareness for adequate utilization of medical resources, which would benefit the population and lessen the rising healthcare costs for individuals and the country. The study results are informative but further research is vital to improve health literacy knowledge and identify how to incorporate the emerging health technologies devices to alert individuals to conduct health screenings. The limitations and recommendations for this study are part of my personal experiences completing this research.

There are two limitations to this study. The first limitation is the challenge of recruiting participants and collecting answers not related to the question. To address this limitation, I used probing questions to obtain more detail in receiving responses directed to the questions. The second limitation was the sample size of three participants may not be sufficient to identify strategies other organizations use. I received enough information from the three interviews to reach data saturation and the triangulation of other sources using field notes and participant's public information. The recommendation for further research is for other researchers to repeat this study using the quantitative or mixed method to include a larger sample size from a national health database to understand different strategies. A second recommendation is to extend this research to other geographical areas outside Nevada to yield similar or dissimilar results adding to more approaches to increase health literacy on medical utilization to reduce healthcare costs.

The final recommendation is to encourage more research on why many health literate persons (i.e., nurses and doctors who would be considered highly health literate) refused to get their Covid shots as a preventative measure. The healthcare providers should know better than persons who have taken the advice but may just be considered average in their health literacy knowledge. This situation is puzzling and contradictory because health literacy is vital in improving healthcare outcomes in the United States and other countries worldwide. There is a lot more that we need to learn that is still a mystery to people who ask these questions.

Reflections

My experience within the Doctor of Business Administration (DBA) program process was a mixture of challenges, advancement of knowledge, and academic progression. Through this process of exploring strategies private health insurance companies use to increase patient health literacy on medical utilization to reduce healthcare costs, I learned that bias is inevitable, Still, I stayed neutral, objective, and focused on the interview protocol for data collection and analysis of the factual information as collected. The absence of a traditional face-to-face interview that I anticipated brought the challenges of not identifying the participants' body language concerning the questions. In this study, there is the absence of personal interaction from in data gathering process, although it was convenient and low cost. I triangulated the interview data, field notes, and member-checking to avoid researcher bias.

The potential effect of the research on participants is the reward of contributing to this study. P1 and P2 stated that they were glad to contribute to this study. The participants contributed valuable insight to identifying effective strategies to increase patient health literacy on medical utilization to reduce healthcare costs. The most significant participants collective contribution to this study was the importance of continuous health literacy education and team case management. The contribution might aid healthcare professionals in providing adequate health education on medical utilization to prevent the advancement of diseases and to achieve cost reduction. After completing this research study, the experience of a DBA journey has changed my perspective on the requirements to obtain a doctoral degree in time and commitment. The entire understanding of my doctoral study journey has advanced my research knowledge in conducting semi-structured interview.

Conclusion

Several studies identified low health literacy as one of the significant reasons for insufficient access to health-related services. Some individuals with inadequate health literacy are prone to not engage in health-related information due to low self-efficacy in understanding the information to make health decisions. The World Health Organization has recognized a global need to increase the rate of patients’ health literacy. Studies have found that a patient’s psychological readiness, autonomous health commitment, and provider's encouragement determine the level of health literacy (Graffigna et al., 2016). Low healthcare literacy does not explain all of the reasons why some medical professionals and other persons have refused to seek treatments to prevent the spread of infectious diseases like COVID-19.

Some private health insurance managers lack strategies to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. The purpose of this qualitative, multiple case study was to explore the strategies private health insurance managers use to increase patients' healthcare literacy on medical utilization to reduce healthcare expenses. The critical theme in this study is that health literacy involves multiple teams and case managers to continuously educate the population on healthcare concerns to achieve preventive care and longevity, leading to a better quality of life and increased productivity and profitability for healthcare organizations and individuals. The results from this study indicated the importance of implementing effective strategies to increase healthcare literacy. The findings could also aid healthcare managers and other business owners in understanding the need to implement health literacy programs within organizations. The key recommendation for private health insurance managers is to work collaboratively to meet patient health literacy needs to reduce costs. By working together, success can be achieved with those persons who are open to suggestions and encouragement from their healthcare professionals.

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Appendix A: Interview Protocol

Research Study Title: Healthcare literacy strategies to mitigate healthcare utilization and rising costs.

Here are some sample questions:

1. What strategies does your organization apply to help patients understand how healthcare literacy is a part of their health benefit to mitigate unnecessary expenses?
2. How do your organization staff members communicate health literacy strategies on utilization to your patients to reduce healthcare costs?
3. What derivative programs have your organization implemented to improve health literacy?
4. Based on your organization's patients' experiences of providing health insurance, what are the realized benefits of consumer's health literacy strategies on cost reduction?
5. What are the strategies your organization implemented to help increase patient literacy to understand adequate medical utilization of healthcare to reduce healthcare costs?
6. What are your organization's challenges in addressing healthcare medical utilization to reduce healthcare expenses?
7. What measures have your company implemented to quantify the effectiveness of consumers' healthcare utilization literacy strategies?
8. What else can you add that will help me understand your organization's strategies to increase patient's health literacy on medical utilization to lower healthcare costs?

Interview Procedures

- Contact participant prior to meeting to check for questions, reconfirm time and location.
- In observing the COVID-19 protocols, I will conduct a zoom, telephone, or face-to-face interview to adhere to social distancing.
- The interview duration will be 45 to 50 minutes at the location and time convenient for the participant.
- I will present eight interview questions and follow up with some probing questions as needed.
- With your permission, I will record the interview using a Smartpen and other devices.
- The purpose of recording is to listen for write-up and transcription of the findings later.
- The recorded data will aid in transcribing the interview I will present to you after 3 days to confirm the accuracy of your words.
- You will receive a copy of the interview transcript for member checking and approval.
- Thank you for willingly sharing your experience with me.
- I will schedule follow-up member checking interview after few days to firm interview transcript.

Appendix B: Research Invitation Email

[Date]
Subject: Invitation to Participate in a Doctoral Study
Dear [Recipient],

My name is Stella Maduka, a Doctor of Business Administration (DBA) student at Walden University, researching strategies health insurance managers use to increase health literacy on medical utilization to reduce healthcare expenses. Due to the rising healthcare costs in the United States, countless studies have presented many determinants of health, mentioning health literacy as one of the factors to obtain good health. As a healthcare management specialization student, I am addressing health literacy plans to improve adequate health service utilization. As part of my program's mandatory prerequisites, the university requires research study as part of the steps to obtain my doctoral study.

I invite you to participate in a voluntary research study on identifying healthcare literacy strategies to mitigate healthcare utilization and rising costs. As an expert in your field, I am inviting 3 managers who have applied strategies to increase adequate healthcare utilization to reduce costs. I will conduct a face-to-face or Zoom interview that may take 45-60 minutes of your time on a date and time convivence for you. The interview involves a 25–30-minutes follow-up member-checking after 3 days to confirm the information collected from you. You are free to withdraw from the interview at any moment without answering any questions. If you have any questions or are interested in participating, please do not hesitate to contact me through email or telephone.

Thank you in anticipation

Sincerely,

Stella O. Maduka, B.Sc., MBA

Walden University Doctorate (DBA) Student

Tel: 1 (702) 401 2018