

**SHOW ME THE VALUE: EXPLORING PREVENTIVE HEALTH SERVICE USE AMONG
EMERGING ADULTS**

A Dissertation by

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DEDICATION

To my husband thank you for the sacrifices you made in order for me to achieve my goals. I know this has been a long four years but we are crossing the finish line together.

To my children, I want you to know that you determine your path and there is nothing you can't achieve with determination, patience and support.

To my family and friends, you are all awesome and I couldn't have made this journey without you. I am so proud and humbled to have each of you in my life.

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ABSTRACT

Emerging adults exhibit characteristics dissimilar to other culturally constructed age groups such as adolescents and older adults. Access to healthcare amongst emerging adults has improved, as a result of the Affordable Care Act (ACA), yet the translation of this access to preventive health services use has only seen modest changes in the U.S. and in Kansas. Post ACA, preventive health service (PHS) use such as routine health checkups are still only slightly higher than 50% for this population (Han, Yabroff, and Robbins, 2014) . Understanding how to increase emergent adults preventive health service use, has implications for the early detection and prevention of chronic diseases, the leading cause of death in the United States.

This project used a grounded theory approach to see if a substantive theory emerged relative to factors that influence preventive health service use among emerging adults. Twenty one emerging adults were interviewed. Results identified eight themes centered within the constructs of causal conditions, context, strategies and consequence that influence emergent adult decision framing around preventive health service use. Results were validated through the process of member checking and testing the theory with persons outside of the sample population.

The findings indicate that when coupled with the demands associated with the transition to adulthood, emerging adults frame preventive health service use as a loss with minimal return on investment. This results in non-use of such services. In order to increase use among this population, health care providers need to employ minimally invasive ways to offer preventive health services and greater incentives need to be attached to preventive health service use.

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CHAPTER 1

INTRODUCTION

Health behavior can be defined as any activity a person participates in to maintain or improve their current or future health status (Definition of Wellness), thus health behavior can include the utilization of health services for the prevention of chronic disease. Chronic disease is the leading cause of death in the United States according to Healthy People 2020. Eighty-six percent of health care dollars are spent on chronic diseases such as heart disease, stroke, cancer, diabetes and arthritis (National Center for Chronic Disease Prevention, 2015). Many preventable deaths in the U.S. are due to negative health behaviors such as tobacco use, (Lawrence, Gootman & Sim, 2009). The behaviors that lead to chronic disease are modifiable, such as tobacco use and excessive alcohol use (binge drinking), and indicators for chronic disease can be identified through the utilization of clinical preventive health services such as blood pressure screenings. These screenings are commonly provided through routine checkups with a medical provider. Yet studies have shown that 56% of young adults have never had their blood pressure checked (Eaton, et al., 2007), a common screening for the identification of heart disease or stroke. On average, one in six adults in the U.S. binge drinks approximately four times per month (CDC, 2012a). In 2012, Kansas adolescent and young adult males were higher than the national average with regards to binge drinking rates (NAHIC, 2012)

Poor eating and physical inactivity have also contributed to preventable chronic disease amongst half of all American adults (U.S Department of Health and Human Services, 2015). However, in spite of the knowledge around what influences chronic disease and health policies to improve health services and utilization, there appears to be limited use of preventive health services such as annual checkups and flu shots by the emerging adult population, persons age 18-

25 throughout the U.S. and in Kansas. Through the receipt of clinical preventive health services diseases such as these can be detected early and or prevented.

Anderson's Behavioral Model of Health Service Utilization is an established framework of factors intended to predict and influence health service utilization and outcomes (Anderson & Newman, 2005; Anderson, 1995). Key factors of influence on health service use within the model include predisposing, enabling and need factors. The model originally tested on families, has gone through several iterations and was expanded to include health outcomes in 1995 (Anderson, 1995). Access to health care, including insurance coverage, is often considered an enabling factor while characteristics such as social and cultural factors are predisposing. Access to health care has also been shown to increase utilization of health services (Anderson, Dobkin, & Gross, 2010) and utilizations of health services leads to certain health outcomes. For example, use of preventive health services, primarily obtained through a primary care provider, helps to identify illness early, helps members of the population to be healthier and reduces costs for individuals and communities. A 2013 national survey of the Kaiser Foundation found that most uninsured adults had no connection to the health care system. Forty one percent had not had any health care visits in the last year and only 51% reported having a usual place to go to seek health services or advice.

Emerging adults, exhibit characteristics dissimilar to other culturally constructed age groups such as adolescents and older adults. While the existing frameworks of health service utilization take into account predisposing factors such as race, age and socioeconomic status and enabling factors such as insurance coverage (Aday and Anderson, 1974) which are applicable to all populations, it does not consider the unique characteristics of emerging adults such as self-identity, their experimental nature, limited possible selves in the health domain and limited

cognitive processing in relation to the contributing factors of health service use. Furthermore the framework does not focus on preventive health service, but on health service driven by illness needs (Arnett, 2000).

Access to healthcare amongst emerging adults has improved, as a result of the Affordable Care Act, yet the translation of this access to preventive health services use has only seen modest changes in the U.S. and in Kansas. The ACA has reduced the number of uninsured emerging adults by approximately 10% in the U.S. (Akosa, , Moriya & Simon, 2013), however post ACA, preventive health service use such as routine health checkups are still only slightly higher than 50% for this population (Han, Yabroff, and Robbins, 2014) . In Kansas, 22.9% of the uninsured were young adults age 19-25 according to 2013 American Community Survey. Historically this group has comprised half of the uninsured in Kansas. The percentage of emerging adults without insurance coverage in Kansas is trending downward according to 2012-2013 data (KDHE, 2016) however the percentage utilizing services indicative of preventive health i.e., having received a routine checkup (60%) or flu shot in the past 12 months (75%) has remained stable.

Population health, although a relatively new term, is concerned with “the health outcomes of a group of individuals, including the distribution of such outcomes within the group” (Kindig & Stoddart, 2003). Prior research suggests the need for ecological approaches to improving health and health service utilization with the ultimate goals of improving health outcomes (Aday & Anderson, 1974; Anderson, 1995). It is within the framework to improve population health that recent policies such as the Affordable Care Act, have sought to impact the young adults populations access and use of clinical preventive health services (Koh & Sebelius, 2010; Rosenbaum, 2001). Given the characteristics and behaviors of emerging adults as a unique population and the historical application of Anderson’s Behavioral Model of Health Service

Utilization, few studies if any have sought to identify qualitatively what factors contribute to emerging adult preventive health service use and whether the current model of health service utilization is applicable for preventive health service use among emerging adults. This project used a grounded theory approach to see if a substantive theory emerged relative to factors that influence preventive health service use among emerging adults.

Chapter II

LITERATURE REVIEW

Clinical preventive health services. According to the Centers for Disease Control, clinical preventive health services aide in preventing diseases and detecting them early when treatments can be more effective. If everyone received clinical preventive health services 100,000 lives could be saved each year. The U.S. Preventive Services Task Force (USPSTF, 2016) recommends a set of clinical preventive services based on age and gender. Healthcare.gov identifies clinical preventive services within three categories: adults, women, and children. These services include clinical interventions to reduce the risk for an adverse health condition, screening to identify and treat a condition early to reduce severity and duration and clinical interventions to reduce complications from a condition or recurrence of a condition.

Clinical preventive health service recommendations for adults span 13 clinical areas (Healthcare.gov). Among those areas the following are indicators for chronic disease.

- Screening for blood pressure
- Screening for tobacco use and alcohol abuse
- Screening for cholesterol
- Screening for HIV and other sexually transmitted diseases
- Screening for cervical cancer

The utilization of these services and others are impacted by access to health care. Increasing access to health care has been shown to increase utilization of screening services (Anderson, 1972), however the causal relationship between the two are uncertain For example most studies can't distinguish conclusive findings as to why healthcare utilization differs between the insured and uninsured (Anderson, Dobkin, & Gross, 2010).

Young adults. The transition from adolescence to adulthood is a sensitive period and one in which young adults are greatly impacted by their environments. This period of time includes

biological changes and the need to increase independence (Mulye, Park, Nelson, et al, 2009). Environmental and biological impacts are representative of predisposing factors of health service utilization (Anderson & Davidson, 1973). Healthy people 2020 defines young adults as persons age 20-24. This population is generally healthy; however, they are prone to engaging in high risk behaviors that later lead to chronic illness. For example they are more likely to engage in smoking and engage in binge drinking than adults 25 years and older (Albert & Steinberg, 2011).

Young adults' insurance status. Insurance is commonly viewed as an enabling factor for health service use (Anderson, 1972). It is an asset that facilitates access by reducing cost and other barriers to health services. It can be viewed as a ticket into the health care system. In the U.S. most of those who lack insurance are non-elderly adults and of this group over half are between the ages of 19-25. Many become uninsured at high school graduation or timing off of their parents insurance at age 19. Prior to the 2010 passage of the Affordable Care Act, 5-8% of teens became uninsured after their 19th birthday (Anderson et. al, 2010). The transition to uninsured status has also been associated with losing eligibility for public programs such as Medicaid and Children's Health Insurance Plans at age 19. Estimates for the number of uninsured young adults ages 19-26 in 2010 were at 6.6 million with a 2.7 million estimated to receive insurance through the health insurance exchanges as part of the Affordable Care Act (Collins, 2010).

According to 2013 American Community Survey, in 2012 about 356,000 people in Kansas lacked insurance. 22.9% of those were young adults age 19-25. Historically this group has comprised half of the uninsured in Kansas yet they make up only approximately 7% of the Kansas and Sedgwick County, KS population according to the 2010 Census (<http://www.census.gov>) contributing to access inequalities. These inequalities are being

addressed by the Affordable Care Act, by enhancing enabling factors for preventive health service utilization within the emerging adult population.

Emerging Adults. Rationale for limited studies on young adults preventive health service use may hinder on the adoption of young adults as a unique population. Complete consensus on defining individuals 18-26 years old as “Emerging Adults” has not occurred. For example, Healthy People 2020 identifies young adulthood as a period between 20 and 24 years. The use of the term young adulthood in and of itself also has inconsistent interpretations. References to “young adult books” are geared at pre-teens and “young adult” organizations exist for those under age 40. Emerging adulthood is a culturally constructed lifespan like adolescence (Arnett, 2000). It can be changed and is not universal, although similar aspects of emerging adulthood can also be found in countries such as China and South Africa (Arnett, 2007). Emerging adults exhibit demographic differences in living arrangements and perceive adulthood differently than other groups. Demographically it is difficult to predict the living arrangements of emerging adults, according to Arnett (2000) due to instability caused by college attendance, co-habitation, and income whereas 98% of children age 12-17 live at home. Perceptually, many do not believe they fit the description of adolescence or adult. As shown in Figure 1, majority do not see themselves as adults until in their late twenties and early thirties (Arnett, 2000). Instead of adopting long term adult roles this age group is more experimental (Arnett, 2007). Emerging adults may engage in various types of employment before settling on a career, they may prolong home purchases and other decisions that may associate with adulthood.

Subjective Conceptions of Adult Status in Response to the Question, Do You Feel That You Have Reached Adulthood?

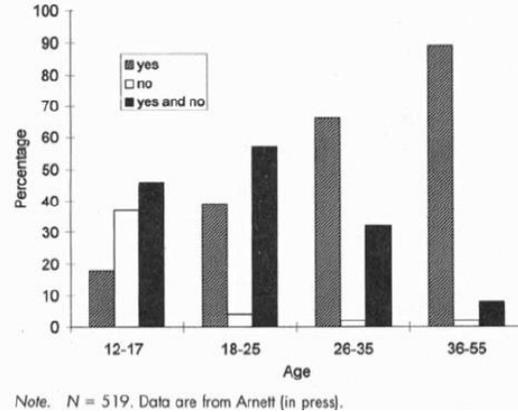


Figure 1. Conceptions of adult status (Arnett, 2000)

Emerging adults have identified three important factors that must be met to allow for classification of adulthood: accepting responsibility for oneself, making independent decisions, and financial independence (Arnett, 2007). Most individuals age 18-25 have not met these criteria. Emerging adulthood best characterizes this age period given the attributes of other culturally constructed time periods across the lifespan. As a cohort, emerging adults are beyond puberty and secondary school, are not legally defined as children or juveniles, and have more than likely moved out of their parents’ home as compared to adolescents. The transition to adulthood, typically lasts 7 years beginning at age 19 (Arnett, 2007).

When looking at the spectrum of adulthood, Arnett (2007) suggested that “young adult” be reserved for the timeframe between the 30’s and 40’s. It is by age 30 that most individuals in industrialized countries have settled into what are perceived as adult roles (stable work, long-term partnership, and parenthood). Given that the transition to adulthood, typically lasts 7 years beginning at age 19, accepting and referring to those 18-25 as emerging adults creates opportunities for examining a unique developmental period and its relationship to healthcare and preventive health care utilization. Emerging adult literature has not explored the association between health care utilization and where it connects to the perceived criteria of adulthood by

this group. Even in this examination, it is important to note that this population is not completely homogenous and different emerging adults will reach adulthood at different stages (Arnett, 2000). Arnett (2007) most widely supports the framework shown in Figure 2 in the consideration of the transitions of adulthood. Going forward, the term emerging adult will be used interchangeably with young adults to accommodate the research in the area of health service and preventive health service use among the population.



Figure 2. Phases of adulthood (Arnett 2007)

The Patient Protection and Affordable Care Act (ACA)

Political Roots. Understanding the political roots of the Affordable Care Act, allows for a deeper understanding of its provisions and impact on access to health services, particularly preventive health services. Passed by the Obama administration in 2010 (PPPA, 2010) health reform legislation was not a set of completely new initiatives. Principle components of the legislation; economic reform, compressive coverage, and government accountability, were informed by prior presidential attempts and ideals, specifically, those of Franklin Roosevelt, John F. Kennedy, Lyndon B. Johnson, Richard Nixon, Ronald Reagan, George W. Bush and Bill Clinton (Washington Post, 2010). Presidents Roosevelt, Clinton and Nixon emphasized the economic need for reform. Presidents Nixon and Clinton proposed comprehensive health reform and the idea of a mandate that required employers to cover health insurance (Blumenthal & Monroe, 2010). Presidents Kennedy, Johnson, Regan and W. Bush all supported an ideology of government responsibility, meaning that to some extent they felt government needed to offer health care provisions to citizens (Washington Post, 2010). However, their focus was primarily

on Medicare recipients. While the ACA addresses the Medicare population (Jacobs & Skocpol, 2012) it openly focuses on the emerging adult population. The tenants of the ACA created both systems and individual level influences for health service use.

Goals and Provisions. The Patient Protection and Affordable Care Act (ACA) was passed with four goals: (1) expanding access to health insurance and medical services (2) reign in unfair coverage practices of the private health insurance industry (3) increase revenues and modify programs to pay for health coverage, and (4) reduce the overall inflation rate for public and private health care spending (Jacobs & Skocpol, 2012). These goals are reflective of influences to health services at both the individual (goal 1) and systems level (goals 2-4). Expanding healthcare shifts the U.S. closer to universal health care coverage and requires accountability on the part of the federal government, individuals, and employers. Stated differently the aims of the act seek to provide more affordable health insurance coverage, create efficiencies and equity in the current system, reduce wasteful spending, and improve the availability and utilization of primary and preventive health services to improve the public's health (Rosenbaum, 2011).

With regard to the Emerging Adult population, provisions of the act extend the ability for children to stay on their parent's insurance plan until they are 26 years old, regardless of educational status (Rosenbaum, 2011), thus improving access to health services and the influence of predisposing factors such as age. As previously stated, many Emerging Adults previously transitioned off of their parents insurance due to age and/or educational status. Historically only older children in college could stay on parental plans past the age of 18. The Act also reduces cost barriers for Emerging Adults needing to provide coverage for themselves.

Health Insurance Exchanges. In order to facilitate access and availability of insurance, the ACA called for the creation of health insurance exchanges to ease insurance enrollment for all populations. Exchanges, created by states and the federal government, provide a convenient place to access health plans that fit ACA requirements. With regards to factors that influence health service use, exchanges are responsible for a number of provisions which include; selection of qualified health plans, providing information and enrollment assistance to the uninsured, coordinating enrollment with state Medicaid programs, calculating eligibility for incentives to cover care (also known as subsidies), and overseeing plans. Exchanges also provide information to the federal government (Protection, P. & Act, A.C., 2010). States were given four years to set up separate or joint exchanges for individuals or employers and also had the option to collectively establish exchanges with other states or refrain from establishing an exchange and use that of the federal government (Collins & Nicholson, 2010).

ACA and Health Outcomes. The ACA has 10 legislative titles, of which Title IV- Prevention of Chronic Diseases and Improving Public Health, seeks to promote disease prevention (Rosenbaum, 2011; Koh, & Sebelius, 2010). Only half of preventive health services recommended by the USPSTF are accessed by Americans. These services are ranked by levels A or B by the USPSTF (2016). Category a services are “strongly recommended” and category B are “recommended”. The Advisory Committee for Immunization Practices and the Health Resources and Service Administration recommend the remaining immunization, preventive health, and screening services (Koh, & Sebelius, 2010). The act extends these prevention efforts to plans external to those that can be acquired through health insurance exchanges. Public plans, such as Medicaid and Medicare, must also focus on disease prevention (Koh, 2010).

The ACA improves access by removing well documented barriers to preventive health services and primary care such as cost having been identified (Koh, & Sebelius, 2010). Co-pays, deductibles, and co-insurance have all been eliminated from preventive services (Davis, Abrams, & Stremikis, 2011). Each of these terms is associated with costs to be bore by the insured. In addition to minimizing costs for the enrollee, the act offers other incentives to increase primary and preventive care services including incentives for providers (Davis et al., 2011).

The Affordable Care Act hopes to mirror in some ways the improvements in preventive health service use seen through Massachusetts health care reform. The Massachusetts Healthcare reform has demonstrated an increase in preventive health service use since implementation of the reform. Literature looking at Massachusetts pre-reform period from 2002-2005 compared to its post reform period 2007-2010, demonstrated that having a regular primary care doctor and having a regular checkup up in the past year increased significantly post reform. Seventy four percent of the newly insured due to reform were able to connect with a primary care doctor compared to 45% of insured in other New England States without reform thus increasing the likelihood of preventive health service use in Massachusetts (Okoro, Dhingra, Coates, Zack, & Simoes, 2014). The Affordable Care Act is partially built on the premise that as an enabling factor, when access to a primary care doctor is improved, people are more likely to receive preventive health services (Abrams, Nuzum, Mika & Lawlor, 2010 as cited by Okoro).

Theoretical Applications

Health Service Utilization Model. The most common behavioral model to predict health service use was developed in the 1970's (Anderson& Newman, 2005). The model focused on health service use from the perspective of units of physician ambulatory care, hospital inpatient services and dental care visits (Anderson & Davidson, 1973). Anderson's model identifies that there are multiple influencers that lead to health service utilization. Utilization defined as "point

in health systems where patients' needs meet the professional system" (Babitsch, Gohl, D. von Lengerke, 2012). This definition and the elements that defined health service use align the model more with illness care instead of preventive care. Prior to Anderson's model individual characteristics were the focus of health service use; Anderson's model added the influence of societal factors (Anderson & Newman, 1973) on the individual. He posited that societal determinants influence the individual directly and through the health system. Based on these determinants and additional impacts on the individual; predisposing, enabling and illness factors, health service use is determined (Anderson & Newman, 1973). Figure 3, illustrates this framework.

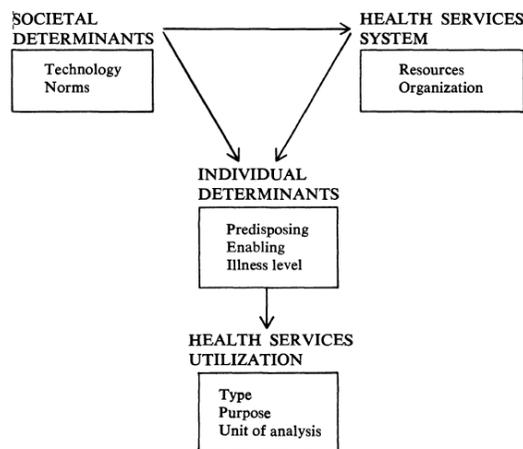


Figure 3. Framework for health service utilization

Societal Determinants. Societal determinants are represented by technology and norms in a community. Technology defined as “tools or techniques to bring about change towards a desired outcome.” (Taylor, 1971). When applied to the medical field, technology could be defined as "tools for extending the physician's powers of observation and making more effective his role as a therapist" (Warner, 1972 as cited by Anderson & Newman, 1973). For example, vaccinations against polio could be viewed as medical technology. Increased utilization and

acceptance of the vaccination has led to decreased mortality. A preventive health service, prior to polio vaccinations in 1916, 6,000 people died and 27,000 were paralyzed. Due to vaccinations, polio is no longer present in the U.S. (CDC, 2014).

Norms refer to what is acceptable by society. Within the health service utilization framework, norms could include shared values and beliefs between and individual and society or laws such as the ACA. Healthcare financing is one of the most common norms in the healthcare system. An example of changing norms, include the shift from home births to hospital births (Anderson & Newman, 1973). Most children today are born in hospital settings. In the 1900's almost all births in the United States occurred outside of the hospital, in 2012 this rate was 1.36% according to the National Center for Health Statistics. Increases in hospital births have been aided by technological changes such as improvements in hospital equipment (Anderson & Newman, 1973). Over the course of the past 40 years, technology and norms are believed to be the leading causes of gross increases in health service use. According to Anderson, it is unlikely that illness levels of individuals would lead to these increases (Anderson & Newman, 1973).

Healthcare System Determinants. Determinants of the healthcare system, which are influenced by societal determinants, include the subcomponents of resources, the labor and capital devoted to healthcare, and organization, what the system does with resources (Anderson & Newman, 1973). Resources can include clinic facilities, the labor force within those facilities, etc. Resources can further be broken down to make reference to distribution and volume. The geographic location and the quantity of resources influence health care use (Anderson & Newman, 1973). However, resources and volume take into account that all things within the health system are equal. As community psychologists we recognize that communities and systems are diverse, and equality is often difficult to achieve. This reality identifies a weakness

of the framework especially when considering a non-homogenous population such as emerging adults. Access and structure also play major roles in the organization of a community's health system. The receipt of medical care is determined by a patient's ability to access the medical system (Anderson & Newman, 1973). If preventive health care services are needed but a patient is unable to schedule an appointment with a local provider, access is hindered. This hindrance could be due to the inability to meet access requirements. Entrance or barriers to access are not the same in every system, but include how much a patient pays out of pocket and length of treatment. The ability to access a health care system improves as barriers are minimized. As costs for health service use are taken on by others, such as the federal government, or wait times for services decrease more people are able to gain access into the system (Anderson & Newman, 1973). Once entry is gained structure of the system comes into play determining what the patient experiences.

Structural determinants also include characteristics of the care a patient receives, referrals to other services within the system, and even personnel use (Anderson & Newman, 1973). But the relationships between access, resources and structure make it difficult to identify the degree to which structure relate to utilization. In other words, it is difficult to know if receiving excellent care influenced health service usage more than the ability to access the system. Anderson's model recognizes a level of influence from both aspects and goes further into the identification of factors at the individual level which play a large role in determining health service use.

Individual Determinants

Predisposing Factors. An individual's use of health services is colored by predisposing and enabling factors as well as their level of illness or necessity for care. Predisposing factors

relate to an individual's tendency to use service and their patterns of use are predictable based on pre-illness characteristics (Anderson & Newman, 1973). These characteristics are both biological and social in nature (Aday, & Anderson, 1974) representing a dichotomy of influences that can be mutable or immutable. Demographic factors such as age, sex, race, and ethnicity are immutable, yet they influence an individual's health service use. For instance, women tend to use outpatient services more than men (Babitsch et al., 2012) and dependent upon a given age group, patterns of usage will vary (Anderson & Newman, 1973). Additionally socio-structural elements and individual's attitudes and beliefs further influence usage. Social structures reference an individual's educational and household statuses as these characteristics influence an individual's lifestyle and choices (Anderson & Newman, 1973). For example, in reference to household status, mothers have historically taken on the caretaker role. This role extends to preventive health services, as mothers typically schedule and take children to appointments. Finally attitudes and beliefs of the individual or their family affect a person's inclination to use services (Anderson & Newman, 1973).

The Health Belief Model recognized the capacity that self-efficacy plays in determining health behavior, although the model was not specific to health service use (Rosenstock, Strecher, Becker, 1988). Rosenstock and colleagues (1988) drew reference to studies that confirmed people's non-compliance with medical advice or preventive health measures due to limited belief that they would contract a poor health condition or suffer consequences of a given condition that would seriously impede their lives. For example, many people don't receive flu vaccinations as a preventive health measure because they don't believe the flu shot is affective or feel that contracting the flu is only a temporary hindrance similar to the common cold. Individuals may feel that effort to avoid a poor health condition requires more resources than the anticipated gain

of the service, thus the Health Belief Model and its components should be examined when seeking to understand behavior (Rosenstock et al., 1988). Within Anderson's model beliefs are considered a predisposing characteristic of the individual and so is self-efficacy.

The development of self-efficacy is based on individual exposure to four experiences according to Bandura, and these are: (1) performance attainment, (2) vicarious experience, (3) verbal persuasion, and (4) physiological state. Of these experiences, performance attainment, based on achievement or mastery of a given behavior, exerts the most influence followed by vicarious experience, which refers to the observation of successful or unsuccessful behaviors (Rosenstock et al., 1988). While self-efficacy is a predisposing factor, when dealing with preventive health services, efficacy could be minimized amongst emerging adults because the outcomes of a given preventive health service may not be observed. Chronic diseases may take a long time to develop and screenings for blood pressure or other indicators of chronic disease may not demonstrate causal relationships. In lieu of that causal relationship, the perceived control by the emerging adult that their actions led to an outcome is diminished. In the development of self-efficacy, verbal persuasion is less influential in developing self-efficacy than either performance attainment or vicarious experience; however, it can lead to changes in a person's physiological state which in turn can impact self-efficacy. For example, Good anxiety improves self-efficacy while bad anxiety may lead to avoidance of a certain behavior thus confirming an individual's inability to carry out the behavior. A trajectory towards preventive health service use should recognize when the need to enhance self-efficacy exists. Attitudes and beliefs can be modified, but is not necessary when a task is easy to accomplish (Rosenstock, 1988). However, it is not easy to improve the structural and environmental issues that impact preventive health service use, thus self-efficacy needs to be explored amongst certain individuals or populations in

efforts to identify the extent in which they feel competent to carry out actions necessary for the receipt of preventive health services (Rosenstock, 1988). Anderson's model, while it considers self-efficacy as a predisposing factor, has not been applied to emerging adults as a unique population.

Enabling Factors. The second influence in Anderson's framework for health service use at the individual level are enabling factors, or those conditions that allow health service resources to be available to individuals. These conditions allow a person to satisfy a need regarding health service use (Anderson & Newman, 1973) using the "mean's available to them" (Aday & Anderson, 1974). Commonly measured by resources such as income, health insurance coverage, primary sources of care, and accessibility of the source (Anderson & Newman, 1973), enabling factors are often influenced by economics. Influence is modified by the income and wealth an individual has to pay for health services and the cost of healthcare, which is often determined by an individual's health insurance status or other cost-sharing arrangements. At the community level these attributes include factors such as the number of clinics and geographic location (urban vs. suburban) [Babitsch et al., 2012]. Amongst the enabling factors, income and health insurance coverage are those the ACA is attempting to modify as well as beliefs around preventive health services in order to affect access to care (Aday & Anderson, 1974).

Illness Level/Need. Health services are most readily accessed when there is an immediate need or perception of immediate need. This is often driven by the perception of illness. This perception takes into account symptoms of illness, perceived health status, and the degree to which a person believes a condition will interfere with their daily functioning. Clinical evaluation for a given condition can influence health care use (Anderson & Newman, 1973). Aday and Anderson (1974) also identify that perceived need or illness levels are impacted by

characteristics of the system and an individual's satisfaction with the system. If continued health service use is needed, these factors will influence the continued interaction with the system. The nature of preventive health service use does not depend on illness levels but the belief in the plausibility that one may experience a condition in the future.

The concept of Access. Anderson's model was updated in 1974 to include a framework for studying access to medical care. Access is typically measured by characteristics of a population, system utilization, and satisfaction (Aday & Anderson, 1974). Exploring young adult's use of preventive health services is an access measurement. These measurements can't however be considered in isolation. Utilization and satisfaction have limitations in their ability to inform us on whether or not everyone who wants to enter the health care system is able to. Utilization is often characterized by type, site, purpose and time intervals of service (Aday & Anderson, 1974).

Access and Policy. The revised model added the concept of Health Policy to the otherwise behavioral model (Figure 4). Viewing health policy as a political concept made it easy to measure and allowed for a perspective that identified the effect of health policy on the health care delivery system and characteristics of a population (Aday & Anderson, 1974). Health policy does not affect immutable population characteristics, it does affect realized access. Further dissected, realized access is defined by use of services. In the United States, historically, improvements in access have been measured by increasing health service utilization rates. (Insert rates). Policy changes were put in place to increase access in the 1950s and 1960s. Those changes included increasing the number of physicians, augmenting hospital beds in rural areas and creating public insurance plans (Medicaid and Medicare). Realized access measures that

included the hospital and physician service use were implemented to monitor and evaluate the effectiveness of policies (Aday & Anderson, 1974).

Aday & Andersen

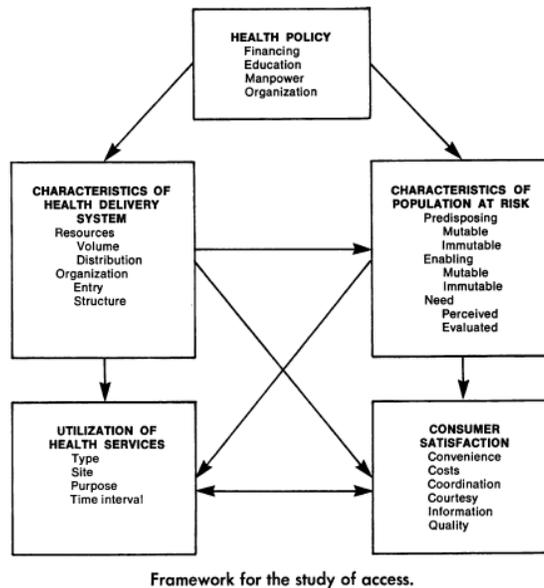


Figure 4. Framework for study of access

Overtime, the health care system took a less altruistic approach and began to concentrate on financial gain and efficiency (McManus, & Pohl, 1994). The 1970s health care system focused on cost containment and limiting access through policies such as co-insurance, deductibles, and managed care increasing healthcare costs for the consumer (Aday & Anderson, 1974). Disease management programs were put in place, incentives were given to doctors who met certain treatment guidelines and employees' were incentivized to seek out physicians with track records in efficiency (Barrett, & Arndt, 2005).

Young Adult Preventive Health Service Utilization. Although Anderson's model may be the gold standard for health service use, the model has not been applied to a number of populations including emerging adults. In fact, few studies have focused on young adult

preventive health service utilization. Those that do exist focus on specific illness or disease states (Peters, & Laffell, 2011; Beresford, & Stuttard, 2014) and health behaviors versus preventive health services as a whole. For example, one particular study compared peer and parental influence on young adult preventive health behaviors. However, the study evaluated “lifestyle changes” relative to diet, exercise, seat belt use, and drinking (Lau, Quadrel, Hartment, 1990) versus preventive health service use. None the less, the study drew attention to the developmental aspects of health behaviors. By testing an “Emerging Family Socialization Model” which posited that preventive health behaviors are learned by a child from their family and these behaviors remain stable over time and a “Lifelong Openness Model”, which posited that people are always open to persuasion researchers learned neither model held true in isolation, however a third mixed model emerged, “Windows of Vulnerability Model” (Lau et al., 1990).

Windows of Vulnerability was the best indicator for health behavior influence on young adults and identified that the parental influence on health beliefs and behaviors of a child will persist until a child is exposed to different social models of health beliefs and behaviors at critical points in their life. These “vulnerable” periods are: 1) adolescence, 2) leaving home to live independently, and 3) marriage and the establishment of a home. If during these periods, a child is exposed to differing views or behaviors, they will likely adopt these new patterns. These newly adopted patterns will remain stable unless during another vulnerable period where they are replaced by other differing views. The study also found that modeling of behavior is the strongest socialization technique in developing and reconstructing lifestyle changes. Two of the three vulnerable periods, leaving home to live independently and marriage and the establishment

of a home, are reflective of criteria that Emerging Adults feel need to be present for classification of adulthood (Arnett, 2007).

Cognitive Influences on Health Behavior

A number of theoretical frameworks, such as the health belief model and self-efficacy, mentioned earlier have been referenced in the model of health service utilization, however the model doesn't appear to consider perceptions of future selves. Research has shown that distinctions exist amongst young adult and other populations relative to possible selves in the health domain (Hooker, 1992; Hooker and Kaus, 1994). The Possible Selves theory may provide missing elements of consideration for a framework of preventive health service use among emerging adults. . Consequently, the theory of possible selves will be described and the application of this theory to emerging adult health behavior will be discussed.

Possible selves are the perception of our self in the past, present, or future (Markus & Nurius, 1986). They are made salient by our social experiences, context, images and culture. Self-concept influences our possible selves in that it determines how we react to certain stimuli. Possible selves allow us to participate in our own development and can help us to achieve or hinder our achievements. Possible selves are valenced (Lee & Oyserman, 2008), in that individuals have possible selves they want to become and negative selves they want to avoid. Markus and Nurius (1986) viewed possible selves as “bridges” between the present and future. Prior research by Markus and Nurius (1986), demonstrated that our current feelings are more strongly related to future probable, likely to be and ever considered possible selves than our now selves. In other words, what we feel about ourselves at a given point relates more to who we want to be than who we think we are right now. In the context of preventive health service use, one would want to avoid chronic disease (a negative self) and maintain health (positive self).

Functions of Possible Selves. Possible selves have two functions Markus and Nurius (1986). First, possible selves function as an incentive for future behavior and secondly they function as an evaluation and interpretation for ones view of self. As incentives, possible selves can direct our behavior and lead us towards achieving our goals. They motivate us to approach or avoid certain behaviors in relation to our goals. Self-regulation occurs as a result of possible selves when they are salient and attached to plans to achieve (Lee & Oyserman 2008). This interaction increases their sustainability. Utilization of preventive health services can provide a narrative for behavior modifications or indications of health status that then influence an individual's behaviors.

As an evaluative tool, possible selves provide meaning for current behavior and provide context for the possibility of reaching a goal. When an outcome is reached, possible selves help to determine the criteria to measure the outcome against (Markus & Nurius 1986). For example, if an individual goes through life with acquiring a chronic disease, they relate it back to their use of preventive health services such as visiting a primary care doctor annually. Possible selves can be categorized as positive (expected or hoped for) or negative (feared or avoided). They are often studied separately but can be studied collaboratively or in balance. Balance references the existence of both a positive and a negative self in the same domain (Oyserman & Fryberg 2006). The social contexts of adolescents and young adults help determine if a possible self is viewed as negative or positive. Self-regulatory behaviors are hindered when social contexts are not congruent with possible selves (Oyserman, Bybee, & Terry, 2006).

Lee and colleagues (2008) explained that focusing on future possible selves provides the opportunity for self-improvement and that as individuals focusing on the future is a major priority. They further identified that it is the continuous activities that an individual is involved in

over time that leads to a certain outcome. For example eating a slice of cake for dinner does not determine if a person will be obese. It is the habit of eating a slice of cake every day over a long period of time that can affect obesity. To avoid a possible self of obesity would then mean that the behaviour of eating cake every day would be avoided. As an individual comes closer to reaching their future positive self, they create more distance between their present and future negative self (Lee & Oyserman, 2008).

The majority of research on possible selves has been done in the academic setting but possible selves can be self-regulatory, impacting other behaviors (Hoyle & Sherrill, 2006). As compared to possible selves that reference feelings, self-regulatory possible selves are more likely to motivate current behavior (Hoyle & Sherrill, 2006). When individuals feel confident they can perform a specific behavior and sustain it, possible selves are more likely to produce behavior or behavior change. Confidence in behavior and consistency with self-representation are important (Hoyle & Sherrill, 2006). For example, if Emerging Adults are confident in their ability to access preventive health services and confident that those services will prevent future disease, they may establish routine patterns of preventive health service use. Strathman and colleagues found that possible selves influence behavior among those who strongly consider future consequences of their actions. To date, studies have not identified the degree to which Emerging Adults feel their future selves may be impacted by preventive health service use.

Possible Selves and Health Behavior. In relation to health behavior most possible self's research has been done looking at older adults. The given rationale has been that health is more salient for older adults because as individuals age they are more likely to experience health issues. However, the literature that does exist demonstrates that young adults have fewer health related possible selves and are motivated more by feared and negative possible selves (Hooker,

1992; Hoyle and Sherill, 1996; Hooker and Kaus, 1994; Aloise-Young, Hennigan & Leong, 2001).

Hooker (1992) examined the number of health related possible selves among young adults as compared to older adults and the value of health among the two groups. Hooker conducted a two part study to test her theory. In her study she utilized the questionnaire used by Markus and Nurius (1986) to identify the possible selves of the participants. The study showed equivalent ability of both the young and old population, approximately 71%, to identify at least one health related hoped for or feared self (Hooker,1992). Almost one third of young adults in the study lacked a health related possible self and only a small percentage had a most hoped for or feared self in the health domain.

Young adults scored lower on the health value scale in comparison to older adults. Young adults perceived their health as important and expected to be able to accomplish a hoped for self or prevent a feared self. Young adults were able to general more possible selves in both the feared and hoped for realms, but overall health possible selves were less salient. Many young adults identified that they took their health for granted.

Although Hooker's study points out that young adults have few possible selves in the health domain, for those that do have them, they exist in relation to weight. These findings may be important to health promotion when we consider the number of health issues attributed to weight such as diabetes and hypertension.

Hoyle and Sherrill (2006) sought to identify possible selves as a process by which behavior is regulated versus the concept proposed by Markus and colleagues that possible selves "mediate personal functioning" (Markus & Nurius, 1986, p. 954). They posit that possible selves are a control process model that occurs at different levels. Hoyle and Sherrill further state that

possible selves do little to influence future behavior if the current behavior is already aligned with the future goal. In these individuals, current behavior is more likely to be influenced by a feared possible self.

Looking at a sample of healthy college students, Hoyle and Sherrill's study activated hoped for and feared possible selves in the health domain to look at what made health more salient. Through activation of a feared possible self as defined by being unhealthy in the future, Hoyle and colleagues looked to determine this as a better motivation for health promoting behavior. The control study suppressed the self-regulation of half of the participants.

Participants were given a list of words that primed them for health related possible selves in either the hoped for or feared condition. The group was then shown an emotionally charged video clip and half were asked to suppress their feeling and emotions while viewing. All participants were then provided with a survey asking if they would participate in workshops on weight loss, exercise and nutrition and work with a personal trainer. Self-regulation was determined by the acceptance of these workshops by the participants.

Study results showed that priming of a feared self-produced self-regulation in the domain of health and not just the activation of a possible self. Individuals who feared unhealthy future selves were more likely to participate in health promoting behavior when self-regulation was not hindered. Possible selves were able to be manipulated to determine activation. Studies of possible selves and health behaviors of young adults reference saliency and its importance to behavior. Health in young adults as compared to older adults is less salient (Hooker, 1992) so a determination as to when saliency increases is important.

Hooker and Kaus (1994) looked to determine when health related goals became salient in the adult life span. Possible selves affect health behavior and therefore it is important to identify

at what point health related possible selves emerge. Hooker and Kaus (1992) previously identified that possible selves motivate behavior although the study looked only at older adults. Hooker and colleagues (1994) compared health related possible selves between young and old adults. Results showed that middle age adults reported more health related possible selves than young adults thus age can assist in the prediction of health related possible selves, but it can't determine self-regulatory processes associated with the domain.

The study further identified that feared selves in the health realm are more salient than hoped for selves for both groups. Examples referenced by the study were getting cancer and mental health issues. Young adults are more apt to participate in health behaviors for fear than hope (Hooker & Kaus, 1994), outcome expectancy didn't predict health behavior and health goals occur more frequently in middle age. Information surrounding outcome expectancy and its failure to predict health behavior was interesting and explained in part because of the realizing that health behavior is not a sole predictor of disease. Other factors such as heredity influence disease and are uncontrollable. Hooker and Kaus (1994) identified that outcome expectancy and gender were the most important predictors of achievement of positive health behaviors and avoidance of negative health behaviors.

Previous research focused on positive health behaviors and possible selves, Aloise-Young et al. (2001) explored the relation between the theory and negative health behaviors. Adolescent and young adult health behaviors are important health indicators identified by Healthy People 2020. Behaviors that begin in early adolescence help determine health problems developed in young adulthood and later in life. Aloise et al (2001) classified negative health behaviors as cigarette smoking and alcohol consumption. Results confirmed a relationship between positive expected possible selves and negative health behavior. Adolescents with

positive expected selves were less likely to participate in negative health behaviors and the number of positive expected selves was a significant indicator for girls.

Research presented has identified that possible selves in the health domain are infrequent among young adults and adolescences. When they do exist they exist in limited areas such as weight. Feared selves in the health domain are more prominent in this population. Health promotion and prevention activities tend to emphasize positive selves.

Limited research exists in regards to possible selves and health behavior among younger populations, this research is limited even further when that behavior is centered on preventive health service use. The current health service utilization model doesn't clearly demonstrate the influence of possible selves on overall nor preventive health service use. Existing research has identified key elements that may be beneficial to those in the health and wellness fields such as the knowledge that behaviors begun in adolescence impact future health outcomes; this information is crucial and has many implications for disease prevention and the adoption of positive health behaviors. Key to this work is helping younger populations generate possible selves in the health domain. Generating possible selves in the health domain at younger ages can assist in altering behaviors and decisions that lead to poor health outcomes. .

Judgment and Decision Making (JDM). Anderson's model previously identified the influence of individual determinants of health service utilization. Experiential and deliberate decision making are considered the two primary processes for judgment and decision making (JDM) carried out at the individual level. Experiential decision making is implicit and based on inductive reasoning which involves heuristics (Strough et al., 2011). Heuristics are a technique for problem solving that allows shortcuts in information processing. Heuristics are based on intuition and rules of thumb. The reliance on heuristics makes this decision making effortless.

Experiential processing utilizes minimal resources as it calls items into working memory subconsciously.

In contrast, the deliberate model is requires effort and relies on deductive reasoning (Strough et al, 2011). Deliberate decision making is considered more precise and accurate than experiential. Deliberate decision making is based on conditional statements such as modes ponens and modes tolens. Modus ponens is representative of the statement if A is true then B is true. For example, if I touch poison ivy, I will get a rash. The consequence follows the antecedent. Modes tolens is the reverse, if B is false, then A is false. I didn't get a rash so therefore I didn't touch poison ivy. The deliberate model is also considered to be more rational or normative (Albert& Steinberg, 2011).

In addition to the dual process model, fuzzy trace theory focuses on intuition instead of reason. Fuzzy trace theory states that over the lifespan, people engage less in deliberate decision making processes (Strough et al, 2011). Instead they make decisions based on the "gist" of information the overall meaning instead of paying attention to details. Biases associated with gist based decision-making increases with age as we are exposed to situations with different details but identical meaning.

The existing literature does not appear to posit that one decision-making process is better than another. However some researchers believe there are optimal decision making strategies (Krueger, Evans & Goldin, 2011). Depending on the types of decisions needing to be made, individuals may engage in different processes. JDM is also referenced from the standpoint of rationality which is associated with deliberate decision making. JDM processes allow us to become rational or deliberate in our decision making. JDM therefore can be viewed as a predisposing factor for health service use in that the JDM process is learned and how individual

processes information is not the reason why they seek health services. Rather people process information differently dependent upon their age and other factors and consequently they seek different patterns of health services.

Decision Making Heuristics

Heuristics are beneficial tools that aide in the JDM process. They are used more frequently in experiential processing. Heuristics are problem solving techniques based off of intuition. Their implicit nature allows them to be more efficient than deliberate decision making. They are great tools but they lack the ability to guarantee a result as they sometimes create bias. In adolescents, heuristics are facilitated through media, parents, teachers, friends and other means. (Klaczynski, 2001b). Five common types of heuristics will be discussed in the paper for the purposes of linking decision making influences to individual predisposing factors to preventive health service use as heuristics are affected by social, cultural and environmental factors (Tversky and Kahneman, 1974). People use heuristic processing more than deliberate because of its efficiencies. Heuristics allow context to play a role in decision making and are affected by preconceptions which may involve stereotypes or internal memories (Klaczynski, 2001b). This makes it difficult to reproduce the decisions that result from heuristic/experiential processing which is not the case for analytic/deliberate processing.

Representativeness. Tversky and Kahneman, (1974) proposed that representative heuristics cause people to assume the probability of events based on similarities in the environment. When representative heuristics are engaged, people ignore the base rate for an event believing that the similarities of events make them more probable. Similarity is determined based on the closeness to stereotypes we hold about a given subject. Our stereotypes are not representative of the base rate for an event which leads us to make errors in decision making.

An example used by Tversky & Kahneman (1974) involved determining whether someone was a farmer or librarian based on a short description. The example demonstrates that when a description is given to aid in decision making, the description evokes stereotypes. Those stereotypes lead us to ignore probabilities. However, when no description of a situation is given probabilities are more accurate. Stereotypes and schema of events are implicit in nature. Representativeness is tied to our stereotypes and schema thus making our judgments and decision appear valid to us. They present as inductive reasoning and are utilized when people are asked to determine probability of conditional statements such as if A then B (Tversky & Kahneman, 1974).

Availability. Availability heuristic is deployed when people are asked to determine frequencies or plausibility (Tversky & Kahneman, 1974). Availability leads people to believe things are more common than they are based on their ability to recall the situation. Recall is enhanced by frequent exposure to situations. For example, if a person routinely hears people saying that flu shots are ineffective, if asked to provide rationale as to why they don't receive flu shots, they will respond with a reference to their ineffectiveness.

The availability heuristic is closely related to storage and retrieval in memory. Storage strength increases based on learning and experience. Retrieval strength refers to the ease at which a memory can be recalled. It is influenced by contextual clues. The greater one's storage strength, the easier one's ability to retrieve information is. Saliency also affects recall (Tversky & Kahneman, 1974). In relations to preventive health services if individuals or populations have limited experience with or have not learned the benefits of preventive health services, they may be more likely not utilize the services believing that their behaviors are in line with others they know.

Anchoring and Adjustment. Typically employed when a numerical prediction is needed and a number or value, anchoring and adjustment present an additional heuristic (Tversky & Kahneman, 1974). The initial pieces of information provided to people are the “anchor” from which adjustments are made. People tend to adjust based on the first piece of information they are given and they have a tendency not to adjust enough. This insufficient adjustment leads to errors in decision making as people overestimate or underestimate (Tversky & Kahneman, 1974).

Heuristics and the biases they cause are not exclusive to any one group of people. The biases attributed to heuristics are also not the byproduct of incentives or motivation. Tversky and Kahneman (1974) provide evidence to the contrary in their research. They suggest instead that in spite of these heuristic people work to make rational judgments.

Framing Effect. Framing effects refer to how a problem is presented and perceived. The presentation of a problem as a loss or a gain biases the decision maker. Termed “preference reversal” people have a tendency to be risk averse and to avoid decisions that they feel will lead to harm. Risk aversion usually occurs when problems are framed as gains. However, people are risk seeking when options are presented as losses (Strough et al, 2011). Also called “risky choice framing”, the framing effect has implications across the lifespan in particularly amongst adolescents.

Judgment and Decision Making and Adolescents

Limited research exists on JDM and emerging adults, however if you consider the model of adulthood supported by Arnett (2007), transitions in adulthood are overlapping. Therefore associated literature on adolescents as a precursor for emerging adulthood is presented and identifies differences in cognitive processing across age (Albert & Steinberg, 2011; Tversky and

Kahneman, 1981; Klaczynski, 2001b); Baiocco, Laghi & D'Alessio, 2009). Individuals must make decisions to engage in preventive health service use and the basis for that decision making provides understanding of their use or non-use.

Research has demonstrated that cognitive processing is different in adolescents than adults with regards to risky decisions. Heuristics have been shown to impact decision making (Tversky & Kahneman, 1974; Strough et al, 2011). Developed over the lifespan based on our experiences and exposure to events, heuristics increase as we age (Albert & Steinberg, 2011). The more experience and exposure we have, the more rational our decision making. It is on the basis of rationality that differences arise between adolescents and adults. It is unknown if emerging adults engage in their own distinct processes.

Utilization of preventive health services require decision making. According to Tversky and Kahneman (1981) a decision problem includes the options that a person must choose, possible outcomes of the options, and contingencies that relate the outcomes to the option chosen. The decision problem is defined by the “decision frame” or perception of the problem by the decision maker. Framing allows the decision to be perceived in more than one way. Heuristics such as norms affect how framing occurs. Preventive health service use and its associated benefits may be perceived differently by different populations, particularly when barriers to use such as cost and access are improved, yet preventive health service use remains stable.

Tversky and Kahneman (1981) relate these changes in perception to looking at a visual scene involving mountains. They propose that a person’s view of two mountains of the same height should not change regardless of the viewing point, thus decisions should not change because of differences in how a problem is framed. However, their research proves the latter

untrue. Their study involving research on university students illustrated “preference reversal” based on framing effects. Utilizing two scenarios, one of which presents as risk aversion and the other as risk taking, the study demonstrates that identical problems can be perceived differently and subsequently decisions made based on utility.

As cited by Tversky and Kahneman (1981) a rational decision maker seeks the decision with the highest utility. Preference reversal demonstrates response bias (Tversky, Slovic, & Kahneman, 2001). The subject utility curve demonstrates that the response to loss presents steeper than the response to gain as shown in Figure 5 (Tversky & Kahneman, 1981). Risk aversion occurs as a result of perceived increase in loss.

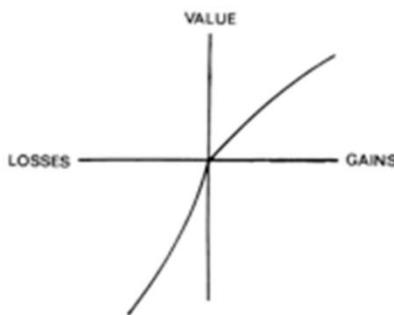


Fig. 5. Subject utility curve

Tversky and Kahneman (1981) demonstrate that if framing effectively reverses the presentation of a decision in a manner to which it is perceived to have lower risk or to represent gains and losses, that decision will be chosen. This holds true for all decisions including those that are monetary. Tversky and colleagues (2001) demonstrate that in monetary situations, framing effects lead people to choose short term payouts but they assign higher value to higher long term payout. Framing can also impact the acceptance or rejection of responsibility for a particular consequence (Tversky & Kahneman, 1981).

Adolescents use dual processing approaches in decision making. Klaczynski (2001b) refers to this dual process not as experiential and deliberate but as heuristic and analytic.

Analytic processing produces decisions that fit the norm. Heuristic processing produces decisions that are against the norm. Klaczynski (2001b) rationalizes that the systems in the dual process function in different ways but both are necessary for cognitive adaptation. As such both processing systems also improve with age.

Understanding the level of rationality demonstrated by adolescents helps determine their decision making mechanisms. Baiocco, Laghi, and D'Alessio (2009) found that older adolescents used more rational decision making than younger adolescents. Their study included 700 high school Italian students with a mean age of sixteen years. High schools in Italy are comprised of five grade levels. Students were asked to complete a number of scales that required 20-25 minutes for total completion. The scales included; general decision making, sensation seeking and locus of control. The general decision making scale measures five decision making styles and is comprised of 25 questions. The study sought to determine the degree to which they made rational decisions.

Baiocco and colleagues (2009) found a negative correlation between rational and spontaneous decision making styles among adolescents. This suggests that adolescents in fact tend to make decisions in a logical way. Rational decision making styles were also more prominent amongst adolescents with internal locus of control as defined by “the extent to which individuals believe they can control events that affect them” and adolescents who are cognitively disinhibited have difficulties in everyday life decision making (Baiocco et al., 2009).

The findings of this study also support the idea that decision making improves as adolescent's age. However, in light of rational decision making, heuristics appear to affect adolescent decision making processes. Therefore, adolescents possess rational decision making capabilities yet still engage in high proportions of risk behavior. These behaviors call to question

the perceived gains or losses to the adolescent of the chosen risk behavior. Arnett's model of adulthood demonstrates an overlap in the transition from adolescents to emerging adulthood signifying that decision making processes seen in adolescents may also appear in emerging adulthood.

Klaczynski (2001a) states that analytic or deliberate processing depends on structured and agreed upon skills that have been used routinely as a base for cognitive development. These skills are computational and include the ability to determine ratios, propositions, comparisons and probabilities. The use of logic is also consistent in analytical processing to allow decision makers to reach consistent reasoning even when problems vary superficially. Analytic processing is a conscious effort. Klaczynski (2001a) examined the impact of heuristic and analytical framing on adolescent decision making. Among the many goals of the research, one primary goal was to determine if simple rephrasing of a problem would lead adolescents to be swayed to utilize one processing method over the other as heuristic processing has been considered default processing for adolescents. Klaczynski's research stemmed from the Tversky and Kahneman research that showed small differences in wording make dramatic differences in decision making among college students.

The study involved 28 early age adolescents, 31 middle age adolescents and 31 young adults (Klaczynski, 2001b). Participants had to respond to six JDM problems in a 15-20 minute session. The problems covered probability, counterfactual and sunken cost judgments. Two framing instructions were given after each problem to determine the default or usual heuristic processing method of participants and to gauge whether a shift occurred to an analytic style based on the framing. If the first response was analytic no shift should occur based on framing. Problems were then scored.

Results indicate that heuristics affect JDM and that the capacity of adolescents in making analytic decisions is not limited. It is however affected by their ability to reduce contextual interference in decision making (Klaczynski, 2001b). When cued the ability to reduce this interference is greater as it signals for a decision maker to ignore their default problem solving process. As pointed out by Klaczynski (2001b), however, people don't typically monitor their decision making, and for adolescents this results in the belief that their style of processing works. Framing has limited effect on changing decision processing. Therefore, interventions to reduce less optimal decision making in adolescents has to include both decision making processes.

In a separate study on the impacts of analytical and heuristic processing on adolescent decision making and reason, Klaczynski (2001a) exposed adolescents to JDM tasks that intentionally created conflict between the two processing types. Responses were coded as non-normative (NNR) or normatively correct (NCR). NNR reflect more heuristic response while NCR reflect more analytic. The goal was to determine if NCR increased with age thus signifying an increase in analytic processing for older adolescents (Klaczynski, 2001a).

Klaczynski (2001a) assessed the response of 66 early adolescents and 76 middle adolescents enrolled in a public elementary and public high school. Participants attended two 35-45 min sessions separated by one day at in which they were asked to respond to JDM problems. All participants were given the Primary Mental Abilities Verbal Meaning test as a predictor of intelligence. JDM problems were chosen from previous heuristics and biases research and response format was consistent with previous JDM research on adults. Problems were representative of conditional reasoning, contingency detection, knowledge, statistical reasoning, gamblers fallacy, outcome bias and hindsight bias.

Results of the study indicate that middle adolescents had higher scores on most NCR and when NCR was the resulting response the analytical system was dominant. NNR was present when heuristic decision making was dominant (Klaczynski , 2001a). Age and verbal ability also correlate with analytical response and NCR. Adolescents focus on outcomes to judge the efficacy of their decisions and older adolescents are more adapt at filtering out context. It is unknown if emerging adults use similar decision making processes, however outcomes from preventive health service use may not materialize for years limiting the ability to judge the efficacy of a decision.

Klaczynski (2001a) indicates that analytical decision making is not the primary method for middle adolescents and adolescents are subject to heuristic processing when decisions and outcomes are dependent on two processing methods. Yet heuristic processing is chosen more frequently due to its efficiencies. Rationality depends on both processes. Klaczynski (2001a) supports the dual processing approach and draws attention to the products of each process and not just the process as both produce NCR and NNR. He further posits that although heuristic processing is implicit, it is momentarily conscious. It is during this moment of consciousness that adolescents should evaluate the potential product of the heuristic process against options that may be more analytic.

Data from the National Longitudinal Study of Adolescent Health was reviewed by Wolff and Crockett (2011) to test whether or not adolescents who practiced deliberate decision making were less likely to engage in risk behaviors. The study involved 7,748 students extrapolated from an original data set of 12,765 adolescents from 80 high schools and 52 middle schools in the U.S. Variables were measured at two different data points, year one and year two, depending upon the concept. Deliberative decision making was measured in year one. Other measurements looked at

parental support and autonomy granting, deviant friends, frequency of risky behaviors, demographics and delinquency (Wolff and Crockett, 2011).

Deliberative decision making involves five steps as proposed by Wolff and Crockett (2011): 1) Identification of possible outcomes, 2) Identification of possible consequences, 3) Evaluation of the value of each consequence (gains/losses), 4) Determine the probability of each consequence, and 5) Combine all assessments into one to demonstrate a solution that will result in a positive consequence or reduce the likelihood of a negative consequence. This process is interrupted in adolescents when they are faced with real world risk taking opportunities (Wolff & Crockett, 2011).

Results demonstrate a positive relationship between deliberate decision making and age. Suggesting that deliberate decision making is a learned process that improves with age and experience. Wolff and Crockett (2011) suggest that the buffering effect of deliberative decision making is most salient in older adolescents. This could be due to older adolescent's presumably having greater experiences and exposure to various situations.

The tendency for adolescents to engage in risky behaviors can greatly impact their future (Wolff & Crockett, 2011). Wolff and Crockett (2011) demonstrate the ability of adolescents to engage in deliberative decision making is not enough to prevent them from making less optimal decisions. The social context surrounding the adolescent needs to also be considered specifically in regards to parental support. Judgment and decision making is not isolated to one process. Both experiential and deliberative processes play a role in JDM. Tools such as heuristics can aide or hinder JDM. Adolescents are especially susceptible to JDM as they have limited experiences and may view the gains or losses of an option in unique ways. Adolescents and young adulthood is often associated with a period of engagement in negative health behaviors (CDC, 2012b).

Research has demonstrated relationships between age and rational decision making. There appears to be a difference between generated research on decision making and the behaviors that adolescents exhibit in the ‘real world’ where they are not necessarily cued for analytical thinking. The studies presented focused on adolescents decision making, however the commonality between the studies pointed to the fact that judgment and decision making improves with age. If emerging adulthood is the next phase on the lifespan, and population health goals aim to increase emerging adult use of preventive health service, then more research is needed on how adolescent JDM transfers to the emerging adult.

Study Purpose and Research Questions

This study aims to explore the factors that influence preventive health service and health care decision making among emerging adults. This study will take a qualitative approach, using grounded theory to identify if a separate framework of utilization emerges for this population. As a qualitative study, findings will expand the literature around emerging adults, population health and health policy by answering three questions:

Research Question #1: What influences emerging adults’ preventive health service use?

This key question seeks to build on the literature of emerging adults and models of health service utilization by focusing on non-illness driven, preventive health care. From a population health perspective, preventive health service use can decrease chronic disease, and studies have shown that access to healthcare can increase utilization (Anderson et al., 2010). Recent health policies such as the ACA have reduced many of the barriers to health service use such as access to insurance coverage and cost sharing, considered enabling factors in the Anderson model of health service use (Aday & Anderson, 1974). However as mentioned earlier Anderson’s model was not specific to emerging adults and knowledge of what influences preventive health service

use among emerging adults is limited. Furthermore, given the three criteria for adulthood as established by Arnett (2000), it is unknown how healthcare decision occurs amongst emerging adults.

A sub-question that will be explored is how has the Affordable Care Act helped or hindered preventive health service use? Access to healthcare has been a central focus of policies and programming; however, changing the health behaviors of emerging adults will take more than just providing access to insurance coverage and improving other enabling factors such as healthcare policy. Providing insurance access to emerging adults was a key focus of the Affordable Care Act, answers to this question will provide insight into the perceptions of emerging adults on this societal influence. The information obtained could be useful in understanding further the connection between access and health service use.

Research Question #2: What decision making processes do they engage in relative to preventive health service use?

Although access to preventive health services may be improved for emerging adults, this question will provide rich description of their judgment and decision making skills relative to preventive health service use. This key research question will provide insight into the cognitive factors that affect the emerging adult population. According to research by Tversky and Kahneman (1974) the more heuristics we have the more rational our decision making. Heuristics develop and increase with age and experience. Emerging adult experiences with navigating the health care system and their receipt of preventive health services may be limited. In addition, behavior change takes place when one believes they can be impacted by health conditions. Answers to this question will be useful in designing interventions and changes in policy that will benefit the health care system.

Chapter III

METHOD

Study Design. This study explored a grounded theory approach, originally developed by Glasser and Strauss, to “discover or generate” substantive level theory (Creswell, 2013). Data collection and analysis were conducted simultaneously using constant comparative analysis of semi-structured interviews of emerging adults. Participants were selected based on three and snowball sampling was utilized to identify participants. Interviews were continued until theoretical saturation, estimated at minimum 20 participants (Creswell, 2013). Saturation was reached after 21 interviews. This research is suited for grounded theory as it seeks to explore preventive health service use among emerging adults and no framework focused on this target population currently exists. Information obtained from the study will enhance our understanding of emerging adults as a population group. A three step coding process (Strauss & Corbin, 1990) was employed. (see figure 6).

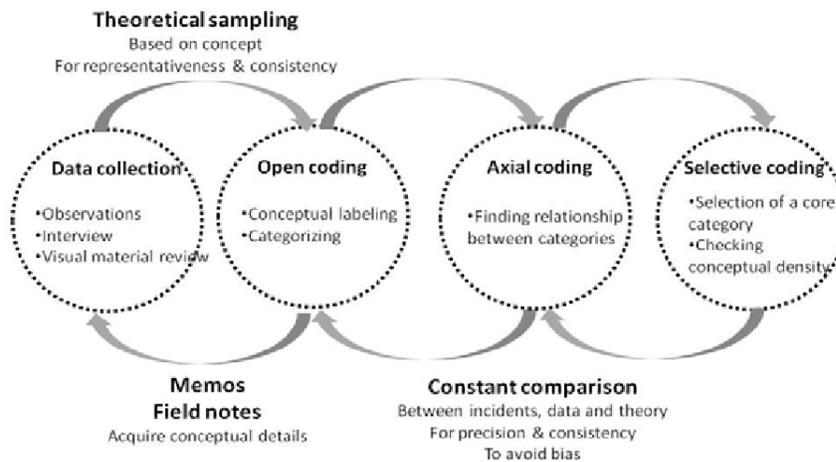


Figure 6. Open, axial and selective coding process

Participants

Twenty one emerging adults residing in the state of Kansas were purposively sampled based on the following criteria: (1) between ages 18-26 and (2) independently insured through either the Affordable Care Act's (ACA) Health Insurance Marketplace or a private insurance company and 3) Kansas residency. Independently insured is defined as having acquired insurance independent of their caregiver. In an effort to examine possible differences amongst participants based on insurance type, it was hoped that half of the participants will be insured through the ACA Health Insurance Marketplace and half through a private insurance company. The sample size is based on general recommendations according to Creswell (2013). Study recruitment included participants with various racial/ethnic and socioeconomic backgrounds. Participants were recruited using email and word of mouth. Emails were sent by the PI to student organizations based at Wichita State University, Kansas State University and personal contacts of the PI. Entities and individuals receiving the email were asked to forward information to those in their networks as well.

Procedure

The timeline for data collection and analysis is shown in Table 1. Initial contact with participants was initiated by the lead investigator (J.M.). Those who met criteria and were interested in learning more about the study and/or who were interested in signing up for participation were then scheduled for an interview. Participants were aware of the study through flyers, email or heard about the study via word-of-mouth. During initial phone calls, the lead investigator (J.M.), re-screened participants according to study criteria and provided a detailed description of the study to participants. Those who met criteria were then asked to complete a demographic questionnaire. The questionnaire was read to participants by the lead investigator.

All interviews were conducted between January and February 2016. Verbal consent was obtained at the start of each interview. Six of the 21 interviews were completed in person and the remainders were by phone. Interviews lasted on average 27 minutes and were tape recorded.

Table 1. Study schedule

| | | | | |
|-------------------|----------------------------|--------------|--------------------------------|--------------------------------|
| Activities | Recruitment and interviews | Analyze Data | 1 st coding meeting | 2 nd coding meeting |
| Dates | Jan. to March | Jan to March | March | March |

Data Analysis

All interview data were transcribed verbatim and de-identified by the lead investigator (J.M.). Interviews were assigned pseudonyms. NVivo 10 was used to manage and analyze data from the interviews. Base on grounded theory analysis, a three-step coding process was employed to systematically analyze the interview data: open coding, axial coding and selective coding (Creswell, 2013). The analysis was completed by a research team comprised of the lead investigator (J.M.), three graduate students and one undergraduate student.

Before initiating the analysis process, the lead investigator (J.M.) read over each transcript two to three times. The first step in analysis (open coding) involved the lead investigator analyzing line-by-line the transcript data of the first three interviews to identify prominent information and develop categorical information. Once categories were identified the remaining transcripts were coded sentence by sentence. New categories were added as needed in the initial coding process. Once all transcripts had been coded, a second phase in open coding was initiated by J.M. The process included condensing the open codes further based on themes or processes.

After open coding, the research team was gathered for series of three meetings. At the initial meeting the overall coding process was reviewed. Members were given written examples of axial

and selective coding, and the development process of the open codes was reviewed. The team was then given the condensed coding categories and associated coded information and asked to review the data and codes for consistency. This coding review provided a level of validation. The research team members analyzed the data individually and brought their reviews of open coding to the second team meeting for the next step in the coding process.

During the second team meeting, team members reviewed all coding categories and came to consensus on category headings. Consensus was reached when three or more team members felt a heading was sufficient. Categories that did not reach consensus were notated by the PI. Meeting two was also used to carry out the second step of analysis (axial coding). The research team reviewed the previously broadly defined categories and formulated subcategories. They then looked for links between the broader and subcategories by identifying recurring concepts within the data. After axial coding, the lead investigator developed a coding chart based on the interview data and associated the codes with literature to develop theory. During axial coding the research team again sought to reach congruency on categories. When consensus was not reached on a given code, it was excluded from further analysis.

The third meeting of the research team involved the completion of axial coding and the last stage of analysis (selective coding), to identify core or underlying codes. Axial codes were grouped according to relatable concepts and then themed. Selective codes were then chosen based on consensus. Once selective codes were identified, the lead investigator compared the themes to existing memos that were captured during the data collection process.

Data Trustworthiness

Memoing. The lead investigator used memoing throughout the entire coding process. Glaser (1998) defines memos as “the theorizing write-up of ideas about substantive codes and their

theoretically coded relationships as they emerge during coding, collecting and analyzing data and during memoing”. During the data analysis process, the lead investigator used a notebook to keep track of ideas and reflections during the analysis process. These memos were used to explore potential emerging theories.

Member Checking. After completing the analysis, a few participants were invited to a short meeting to individually verify the truthfulness of the findings and interpretations. This approach is adopted from Creswell’s (2013) grounded theory. Participants were provided with a list of the emergent themes (and their associated definitions) as well as the emergent theory. The lead investigator asked guiding questions (e.g., do these findings accurately capture my experience?) to capture participants’ feedback.

Testing the Theory. After member checking with study participants, the lead investigator asked guided questions of two people outside of the study’s target population to test the emergent theory. These people were over the age of 40, female and had health insurance for over 10 years.

Chapter IV

RESULTS

As described in Chapter 1, according to Anderson's model (Anderson & Newman, 1973), health service utilization is influenced by a number of determinants including societal, health service system, and individual. The model although prominent was not tested specifically on preventive health service use nor emerging adults. This study sought to generate theory around 1) What influences emerging adults' preventive health service use?, 2) How has the Affordable Care Act helped or hindered preventive health service use?, 3) What decision making processes do they engage in relative to preventive health service use? A total of 21 emerging adults completed interviews either in person or by phone. Interviews averaged 32 minutes in length. All participants were asked to complete a quantitative demographic survey. Upon initial distribution one survey was emailed to a participant prior to interview and was not returned resulting in only 20 surveys being completed. Results of the demographic survey will be presented first to provide a profile of participants followed by findings from the semi-structured one to one interviews.

Participant Demographics

The mean age of participants was 24 years old and 80% of participants were female. Ethnically, 35% of participants identified as African American and 25% Caucasian and Hispanic. Forty five percent of those interviewed were enrolled part time in a college or university. All participants were insured with the majority, 55% , being insured through their employer. Eighty percent reported having a primary care physician. In response to the question, "How worried are you about your future health", 70% stated they were not too worried or not worried at all. Seventy percent reported that they often think about how their current health

behaviors will affect their future health. Eighty percent felt that using preventive health services would reduce their risk of developing chronic disease in the future. When asked if they felt making health care decisions was a skill required for adulthood, 100% of participants agreed. The demographic make up of the group is shown in Table 2.

Table 2. Participant demographics

| Key demographic characteristics of interviewees | | | |
|--|----------|---------------------|----------|
| N= 20 | N | | N |
| Age (M=24,SD = 2.05) | | Income | |
| 18-20 | 2 | Less than \$24, 999 | 5 |
| 21-23 | 5 | \$25,000 - \$49,999 | 10 |
| 24-26 | 12 | \$50,000 - \$79,999 | 2 |
| | | More than \$80,000 | 3 |
| Gender | | | |
| Female | 16 | | |
| Male | 5 | | |
| Education | | | |
| Less than high school | 1 | | |
| Highschool | 1 | | |
| Some College | 6 | | |
| Associates | 1 | | |
| Bachelors | 9 | | |
| Masters | 2 | | |
| Race/Ethnicity | | | |
| White/Caucasian | 5 | | |
| Black/African American | 7 | | |
| American Indian | 1 | | |
| Hispanic | 5 | | |
| Other | 2 | | |

Interview Analysis

The emergent theory proposes that preventive health service utilization among emerging adults is influenced by the emerging adults ability to cognitively frame the decision to seek care. This framing is best understood as a relationship between; the transition to adulthood, decision making processes, and foundational knowledge. This phenomenon is best characterized as “return on investment or utility” which describes emerging adults value perceptions of preventive health service use.

The four constructs that contribute to the emerging theory are reviewed in detail from the aspects of causal conditions, intervening conditions and actions that influence how decisions around preventive health service use are framed and the resulting consequence of that frame. “Factors of Independence” as a causal condition describes the characteristics of the transition from adolescents into emerging adulthood. “Decision Framing”, describes the processes that emerging adults engaged in when contemplating preventive health service use. “Pre-established patterns of behavior” and “ACA impact” represent the participants understanding, knowledge and exposure to PHS and the ACA. Finally “Inconvenience” captures the perceptions of loss that emerging adults feel they incur when choosing to seek preventive health services.

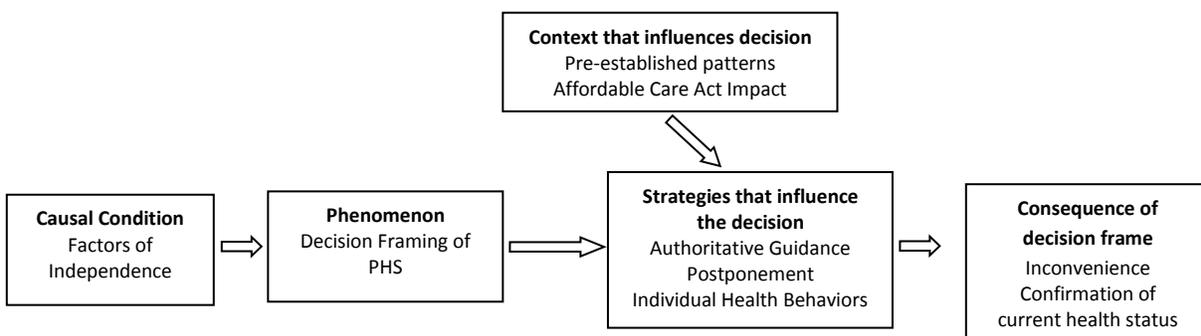


Figure 6. Constructs and the main categories of the theory

As each construct is discussed, direct quotations will be used to illustrate the emerging theory and in vivo codes, representing the wording provided by participants, will be bold and italicized. As discussed in the methods section each participant was given a pseudonym and quotes will be presented by these names. Following a format similar to Richie et al. (1997) results are discussed using particular terms to indicate the frequency of endorsement. The phrases “the majority of,” “many,” and “most” were used to discuss concepts expressed by at least 11 of the 21 psychology participants. The words “some,” “several,” and “a number of”

show that 6 to 10 of the participants supported the concept. “A few” was used to indicate concepts expressed by 5 or fewer participants.

Table 3. Endorsement of Main Categories

| Themes | Description | # of participants endorsing |
|---|--|------------------------------------|
| Causal Conditions Factors of Independence | Used to describe the characteristics participants felt were associated with establishing their adulthood. These characteristics were most commonly <i>relying on your self</i> and <i>juggling</i> demands | >11 |
| Phenomenon Decision Framing of PHS | The main phenomenon that impacts preventive health service use | |
| Context of Phenomenon Preestablished Patterns of behavior ACA | References the internal factors developed through social modeling or existing in the environment that influence the phenomenon | >6 |
| Strategies of Influence Authoritative Guidance Postponement Individual Behaviors | References those instances where decisions are made only to satisfy requirements by external forces such as employment. Individual behavior encompasses the self-imposed delays in seeking care and activities participants engage in to maintain their health | >6 |
| Consequence <i>Inconvenience</i> /loss Confirmation of Current Health Status | Describes consequences resulting from the decision to seek preventive health services described as loss (monetary, time, and relationship) or confirmation that they are healthy | >11 |

Factors of Independence as Causal Conditions

As emerging adults the transition to adulthood included dynamics described as activities or roles. Emerging adults within the study identified similar criteria for classification of adulthood as Arnett (2007). They identified the need to be able to “take care of yourself” or others (if you had a wife or children). When probed further, taking care of yourself was defined by financial responsibilities, independent living, and independent decision making. Participants also expressed their inexperience in dealing with the demands of adulthood. These factors were coded as “factors of independence” as they appeared to be foundational components that contributed to participants decision framing. As stated by participants,

“ I think that what determines you as being an adult is you being out on your own, in your own place, paying your own bills and your own insurance and making your own decisions about your life..” JM

“Once you’re an adult, you’re basically depending on yourself to survive, you no longer are depending on your parents, you’ve hit a stage in your life to where you’re looking out for yourself.” LT

Most participants frequently associated an increased reliance on self as a characteristic of adulthood. They expressed that as an adult you must take care of “your own needs” and “juggle” the multiple demands required to meet those needs. The majority of participants time was devoted to college attendance, employment and securing other needs such as transportation or paying bills. In a few cases, these demands were also coupled with caretaking roles. These demands were perceived as priorities.

“ ...being an adult is being able to take care of a majority of your needs...” CJ

“ I’m working on moving out of my parent’s house, so um..but I’m also working on paying for a car, my phone bill, um and I’m an artist so I need art supplies.” JT

“ I guess you’re just like finally getting out and getting on your own and just trying to pretty much juggle life, so it could be a lot, especially if you’re new to it. “ JJ

Although these demands are fairly common for adults, most emerging adults seemed to reflect upon these priorities as if they were unique to this age group. When asked specifically about the relationship between adulthood and health care decision making, participants felt that healthcare decision making was an adult role and the ability to make healthcare decisions further signified independence from their parents.

“I think being on my own I can kind of do whatever I wanted I don’t have to be like ok mom I want to go to the doctor I can just go if I feel the need to go which in some weird way seems easier.” RW

Decision Framing Phenomenon

Emerging adults perceive health as the absence of illness. In the absence of illness, they tend to feel there is no reason to go to the doctor. Even amongst those participants with an established chronic condition, health care use centered on services for that particular condition.

“ I have never really made an appointment before like not being sick prior.” WG

“ I'm not constantly sick or have something I can't get rid of and I think I'm in pretty good shape.” JJ

“...because I'm not sick or anything, I have no diseases or...” EG

“I would say maybe not as good as I want to be, but right in the middle because of where I'm at.” KP

Decision making was viewed as an adults role, however healthcare decisions were mentioned as decisions that required experiential learning unlike other factors of independence and participants felt that these experiences helped to develop a knowledge base for “well care”. The statement below captures the degree of importance placed on health care decisions. Yet, the degree of preventive health service use and knowledge by participants was low.

“...it's important for you to understand how to make these decisions and understand the policies and all that it entails because your life can be depend on it.” LT

The decision to seek preventive health services unlike the decision to seek acute health services, was not inherent in the decision making processes for participants. Participants lacked representative heuristics and knowledge to help frame their decision. The majority of participants did not have a preestablished history of using preventive health services. The decision frame that participants associated with preventive health use is best described below.

“I think that people that go get preventative healthcare services or see that as a priority know that there's something thats going to happen.. like they know there is something in their medical history that is going to make them more likely to get whatever disease or whatnot” MM

Context that Influences Framing of Preventive Health Services

Making the decision to use preventive health service is influenced by participants knowledge and heuristics. Most participants lacked a clear understanding of preventive health services. When asked about their understanding of preventive health services, most participants were unaware of the meaning of the formal term. However, they were capable of providing definitions based on literal translation of the phrase. Most were also unaware of specific screenings associated with the term, specifically those which were indicators for chronic disease such as screenings for blood pressure or cervical cancer. Participants definitions of preventive health services centered around the phrase such as “services you engage in to “make sure your are ok” or “getting checked before you catch something.”

“ Going to the doctor regularly at least to make sure you're doing ok.” LT

“..just making sure like the yearly checkup, making sure everything sounds ok.” EG

“ Like getting checked on or like somewhere you can get seen or checked on before you get... catch something” JJ

“what you would do to keep yourself in good shape and good health before your body requires doctor's care.” JB

Among participants there were explicit gender differences in awareness and utilization. Most female participants routinely received pap smears in the absence of any other preventive health service. Pap smear use was highly facilitated by social norms and the patterns for use were most frequently established when the women were younger. Amongst those that attended college the pattern for use was also influenced by what participants referred to as frequent health messaging by the college around STD prevention.

When probed further about preventive health service use, participants shared that when they do visit the doctor regardless of the reason, their weight and blood pressure are routinely

checked, but most had no awareness of the purpose behind these screenings. For example, few drew the connection between blood pressure screening as an indicator for hypertension or heart disease.

“Yeah I didn’t really know.. I wasn’t really educated so I didn’t really um do any preventive things.” SL

“what you would do to keep yourself in good shape and good health before your body requires doctor's care. “ JB

Several participants recalled receiving preventive health services when their parents handled their health care. Among the services they recalled most frequently were immunizations and routine physicals. Most participants sought health services when they were sick thereby establishing patterns of only seeking and using health services when symptoms of illness are present. Most participants maintained these patterns of health service use as emerging adults. Among those participants who did have an established history of preventive health services use by their parents, those patterns were not continued into adulthood. The quotes below capture participants responses when asked about their understanding of preventive health services and their preventive health service use.

“..when I think preventative care, I think of yearly checkups, so like a yearly physical or maybe some things that are more gender specific like a pap smear, something along those lines.” LT

“ ...got a pap smear um um and birth control, I guess that counts as preventive care” NF

“But I’m not too educated about when I need to go to a visit or which exams, that kind of thing.” SL

A few participant heuristics included the use of home remedies, which included the use of treatments passed down from family members. Whether the use of home remedies was more strongly associated with specific cultural groups was unable to be determined, but should definitely be explored further.

“..almost like everything got cured at home so like it was really rare when we did see the doctor.” WG

Intervening Conditions that Influence Framing of Preventive Health Services

In addition to the frequently modeled behavior of only seeking health services when symptoms are present, the additional context that influences emerging adults in their decision framing process is the existence of the Affordable Care Act. All participants in the study subscribed to their own insurance plans. The impetus for acquiring insurance was clear amongst participants, most obtained insurance based on the requirements of the Affordable Care Act (ACA). All participants were aware of the ACA mandate requiring everyone to obtain insurance and the penalties that would be incurred if a person were not insured. For most participants this penalty served as a motivator to obtain insurance. Comments around the penalty were captured below.

“I heard like if you were uninsured you could get like penalty or something like that so that’s something I wanted to make sure I took care of”. WG

“I also know that as far as the Affordable Care Act is concerned, it's important to have insurance because it's not a... like they make you pay a fee, or a fine I should say, for not having anything” LT

Participants acquired insurance from a variety of sources, however most were insured through their employers. Although the ACA was impetus for many participants to obtain insurance, participants awareness of other provisions of the ACA was limited beyond the penalty for not having insurance. Most participants were unaware that preventive health services were covered 100%, meaning there is not associated costs to those who utilize these services. While, participants were supportive of the idea that the ACA provided insurance to those who “needed” it, the majority didn’t seem to include themselves in the “need” category, as most participants were employed and received their health insurance through employment.

Knowledge of health insurance benefits amongst most participants was low with many stating they were not actively involved in the selection of their health insurance plans. Those with government sponsored insurance, such as Medicaid or Tricare, appeared to have a greater degree of satisfaction with their coverage and sought health care most frequently. The ACA served as an intervening factor that pushed emerging adults to acquire insurance, but for most participants acquiring insurance did not increase preventive health service use. A number of participants lacked knowledge regarding the benefits of their health insurance.

Strategies that Influence Preventive Health Service Framing

Emerging adults engage in specific strategies to mediate how they frame preventive health services. Those strategies include following authoritative guidance and engaging in individual behaviors to nudge their decision making processes away from using preventive health services. “Authoritative guidance” was the code given to participants references to following external guidance on when they should seek care, particularly preventive health services. Most participants stated that when they sought non-illness related care, they do so as a requirement for work or based on instruction given from other figures of authority such as their parents.

“Unless we had to go get physicals for like for school to be a part of sports to go get shots for school or um to stay enrolled in school” MM

Individual behaviors such as “postponement of care” was a common strategy among several participants. In the presence of non- injury related or acute symptoms, there was no clearly definitive or quantifiable point at which participants decided to seek care. Many stated, they would “put off” going to the doctor until they “had to”. When probed to identify what was meant by “had to”, participants failed to offer a clear definition. These decisions were highly subjective but heuristic patterns established over the course of the emerging adults life. Most

referenced, that their families only sought symptom driven care. Participants had clear opinions of their health status and offered examples of individual behaviors they engaged in to keep themselves healthy. For most these strategies supported their decisions to frame preventive health services on the individual level as a service with minimal value

“ I work out 3 times a week minimum. I just started running...” JB

“Pretty healthy, I mean I've always tried to stay active. “ S2

Consequences of Decision Framing

Most emerging adults expressed the belief that preventive health service use helps prevent chronic disease in the future. However, the value of PHS use among emerging adults diminishes with the demands of adulthood. Most participants priorities are on establishing and maintaining independence from their parents. When “*juggling*” the demands of adulthood most emerging adults perceive preventive health service use as an inconvenience even though they understood the benefits of preventive health services, 80% stated that they felt preventive health services can prevent chronic disease in the future. Participants still tended to only go to the doctor when symptoms or illness was present due to the inconveniences associated with preventive health service use. Preventive health service use is perceived as an inconvenience that impacts their time, money and relationships.

“Right now I only see doctors when I absolutely have to...um it's just more convenient that way...”NF

“I had to pay a certain amount of money, so I would have to think “is this worth going in and getting this looked at or is it not?” CJ

Emerging adults felt the independence and responsibilities associated with adulthood required greater demands on their time. Participants didn't feel they had hours during the day to devote to PHS appointments and a visit the doctor required them to give up hours or time

towards greater priorities. Several participants shared the uncertainty associated with the length of time required for doctor's visits and reflected on the reality that you could spend up to 4 hours at a particular doctors appointment and that scheduling an appointment doesn't eliminate delays.

"...probably time, finding time in my schedule to go." RW

Time was also referenced in relation to time management. Participants didn't see a space for doctors visits to fit in the presence of the other demands in their lives.

".....where there's so much pressure to go to college and be working at the same time and doing all of these things, I think most people just don't feel like they have the time to go on a routine basis." LT

".....like thinking about things and doing a lot of things your first time by yourself like paying all your own bills or your taxes and whatever else but things like that can seem super exhausting doing it all the time so its time consuming and instead of doing something routine you have to learn how to do something so it can seem overwhelming."
RW

Participants frequently referenced the costs associated with the receipt of any form of medical care as a monetary inconvenience. Specifically in relation to preventive health services, one participant stated it best, "Why do I want to pay for something I already know". This comment embodies the perception that all participants felt they were healthy to varying degrees. No one felt they were at optimal health but consensus was that paying for a doctor to confirm you were healthy had limited value. Several participants directly identified costs such as copays and deductibles, often referencing the relationship between these out of pocket costs and the benefits of insurance. Participants identified without insurance their out of pocket costs would be higher, but they still chose to seek care as a last resort. As one participant stated,

"I had to pay a certain amount of money, so I would have to think "is this worth going in and getting this looked at or is it not?" CJ

The final inconvenience of seeking care centered around relationships, specifically the hardships that taking time off from work to seek "well care", posed on participants co-workers.

Several participants felt that others had to “pick up the slack” or do “their jobs” and they didn’t want their co-workers to bear this burden. This finding was more specific to emerging adults working in full time jobs that were career oriented and related to their degrees as opposed to those who were working part time.

In summary, the overarching themes identified were presented from a framework common to the axial coding which situates themes within categories associated with an identified phenomenon. The phenomenon central to this study is how emerging adults frame the decision to use preventive health services. The associated categories were causal conditions, context, strategies and consequence. Within these categories were the overall themes of factors of independence, pre-established patterns of behavior, ACA impact, authoritative guidance, postponement, individual behaviors, inconvenience/loss, and confirmatin of current health status.

Chapter V

DISCUSSION

Overall emerging adults felt there was value in using preventive health services, however they tended to make the decision not to use them. This tendency existed even among those whose parents consistently modeled patterns of use over their lifespan. Similar to Anderson's model of health service utilization and in partial answer to the research question, "What influences emerging adults' preventive health service use?" emerging adults identified the influence of predisposing and enabling factors on preventive health service use. Among those predisposing factors, health beliefs and social modeling appear to have a level of influence in that emerging adults believe there is value in preventive health service use and have had a level of exposure to their use. However, in the transition to adulthood, these influences don't appear to be salient.

The emerging adults lack of adoption of preventive health service use, calls into question the role of self-efficacy as a predisposing factor. Although study participants were responsible for making their own health care decisions, most had been making these decisions for brief periods of time. A parent or guardian had been making these decisions for the bulk of the emerging adults life. Developing self efficacy primarily depends on performance attainment, mastery or achievement of a given behavior (Rosenstock et al., 1988). Within the study emerging adults expressed minimal experience using, and minimal knowledge of, preventive health services. This limited experience and knowledge could be indicative of low performance attainment and thus low self efficacy. Another potential indicator of low self-efficacy development is vicarious experience, the observation of successful or unsuccessful behaviors, and the second major factor in the development of self-efficacy (Rosenstock et al., 1988).

Among those emerging adults who stated this behavior was modeled the associated benefit of the behavior was not explored. It is unknown if they perceived the use of preventive health services by their parents as a success or failure. The outcome of the vicarious experience was not defined. A potential failure perception could exist if those who modeled the behavior were diagnosed with a chronic condition, although they may have used preventive health services regularly. In addition, chronic diseases tend to occur later in life, so it is possible that no assignment of success or failure was attributed to preventive health service use. The lack of an assigned outcome could also hinder the development of self efficacy.

Contrary to Hooker (1992), emerging adults didn't appear to take their health for granted. Recall from the literature review, that possible selves in the health domain for young adults tended to center around weight (Horneffer-Ginter, 2008). The health behaviors most frequently mentioned by emerging adults, eating healthy and exercise have direct implications on weight reaffirming the existence of possible selves in the health domain for this group. Markus and Nurius (1986) found that possible selves function as incentives for future behavior. Participants held beliefs that there was value in using preventive health services and they believed that their behaviors could influence their future health; this was contrary to Rosenstock (1988). According to the Health Belief Model, these beliefs would drive emerging adults towards health service use in an effort to avoid a poor health condition; however study findings do not support this behavior in reference to preventive health service use. Instead participants tended to primarily use illness or symptom related health services. Use of illness driven services demonstrate direct effort to avoid a poor health condition supporting the Health Belief Model. Recognition of the avoidance of a poor health condition is also more visible in the presence of illness. Preventive health service use does not immediately mitigate a problem, as chronic disease occurs over time.

When the threat of poor health conditions is not immediate, participants appeared to have greater self-efficacy to practice and control behaviors that would have an impact on their health. This finding is in line with Hoyle and Sherrill (2006), who proposed that possible selves do little to influence future behavior if the current behavior is already aligned with the future goal. In these situations feared possible selves are more salient. Emerging adults identify as having a positive health status and identified behaviors they were engaging in to maintain this status, so it appears that their health service use is mediated by feared possible selves. These possible selves manifest in the anxiety and/or fear that accompanies illness or symptoms of illness and drives emerging adults to seek care. Anderson's model captures this influence within illness level/need.

The Affordable Care Act presents as an enabling factor of influence amongst the study population. The ACA was passed in 2010, with the insurance mandate being implemented in 2014 thereby serving as an intervening condition. Goals of the act included improving access to health insurance and preventive health services. Emerging adults felt that the Affordable Care Act and its insurance mandate was a beneficial agent in improving access to health care and preventive health services. Economically, participants in the study did not need to obtain insurance through the ACA, as most were insured through their employers. Participants tended to believe that the ACA helped "other" people. Unlike their preventive health service use, obtaining health insurance had greater utility. Participants expressed a strong desire to avoid and were keenly aware of the monetary penalties associated with being uninsured. In response to the research question, "How has the Affordable Care Act helped or hindered preventive health service use?" emerging adults opted to obtain insurance, although they infrequently accessed health services, especially preventive health services. However, removing what is often

perceived as one of the major barriers to health care use, did not seem to modify the health care seeking behaviors of emerging adults.

Acquiring insurance was not routinely accompanied with the provision of knowledge or ability to access health care services. With the exception of those enrolled in the military, there was minimal guidance provided to emerging adults on when to seek preventive health services. Although those enrolled in the military also had limited understanding of preventive health services, through authoritative guidance they received these services more often. This could be attributed to the high degree of importance placed on the work of military personnel and the need to maintain their health. Other professions don't seem to regard employee health as highly as non-military participants didn't receive this guidance. This perspective is slowly being modified with increased attention being given to worksite wellness programs. The Center for Disease Control believes that worksites play a role in encouraging healthy behaviors and preventing chronic disease amongst employees. Ninety percent of emerging adults in this study were employed, indicating that they are connected to a resource, their employer, who could work to ensure the provision of preventive health services in a manner that would not require absence from work.

The transition to adulthood varies for each individual and there is no playbook to follow as the transition is made. Emerging adults appear to be greatly impacted by this transition and this transition produces what can be defined as "factors of independence". These factors include increased reliance on self and inexperience in dealing with common demands of adulthood. In addition to these factors, a lack of knowledge of preventive health services and limited exposure to preventive health service use, emerging adults frame the decision to use preventive health services as a loss.

Surprisingly emerging adults tended to associate the decision to use preventive health services with negative consequences instead of viewing the services as a beneficial confirmatory tool. This is evident in their views of the utilization of the services as an inconvenience. There were very few participants who felt they didn't sacrifice something in order to use preventive health services. Common sacrifices or inconveniences mentioned were losses of time, money and relationships. All of which appear to be limited commodities within this group.

In reference to Tversky and Kahneman (1981), a decision problem is defined by a "decision frame" or perception of the problem by the decision maker. Judgment and decision making theory posits that depending on the type of decision to be made people may engage in different decision making strategies. Anderson's model does not directly identify the decision frame as an integral influence in the decision to seek care. This finding was supported in the study as emerging adults seem to apply a deductive or deliberate decision making process when determining the use of health care services based on illness. Yet, they also apply heuristic processing, or dependency on rules of thumb or home remedies, to determine at what point to seek care.

As cited by Tversky and Kahneman (1981) a rational decision maker seeks the decision with the highest utility. Utility appears to be the primary answer to the first research question, "What influences emerging adults' preventive health service use?" Emerging adults frame preventive health services as a loss or risk which is greatly influenced by the transition to adulthood. This decision frame seems to mimic "preference reversal" in that preventive health service use is viewed almost as risk taking versus risk aversion. Risk taking in that among emerging adults use is associated with the risks of losing time, money and relationships instead of the aversion of the risk of developing chronic disease.

In response to the second research question, “What decision making processes do emerging adults engage in relative to preventive health service use?” emerging adults appear to engage in deliberate decision making relative to preventive health service use. Wolff and Crockett (2011) identified five steps to deliberate decision making, two of which are; evaluation of the value of each consequence (gains/losses) and determine the probability of each consequence. Emerging adults feel as if preventive health service use will only confirm their existing health status perceptions resulting in no visible gain. Instead they choose to allocate their time towards those events that offer a greater return on investment such as work and school. Employing deliberate decision making to these activities clearly results in a gain and/or specific consequence.

Finally in testing the emergent theory, it was demonstrated that preventive health service use and its associated benefits are perceived differently by emerging adults as compared to older adults. Older adults tended to be more adapted to dealing with the demands of adulthood and had more experience in being self-reliant. They viewed their health as greater priority than factors of independence. Older adults, are typically at increased risk for chronic disease and have more possible selves in the health domain, thus they tend to seek preventive health service use and frame it as a beneficial health service. They attribute more risk to the disuse of these services.

The emerging substantive theory generated from this study can best be captured as “Health Return on Investment” or HROI. HROI signifies that emerging adults expect a certain level of return or value when they are exerting personal resources. They frame the decision to use preventive health services as a loss in the presence and absence of use. They are more apt to use health services that they feel offer a clear tangible return on investment, such as illness or acute care. In the absence of tangible treatments or services, they will avoid using care.

HROI holds similarities to Anderson’s model in that it identifies variable of influence at multiple levels including societal, system and individual. Anderson and Newman (1973) identify illness level/need as an individual determinant of health service use. Unlike illness level/need, preventive health service use is not associated with the perception of illness or immediate need so this factor will not exist in a model of health service utilization specific to preventive health services. The cognitive decision frame should be added as a determinant of use. Figure 7 identifies variables that are consistent with categories in Anderson’s model.

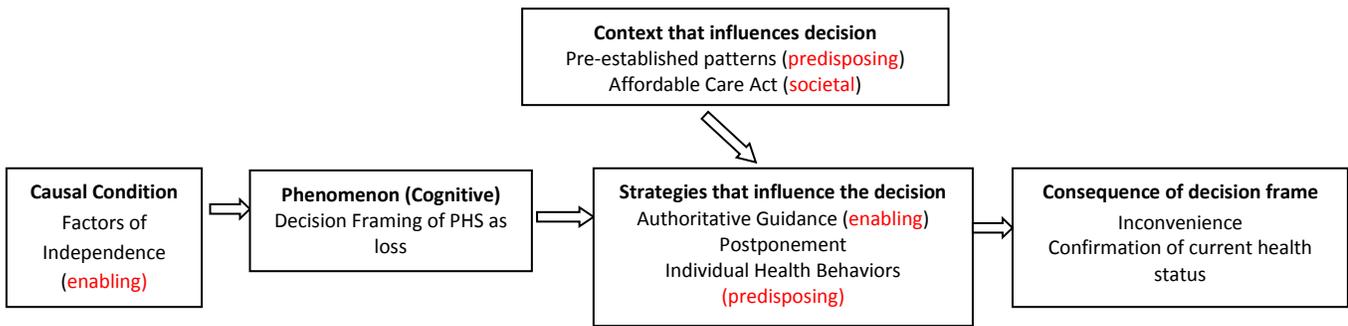


Figure 7. Constructs with similarities to Anderson’s Model

Figure 8 proposes a modification to Anderson’s model specific to preventive health service utilization and emerging adults. The model excludes illness/need and includes decision framing.

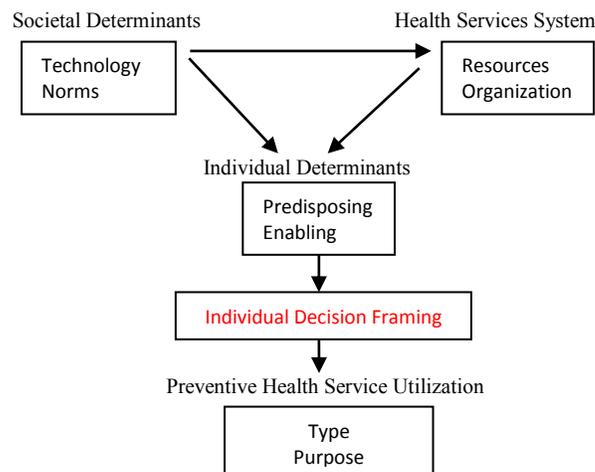


Figure 8. Proposed Model of Preventive Health Service Utilization

The decision frame around preventive health services use is influenced by subject utility. Society presents preventive health service use as a benefit and gain, however emerging adults, highly influenced by heuristic decision making frame preventive health services in reverse. They associate greater loss than value with preventive health service use. As Arnett (2007) identified, this population is very experimental in nature and tends to forgo the adoption of long term adult roles as it transitions into adulthood. All emerging adults in this study felt that health care decision making was a role of adulthood, this finding combined with findings from Arnett further provide rationale as to why preventive health service use is low within this population.

Emerging adult decisions to use preventive health services can be altered when authoritative guidance is in place. An authoritative figure such as a parent or employer can exert influence that will cause the emerging adult to use preventive health services. It is unclear, if this use changes the decision frame or simply results in use of services by the emerging adult. The decision frame may also be altered if societal factors such as use of technology guided medicine, or telemedicine, is increased. Telemedicine is distance medicine using audio and video equipment. Telemedicine is defined by Medicaid as a “cost-effective alternative to the more traditional face-to-face way of providing medical care”.

This study adds to the literature in a number of ways. First it adds to the literature on emerging adults, using a grounded theory approach to identify critical factors of influence in their decisions to use preventive health services. This information is crucial in designing strategies to reduce chronic disease given the increase in the number of insured within this population. Secondly it adds to the literature on health service utilization, by proposing a model of utilization specific to preventive health services, a type of health service where impact is seen

distally. Currently the prominent model, Anderson's, is illness based and identifies the provision of services with short term outcomes.

Limitations

This study had several limitations based on the demographics of the population. To start the study was limited by the age of participants, as most were older emerging adults. The mean age of the study sample was 24 years old, emerging adulthood spans the ages of 19-26, responses could differ amongst a younger sample. Study limitations also included potential gender bias as the majority of participants were female. Chronic disease occurs at higher rates among males, therefore it is essential to chronic disease reduction to obtain the male perspective. Insurance type was also a potentially limiting factor in the study as 65% of participants were afforded insurance coverage through places of employment. These participants may have had a higher degree of knowledge due to resources offered from the employer.

Although participants resided in places other than Sedgwick County, all participants resided in Kansas and the political climate in Kansas could have an impact on preventive health service use. The political climate in Kansas is anti-government regulation and as many participants expressed, they only obtained insurance to avoid penalty. This could indicate an underlying unwillingness to use services thought to be supported by the federal government. Additional limitations include potential response bias due to knowledge differences as participants had varying degrees of understanding relative to preventive health services indicating a potential difference in overall health literacy among participants.

Future Implications

A grounded theory approach was used to identify an emerging theory of what influences emerging adult preventive health service use. A key tenant of grounded theory is that the

substantive level theory that emerges be tested. Future quantitative research should be conducted to determine if the findings in this study apply to emerging adults. Although not a key question of this study, findings revealed that emerging adults could benefit from an increased knowledge of health insurance. Future studies could seek to explore health insurance literacy among this group.

Eighty-six percent of health care dollars are spent on chronic diseases such as heart disease, stroke, cancer, diabetes and arthritis (National Center for Chronic Disease Prevention, 2015). Engaging emerging adults in routine preventive health service use would increase the identification of risk factors for chronic disease and opportunities to prevent the onset of disease. It would be of benefit to public health and health care to explore ways to increase the perceived value of preventive health services amongst the emerging adult population. Incorporating strategies that minimize time and monetary losses, such as increased use of worksite wellness programs at places that employ large numbers of emerging adults could create a different decision frame. These programs would need to not only offer preventive health services such as blood pressure checks and routine physicals; they would need to provide enhanced education. This education would be aimed at improving emerging adults understanding of the services offered, especially in relation to chronic disease since emerging adults are typically at lower risk for a chronic disease diagnosis.

Emerging adults also identified difficulties in balancing the demands of independence, leading to issues of self efficacy and their ability to use preventive health services. This should be explored further along with potential cultural influence and their relationship to home remedies . Finally, the ACA improved access to insurance which has been shown to improve access to healthcare services. The act even removes barriers to preventive health care use by

eliminating associated copays, however emerging adults lacked knowledge of these provisions which calls into question their health insurance literacy. The Agency for Healthcare Research and Quality defines health insurance literacy as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions”. Health insurance literacy should be explored among a broad sample of emerging adults to identify the extent in which they may have difficulties understanding and utilizing a tool that is intended to facilitate preventive health service use.

Conclusion

Exploring preventive health service use among emerging adults offers a unique opportunity to impact the loss of life and economic cost caused by chronic disease, the number one cause of death in the U.S. according to Healthy People 2020. An estimated 2.7 million emerging adults will acquire insurance based on the Affordable Care Act (Collins, 2010), yet the provision of insurance will only go so far in minimizing the public health threat that chronic disease poses. Improvements need to occur both socially and systematically to fill the gaps in learning that appear to be present amongst emerging adults relative to preventive health service use.

Finally, emerging adults need more experience balancing multiple demands and they need to be given greater responsibilities prior to living independently. They should also become more involved in their health care while they are on their parents insurance by participating in health decision making. These skills will enable them to juggle the demands of adulthood more easily. The early identification of chronic disease minimizes health care cost, prolongs life and will be heavily reliant on increases in preventive health service use among emerging adults. Increasing this use will require strategies at the individual and systems level that will alter the

emerging adult decision frame around preventive health services. Preventive health service use among emerging adults requires a different framework, if this change is to take place.

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APPENDICES

APPENDIX - A

Demographic Survey

Instructions: Please answer the following questions to the best of your ability. Do not write your name on this sheet.
–Thank you!

1. **How old are you?** _____ years old

2. **What is your employment status?**
 - a. I am self-employed
 - b. I am unemployed
 - c. I am employed full-time
 - d. I am unable to work due to disability or other condition
 - e. I am employed part-time

3. **Are you enrolled at a college/university at least part-time?**
 - a. Yes
 - b. No

4. **What is the highest level of education that you have completed?**
 - a. Less than high school diploma
 - b. High School Diploma/GED
 - c. Some College
 - d. Bachelor's Degree
 - e. Associate's Degree
 - f. Master's Degree
 - g. Professional Degree (Ph.D.,M.D., J.D)

5. **How would you describe your race/ethnicity?**
 - a. White/Caucasian
 - b. Black/African American
 - c. Asian American
 - d. American Indian or Alaska Native
 - e. Arab American
 - f. Native Hawaiian or Pacific Islander
 - g. Multi-Racial
 - h. Hispanic/Latino
 - i. Other: _____

6. **Is English the main language spoken in your home?** a. Yes b. No

7. **What is your main source of health coverage?**
 - a. I do not have health coverage
 - b. Health insurance from my job
 - c. Health insurance that my spouse's job provides
 - d. Medicaid
 - e. Medicare
 - f. State Insurance
 - g. TRICARE or military health insurance
 - h. Other: _____

8. **What category best describes your annual household income? If you are a full-time college student, list your parents' income.**
 - a. Less than \$24,999
 - b. Between \$25,000 and \$49,999
 - c. Between \$50,000 and \$79,999
 - d. More than \$80,000

- 9. What is your marital status?**
- a. Single, Never Married
 - b. Married or committed domestic partnership
 - c. Divorced/Separated
 - d. Widowed
- 10. What kind of place do you USUALLY go to when you need routine or preventive care, such as a physical examination or check-up** Yes
- a. I don't usually get preventive care anywhere
 - b. Community Clinic or Health Center (Ex. Gracemed)
 - c. My primary care doctor's office
 - d. Hospital emergency room
 - e. Hospital outpatient department
 - f. I don't go to one place most often
- 11. If you don't have a usual source of preventive health care, why not?**
- a. I don't need a doctor/haven't had any problems
 - b. I don't like/trust/believe in doctors
 - c. I don't know where to go
 - d. Previous doctor is not available/moved
 - e. Too expensive/no insurance/cost
 - f. Speak a different language
 - g. No care available/care too far away/not convenient
 - h. Put it off/didn't get around to it
 - i. N/A
- 12. How worried are you right now about your future health?**
- a. Very Worried
 - b. Moderately worried
 - c. Not too worried
 - d. Not worried at all
 - e. Refused
 - f. Don't know
- 13. How often do you think about how your current health behaviors will affect your future health?**
- a. Very often
 - b. Often
 - c. Not very often
 - d. Never
- 14. Do you feel using preventive health services will reduce your risk of developing chronic disease (ex. Stroke, heart attack, cancer) in the future?**
- a. Yes
 - b. No
 - c. Don't Know/Unsure
- 15. Do you feel that being able to make health decisions is a skill required for adulthood?**
- a. Yes
 - b. No
 - c. Don't know/Unsure

APPENDIX - B

Interview Questions and Script

Hello my name is J'Vonnah Maryman and I am a graduate student at Wichita State University. I want to thank you for allowing me to speak with you. Before we get started I need to make sure you know what you are being asked to do and why. So I will take a moment to read some information to you. At any time feel free to ask questions.

Read Consent form. After verbal consent start recording.

You have been selected to participate in part because you are receiving insurance through the Affordable Care Act or Obamacare as it is commonly called.

Warm Up Questions

Q1. What are your general thoughts about Obamacare?

Q2. What have been your experiences with using insurance?

Affordable Care Act

- 3) What motivated you to obtain insurance?
 - a. How did you learn about enrollment?
 - b. Before enrolling in insurance how did you pay for your medical care?
- 4) Describe your experience enrolling in insurance.
 - a. Where did you enroll?
 - b. Did you need assistance to enroll? If so, what did this assistance involve?
 - c. How confident were you in your ability to choose a plan?
- 5) How did you plan to pay for your insurance plan?
 - a. What did you know about rebates and subsidies?
- 6) How did you determine the type of insurance plan to choose?
 - a. Are you usually responsible for choosing health insurance or a health plan for yourself?
 - b.

Preventive Health Care

The next group of questions will talk more about how you use healthcare.

Q7) How would you describe your health/health status?

Tell me about your last doctor's visit?

Probe: How did you determine you needed to go?

How often have you gone to the doctor in the past 12 months?

: What types of services did you receive?

Probe: What influences your decisions to seek care? (Think social, environment, etc.)

Q8) What is your understanding of preventive care?

Give them definition with examples: Preventive care includes health services like screenings, check-ups, and patient counseling that are used to prevent illnesses, disease, and other health problems, or to detect illness at an early stage when treatment is likely to work best. Getting recommended preventive services and making healthy lifestyle choices are key steps to good health and well-being.

9. Tell me about how you or family members sought out healthcare when you were growing up?

Probe: do you continue this now or what has changed?

10) In what ways has access to insurance influenced your preventive health care use?

- a. Where did you go for care? What type of care do you use?
- b. Do you have a consistent place you go for medical care?
- c. How is your current use of preventive health care different from when you did not have an insurance plan?

11) What role does insurance play in your decision to seek care?

Follow-up: If you are newly insured, how familiar are you with insurance terminology?

Emerging Adult:

11) How would you define adulthood?

Do you feel that health care decision making is an adult Role?

APPENDIX – C

Codebook

| Open Code Phase 1 – gray items (Based on descriptive, themes, frequency) | Phase 2 Open Coding (Development of subcategories and reorganization of Phase 1 codes) | Axial Code (What's the phenomena or incident?) | Selective Code Create the Storyline (Narrative should explain phenomenon) |
|---|--|---|---|
| ability-knowledge to make health care decisions | ability-knowledge to make health care decisions need for assistance in obtaining knowledge Acquiring Knowledge (experiences, technology, personal assistance) Technology as a valuable resource tool /eased with customer service support and high usability of websites | ability-knowledge to make health care decisions | |
| understanding of preventive health services | | | |
| understanding-knowledge of insurance | lack of understanding of ACA | | |
| | Thoughts on Obama care | | |
| | insurance terminology understanding | | |
| | preferred way to increase knowledge of insurance | | |
| | Positive perception of Obama care | | |
| benefits of insurance | Reducing financial stress and mental stress economic factors (money, cost, cost comparison) Opens the door to health services Benefits of insurance (ex. across all illness types) | Benefits of Insurance | |
| | insurance as a facilitator (ex. ACA, removes barriers to care) | | |
| cost benefit | Limited understanding/value of PHS economic factors (money, cost, cost comparison) Other barriers competing priorities (weighing decisions) too much time commitment/time management fear of repercussion (penalties, fines, authoritative requirements) | Return on Investment/Subject Utility Deciding to seek care | |
| | too much time commitment/time management | | |

| | | | |
|--|---|--|-----------------------------------|
| degree of concern | Perceptions of illness/severity (self-defined referral points (peoples stages at which to seek care)awkwardness in seeking care when healthy Not a priority for emerging | Social Desirability (stigma associated with care when not sick) Deciding to seek care | Decision Framing of PHS as a loss |
| types of services received | chronic diseases see doc more frequently | Social Modeling | |
| | frequency of visits | | |
| | putting it off | | |
| preventive care history | habits or learned patterns of behavior, use of home remedies Prevention Habits (social norms) | Social Modeling | |
| | dependence on home remedies | | |
| description of health | No one seen as ideal state of healthy | Health Status | |
| | Behavioral Preventive Health Measures (eating healthy, going to gym, etc.) | | |
| | Recognition of health status | | |
| experiences with insurance | enrollment process | Insurance Process | |
| | ease of enrollment process (Nodes) | | |
| | economic factors (money, cost, cost comparison) | | |
| explanation of care | degree of understanding | Knowledge/Ability | |
| gaining healthcare experience | Variations in care seeking behaviors | | |
| illness-symptom driven care history | Understanding/Knowledge of Insurance (ex. costs, terminology, effect on finances) Lack of "Catering" to their needs | Deciding to Seek Care | |
| | Unsure of preventive health services | | |
| | Procrastination- putting off seeing doctor till last minute | | |
| | /social desirability(ex. stigma associated with medical care, importance of pap, boy who cries wolf) | | |
| making decisions based on heuristics | Limited accountability or decision making | Decision Making Heuristics | |
| | value by association | | |
| | Experiences with insurance (difficulty with insurance (barrier)) | | |
| processing the decision based on rationality | Planned transition of insurance (planning for the future) | Decision Making processes (Heuristics, Rational) | |
| | Gaining healthcare experience | | |
| unable to afford insurance without rebates | | | |
| influence on when to seek care | relying on parents-others | | |

| | | | |
|------------------------------|--|--|--|
| | source of care | Value Assignment | |
| | Pull and push factors | | |
| | Consideration of needs | | |
| | Positive experiences with govt. insurance (Medicare, Medicaid, Tricare) | | |
| | treatment experience | | |
| | lack of explanation of care/communication | | |
| | previous treatment experiences as barrier | | |
| | Doctors seen as inconvenience | | |
| what it means to be an adult | Transition to adulthood (degree of independence, self-reliance) Reliability on self | Transition to Adulthood Factors of Independence | |
| | reliance on self | | |
| | limited experience with independence/sense of security | | |

Axial coding • Identifying core category (“Core phenomenon”) and related categories • Examining the features and dimensions of categories
 Causal conditions → Core phenomenon → Strategies → Intervening conditions → Consequence (Creswell, 2013, p. 86)
 Theoretical or Selective coding • Connecting the core category and related categories to create a storyline • The narrative (proposition/theory) should explain a phenomenon

APPENDIX –D

CONSENT FORM



Consent Form (To be read and verbal consent obtained)

Purpose: You are invited to participate in a study that seeks to explore perceptions of the Affordable Care Act (ACA). The goal of the study is to gain information from young adult ACA enrollees in order to understand their experiences with the ACA and health service use.

Participant Selection: You have been selected as a possible participant in this study because you are a young adult age 18-26. The researchers hope to speak with 20 young adult ACA enrollees of Kansas through a series of interviews and/or focus groups.

Explanation of Procedures: You will be asked to participate in an interview and/or focus group session lasting no longer than 90 minutes. You will be asked to respond to questions relating to your experiences with the ACA. For example you will be asked, “Where did you go to enroll in the ACA?” All responses from the group conversation and interviews will be audio recorded.

Discomfort/Risks: Because you will be participating in an individual interview and/or group setting, there is some minimal risk/discomfort associated with this study. There are potential risks that you may be uncomfortable responding to questions. You have the right to refrain from answering questions that you do not feel comfortable answering and you may stop participation in the focus group at any time.

Benefits: Information obtained from this project will be included as part of a written dissertation.

Confidentiality: Every effort will be made to keep your study-related information confidential. All information discussed during an individual interview is confidential and only to be shared with project investigators. All information discussed during the focus group is confidential to the group and participants are not to discuss what they hear with others outside of the group. However, in order to make sure the study is done properly and safely there may be circumstances where this information must be released. By completing this study, you are giving the research team permission to share information about you with the following groups:

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Wichita State University Institutional Review Board;

The researchers may publish the results of the study. If they do, they will only discuss group results. Your name will not be used in any publication or presentation about the study. Tape recordings will be erased once transcribed. Transcriptions will be secured in an electronically secured file by the investigators.

Refusal/Withdraw: Participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your future relations with Wichita State University and/or the Psychology Department. If you agree to participate in this study, you are free to withdraw from the study at any time without penalty.

Contact: If you have questions about this research you can contact me, Dr. Rhonda Lewis at 978-3695 or email rhonda.lewis@wichita.edu or J’Vonnah Maryman at 316-660-7183 or marymanjv@gmail.com. If you have any questions pertaining to your rights as a research subject, or about a research related injury, you can contact The Office of Research and Technology Transfer at Wichita State University, Wichita, Ks, 67260-0007, telephone 978-3285.

You are under no obligation to participate in this study. Remaining in the interview or group after the conclusion of the reading of the consent form indicates you have voluntarily decided to participate. Participating in this focus group indicates that:

- You have read (or someone has read to you) the information provided above,
- You are aware that this is a research study,
- You have had the opportunity to ask questions and have had them answered to your satisfaction, and
- You have voluntarily decided to participate.

You may keep this information sheet. This concludes the reading of the consent form. At this time, those wishing to not participate may leave.