This study investigated the relationship between the variables of job satisfaction and servant leadership among nurses from the Millennial Generation, Generation X, and the Baby Boomer generation in the AMITA Health system in Illinois. This study also sought to understand the differences in internal and external measures of job satisfaction and perceptions of servant leadership by generational groups. Job satisfaction is a crucial variable in the healthcare industry because the nursing profession reports high rates of staff turnover. Servant leadership theory has been offered as a leadership and managerial approach to improve job satisfaction amongst nursing staff. The study found that servant leadership was positively correlated with intrinsic and extrinsic measures of job satisfaction across all generational cohorts. The results of the one-way ANOVA analysis did not find significant differences with measures of intrinsic job satisfaction. However, the one-way ANOVA analysis indicated significant differences with measures of extrinsic job satisfaction and perception of servant leadership among all generational cohorts. Given the high turnover rates in the nursing profession, this study provides valuable insights on levels of job satisfaction and servant leadership as reported by nurses from the Millennial generation, Generation X, and the Baby Boomer generation.

Keywords: Leadership, service, job satisfaction, nurses.

Introduction

This paper explores the relationship between the variable of servant leadership and the variable of job satisfaction among nurses in the context of a nonprofit organization, the AMITA Health system in the state of Illinois. According to the 2021 edition of the Conference Board Job Satisfaction survey, 56.9% of U.S. employees experience satisfaction with their jobs. Such results have been repeated for eight consecutive years. In 2013 the percentage of workers satisfied with their jobs was 47.4 percent. This was below the historical level of 61.1 percent in 1987 (Cheng, Kan, Levanon, and Ray, 2014). According to Bolton (2011) such low levels of job satisfaction are evident in nonprofit
organizations. Researchers at the Conference Board updated the annual Job Satisfaction survey in 2019 and found an increase in employee satisfaction levels, climbing to a higher 56.3 percent rate. However, the researchers clarified in the 2020 update that the COVID-19 pandemic is likely to significantly change the trajectory of job satisfaction levels in the United States (Erickson, et al., 2020). While research has been conducted to explore job satisfaction in the nonprofit sector, such research has not been conducted as it relates to the servant leadership style and job satisfaction in the context of the AMITA Health network in the state of Illinois. Studies on job satisfaction within the healthcare industry suggest that job dissatisfaction is related to staff turnover in healthcare organizations (Hayes et al. 2006).

Statement of the Problem

The concept of job satisfaction is an important issue for both organizations and employers. According to Cavanagh (1992) job satisfaction is of key relevance for nurses for various reasons. First, for many employees the nursing profession is an intrinsic value of work; it is a career path to be valued in itself. Second, according to research on satisfaction amongst nurses, there is a relationship between job satisfaction and patient care. In other words, job satisfaction affects nursing performance (Blegen & Muller, 1987). Third, the issue of staff turnover remains of key importance in the healthcare industry. Cavanagh (1992) suggests that there is a relationship between job satisfaction and employee intention to leave the workplace. High rates of job satisfaction in healthcare organizations reduce the likelihood of nursing staff turnover. Kalisch, et al. (2010) stated that nursing shortages are one of the main problems in healthcare organizations.

According to the latest U.S. Bureau of Labor Statistics (BLS) report, the job outlook growth from 2016 to 2026 has been projected as 15% which is double the rate of the average growth for all occupations. Job satisfaction is a determining concept in the culture of healthcare industries because of its rapid growth. According to the BLS report, such growth is taking place because of an increased emphasis on preventive care; growing rates of chronic conditions; and growing demand for healthcare services from the Baby Boomer population who lead to more active and longer lives. Another aspect of the problem is the attrition rate observed in the nursing profession. It has been reported that 13% of nurses consider leaving this profession within the first year in the workplace (Kovner et al., 2014). Both the projected job outlook growth rate of 15% during the upcoming years and the steady attrition rate in the nursing profession highlights the need of identifying what constructs within healthcare organizations are related to job satisfaction.

Another important factor of job satisfaction is the leadership behaviors adopted by managers in the healthcare industry. The relationship between both constructs, in the context of nursing teams, has not been extensively studied. According to Henning (2016), studies have been conducted recently to understand the relationship between job
satisfaction and leadership styles in nonprofits organizations. However, such relationship has not been studied in the context of the healthcare industries with nursing staff in the state of Illinois. An exploration of the Journal of Advanced Nursing, the Nursing and Allied Health Database, The Nursing Management Journal, and the Nursing Center Reference Plus Database did not yield results showing studies that focused on the relationship between servant leadership behaviors and levels of job satisfaction within the context of nursing teams in non-profit hospitals.

The construct of job satisfaction has been studied among healthcare professionals considering differences among generational groups (Carley, 2008; Chan, 2005; Gordon, 2017). However, it is important to build on such research and explore the specific relationship between job satisfaction and the construct of servant leadership.

Concerning this study, it is crucial to understand how nurses within the Millennial generation, the Generation X, and the Baby Boomer generation relate to the concepts of job satisfaction and how they perceive leadership in the organization. The Pew Research Center (2018) states that Millennials are the largest generation in the U.S. labor force (35%) while the Generation X represents the second largest group (33%). The reports noted that in 2017 the Generation X labor force was down from its peak of 54 million in 2008. While both generations combined represent most of the working force in the U.S., it is important to understand specific insights, from these generational groups about job satisfaction and perceptions of leadership in order to lower the turnover rate and nurture the welfare of the nursing staff in healthcare organizations.

According to a recent Health Affairs report, the Baby Boomer generation was the largest segment of the nursing workforce from 1981 to 2012 (Auerbach, et al., 2018). However, members of this cohort are retiring at a fast pace which will lead to nurse shortages in the upcoming years. The Baby Boomers retirement rate will cause a projected workforce reduction to 1.3 percent per year from 2015 to 2030. This means that the retirement of the Baby Boomers will dampen the workforce rates of past decades.

According to an interview with Mike Dominguez (2019), who serves as a nursing leader at AMITA Health, the system expanded its operation by merging with the Presence Health system during the last quarter of 2019. This means that the AMITA Health system tripled its locations to 19 healthcare facilities and doubled their doctor and nursing staff. Such expansion makes the AMITA Health system a suitable context for a quantitative study that will explore the relationship between servant leadership (Greenleaf, 2002) and job satisfaction (Rounds et al., 1981).

**Statement of Purpose**

Primarily, the purpose of this research project was to assess the relationship between the variables of job satisfaction and servant leadership within the following
generational cohorts: The Millennial, the Generation X, and the Baby Boomer generations. Secondarily, this study sought to understand the differences in the internal and external measures of job satisfaction and perceptions of servant leadership among the stated generational groups who work at the AMITA Health network in Illinois.

**Definition of Terms**

Servant leadership is a leadership style that empowers followers to accomplish shared objectives by empowering individuals to achieve personal development and collaborative work that is consistent with the health and the welfare of the followers. Servant leadership is best understood as a set of practices that put the interest of those being led over the self-interest of the leader. (Greenleaf, 1977; Laub, 1999; Yukl, 2013).

For the purpose of this study, job satisfaction will be understood as the employee’s appraisal of the correspondence between his or her individual abilities and work personality and the ability requirements and work reinforcers found in the workplace (Weiss, Dawis, & England, 1967; Neuman, 1997).

**Literature Review**

This section will explore the theoretical foundations of the variables of servant leadership and job satisfaction. This section will also identify research previously performed regarding the hypothesized relationship between the two constructs. Finally, the literature review will inform how the constructs of job satisfaction and servant leadership have been previously studied within the generational groups of the Millennial generation, Generation X, and the Baby Boomer generation.

**Servant Leadership**

Servant leadership theory is recognized as a theory that advances specific behaviors, characteristics, and organizational outcomes (Northouse, 2016; Yukl, 2013). The original proponent of servant leadership theory is Robert Greenleaf (Greenleaf, 1996). According to Yukl (2013), Greenleaf proposed that service to followers is the primary responsibility of leaders. Servant leadership in the workplace is about helping employees to accomplish shared objectives by empowering individuals to achieve personal development and collaborative work that is consistent with the health and the welfare of the followers. Servant leadership theory has been the subject of little empirical research in established peer-reviewed journals; most of the content found in academic and non-academic publications has been prescriptive, focusing on how servant leadership should be instead of focusing on how the main constructs of servant leadership operate in the leader-follower dynamic (Northouse, 2016). However, over the last ten years, multiple publications have tested and validated the fundamental assumptions of servant leadership theory (Northouse, 2016; Parris & Peachey, 2013).
Parris and Peachey (2013) stated that servant leadership theory belongs under the category of ethical leadership because its main constructs relate to virtue, morality, and ethics. Servant leadership theory also draws from an ethical theoretical framework that connects the person of the leader to high self-awareness, cognitive moral development, and a moral identity likely to resist the temptation to misuse power and abuse others (Yukl, 2013). Such ideas are built on the concept of personal moral development as proposed by Lawrence Kohlberg (Wright, 1995). Within the servant leadership framework, the highest motivation of leadership is to fulfill internalized values and moral principles. The concept of self-identity is an important component in servant leadership theory. According to Sendjaya and Sarros (2002) Greenleaf understood servant leaders as characterized by their desire to serve, serve first (what they do), their self-identity (who they are), and from their identity, their choice of being and doing their vocation to lead. In other words, servant leadership theory is not solely built on extrinsic, observable traits and behaviors, but also on the intrinsic qualities of the leader.

Because of its emphasis on intrinsic and moral values, servant leadership has been difficult to operationalize in empirical research studies. However, according to Parris and Peachey (2013) researchers have conducted three literature reviews to identify the constructs that have been operationalized in empirical studies. Such reviews have identified operationalized attributes of servant leadership that reflected different conceptual interpretations of the theory. All of the reviews convey the foundational concept of servant leadership as internal motivation to serve others (Russell & Stone, 2002; Van Dierendonck, 2011; Wheeler, 2006). However, a major challenge to the aforementioned literature reviews is that they lack a systematic process similar to that of an empirical research study. Parris and Peachey (2013) conducted a systematic literature review (SLR) that features methodologies that are replicable, systematic, and the findings are reported with the same procedures as empirical studies. The inclusion and exclusion criteria for the SLR encompassed identifying all articles with servant leadership as the main topic of the study. The specifications for an article to be included were that the article had to be empirical in nature and examine servant leadership theory either quantitatively or qualitatively. The data was analyzed using the Matrix Method (Garrad, 1999) to organize and abstract the following information: a) A definition of servant leadership; b) In which context did the empirical study took place; c) How was the theory tested; d) what were the results of the test. Parris and Peachey (2013) concluded that servant leadership is being studied globally from a quantitative and qualitative perspective. They categorized their conclusions as “strong evidence” or “moderate” evidence-based on the empirical research validity.

Overall, the researchers assessed that servant leadership theory is applicable across cultures and organizational contexts and that the constructs of servant leadership with strong empirical support relate to the dimensions of team effectiveness, followers’ wellbeing, and servant leadership attributes. It is important to note that the SLR
identified 39 studies of servant leadership in organizational settings. According to Parris and Peachy (2013), this survey of the literature points to the necessity of testing servant leadership with empirical methodology in organizational leadership contexts. The conclusions by Parris and Peachy (2013) concur with Yukl (2013) and Northouse (2013) as he stated that research on the consequences of servant leadership is limited but that the studies that have been performed recently found positive outcomes such as commitment to the workplace, self-efficiency, and citizenship behavior.

Relevant to this proposal, Winston and Fields (2015) performed a study to identify and measure the essential behaviors of servant leaders. Their goal was to clarify the nature of how servant leadership is established and transmitted within an organization and to identify the unique actions by a leader essential to establish servant leadership. The study yielded the identification of ten leadership behaviors essential to servant leadership (Winston & Fields, 2015, p. 427). This is the basis for the one-factor servant leadership scale which will be used in this study.

The study by Winston and Fields (2015) advances Greenleaf’s concept that the purpose of servant leadership is the growth of followers and that leaders put the interest of followers over the interest of the leader. Greenleaf (1977) introduced a definition of servant leadership that included the concept of followers becoming healthier and more autonomous. It appears that the best method to define servant leadership theory is to adopt a multi-dimensional approach that considers the original constructs posited by Greenleaf (1977) and includes new conceptualizations set forth as the theory is being studied and tested with recent empirical research.

**Job Satisfaction**

There is not a single working definition of job satisfaction in the literature and yet different conceptualizations have been offered by scholars. Locke (1990) offered a working definition that conveyed the idea that job satisfaction is a pleasurable state that results from a personal evaluation of one’s own job.

Locke, E. (1969) also referred to the link between the individual’s expectations and the reinforcers found in the work environment. Cavanagh (1992) stated that while earlier definitions are helpful, they don’t consider the relationship between intrinsic and extrinsic facets of the variable of job satisfaction. For example, some conceptualizations highlight the employee’s personality and expectations but neglect to consider the relationship between extrinsic factors such as salary or the leadership style of the supervisors. Such is the conceptualization set forth by Pool (1997) which states that job satisfaction is an attitude that individuals maintain about their jobs, and that this attitude is developed from their perceptions of the job.
Another important concept involved in the construct of job satisfaction is that of differences perspective. This position argues that job satisfaction is the result of the nature of the jobs that people perform in the workplace. According to Cavanagh (1992) this concept assumes that certain characteristics in the workplace are causally related to job satisfaction. For example, a steady yearly salary increase would result in increased levels of job satisfaction among employees. Mardanov et al. (2007) stated that a major goal of studying job satisfaction is to better understand the different variables that impact job satisfaction.

Cranny et al. (1992) suggested that job satisfaction is an affective (emotional) reaction to the individual’s job, which results from between actual outcomes and one’s desires and expectations. Cranny et al., (1992) explained that in the literature it is prevalent to observe the concept of satisfaction closely related to the concept of the individual’s attitude. In other words, satisfaction is equated with the employee’s attitudes towards the job environment. Weiss (2002) performed a literature review of the concept of job satisfaction and concluded that while satisfaction has been defined in terms of the affective experiences of the followers, a better research approach would be to separate the constructs of evaluative judgments, beliefs, and affective experiences about the job. Separation of the constructs can produce a better criterion prediction than affective perceptions of job satisfaction by itself.

Another component of the construct of job satisfaction is the issue of organizational structure. Gaertner and Robinson (1999) studied three prevalent views of organizational determinants of job satisfaction in empirical studies. The results indicated that the view that organizational determinants such as peer support, workload, autonomy, and opportunities for career advancement had an effect on job satisfaction evidenced moderate to strong support.

It is apparent that a common view adopted by researchers is that job satisfaction is a tri-dimensional construct that encompasses the concepts of affection, attitudes, and organizational structure. Weiss (2002) offers the critique that the major problem with the tri-dimensional model is that while job satisfaction may be considered as an attitude, attitude should not be considered as an affective reaction, and that “evaluation is not synonymous with affect” (Weiss, 2002, p. 175). Instead, according to Weiss (2002), attitude should be considered as evaluation toward the attitudinal object. Weiss (2002) agrees with Brayfield and Crockett (1955) regarding the concept that, in empirical studies, the most prudent approach to defining the variable of job satisfaction is to “stick close to the operations” (Brayfield and Crockett, 1995, p. 397). Researchers are able to measure values of job satisfaction by operationalizing intrinsic and extrinsic aspects of job satisfaction in the workplace. Weiss (2002) warns job satisfaction scales may often be phrased as if they are evaluating affective perceptions, and yet the
researcher must be aware that, in fact, “evaluation is the essential construct being measured” (Brayfield and Crockett, p. 1995 176).

Another important precedent to the theoretical foundations of the variable of job satisfaction is found in the research studies performed at The Work Adjustment Project (Weiss, Dawis, and England, 1967) which gave birth to the Theory of Work Adjustment (TWA). The TWA explores the relationship between the work personality of the individual and the work environment as the main reason for outcomes in work adjustment. Scholars have regarded the TWA as a highly validated theory in social studies (Eggerth, 2008). Within the framework of the TWA, work is understood as a reciprocal process between the employee and the work environment in which individuals are fulfilling the requirements of the workplace while receiving a variety of social, financial, and psychological benefits (Dawis and Lofquist, 1984).

The TWA serves as a helpful framework to understand job satisfaction because its theoretical framework uses the concept of correspondence, or lack of it, between the work personality of the individual employee and the reinforcers found in the work environment as the main explanations for work adjustment outcomes such as satisfactoriness, satisfaction, and tenure (Weiss, Dawis, and England, 1967). The TWA offers researchers additional insights into the concept of job satisfaction as it departs from the tri-dimensional framework of attitude, affection, and work determinants, and sees the concept of correspondence as a predictor of adjustment and more specifically understand adjustment as a precedent for job satisfaction. According to Neuman (1997), job satisfaction is understood as a correspondence between the employee’s abilities and the ability requirements of the workplace. The Theory of Work Adjustment became the theoretical precedent to the Minnesota Satisfaction Questionnaire (MSQ). The MSQ became the second most frequently used scale of job satisfaction as it measures the individual satisfaction with twenty different facets of the work environment (Newby, 1999). The validity and reliability of the MQS will be discussed in the sections below.

Relationship Between Constructs

This section will briefly discuss the research precedents for the hypothesized relationship between the variables of job satisfaction and servant leadership. Zimmerer (2013) conducted a mix-method study to determine if there was a relationship between job satisfaction and servant leadership across the Baby Boomer generation, the Millenial generation, and the Generation X among a diverse group of professionals. The researchers used a non-experimental design. The quantitative part of the study sought to understand the levels of servant leadership and the levels of job satisfaction as experienced by the stated generations. The investigator used correlation analysis in the research design. The results obtained by performing the Pearson’s correlations procedures were further analyzed with a multivariate analysis of variance (MANOVA) to simultaneously test all variables and reduce the chances of committing a Type I error.
The correlation procedures provided data to support the hypothesis that across all generations, servant leadership was positively related to job satisfaction.

Henning (2016) conducted a research project to examine if job satisfaction was positively related to servant leadership in a healthcare organization in Colorado. This research project did not consider the categorical variable of generational cohort. However, the study by Henning is relevant to this review because it took place in the context of a healthcare organization and because it used Pearson’s correlations procedures to test the proposed hypothesis. Henning (2016) used the OLA instrument developed by Laub (1999) in order to measure levels of job satisfaction and perceptions of servant leadership. The correlation analysis evidenced a positive correlation between servant leadership and job satisfaction with a coefficient of \( r = .680, p < .001 \) (2-tailed). The researcher deemed that based on general standards of Pearson’s correlation, the relationship between servant leadership and job satisfaction could be considered as a large effect size with .680 being well above the .5 guideline for a large effect size.

Carley (2008) performed a quantitative study to determine the relationship between job satisfaction and the two seemingly opposing styles of transformational and transactional leadership. This was also a correlational research project which specifically focused on the categorical variables of generational cohorts, among others. While this study did not focus on servant leadership, it is a helpful and important precedent because it was conducted with the population sample from a healthcare system. It is also an important precedent because of its research design; it also employed Pearson’s correlation procedures to measure if there was a positive relationship between constructs. Carley (2008) followed-up the results of the study with regression analysis to study separately the influences of each generational group.

Finally, the study performed by Erickson (2013) set an important precedent in regard to the hypothesized relationship between servant leadership and job satisfaction. Erickson (2013) measured if the servant leadership attributes of agapao love, vision, humility, and empowerment may or may not have affected job satisfaction within the context of governmental agencies. Erickson (2013) measured servant leadership using the Servant Leadership Assessment Instrument by Patterson (2003) which is a value-based instrument. Pearson’s r correlation was employed to determine if there was a positive relationship between servant leadership attributes and job satisfaction. The investigator used the guidelines by Guildford as referenced by Williams and Mongue (2001) in order to interpret the bivariate correlations. Erickson (2013) stated that all of the servant leadership attributes were positively correlated to job satisfaction with a coefficient above \( r = .774 \). This research study used a one-way ANOVA to identify if there were differences between three generational cohorts within the sample population. However, the results yielded no significant difference in job satisfaction among the three generational cohorts. The study by Erickson (2013) is a significant recent search precedent because it used a correlational design to assess the relationship between the
variables in question. This study also set a precedent of using one-way ANOVA to identify differences among various age groups within the sampled population.

As demonstrated in this section, researchers have explored the hypothesized relationships between job satisfaction and servant leadership. Furthermore, Pearson’s correlation procedure is a reliable analysis that allows researchers to measure if there is a positive relationship between constructs. While research has been performed to understand how servant leadership and job satisfaction relate in healthcare contexts, further research is needed to examine this hypothesized relationship across generational groups, specifically, among nurses in healthcare systems. Therefore, the following research questions and hypotheses are proposed.

### Research Questions and Hypotheses

This study proposes the following research questions and hypotheses in light of the literature review and the research previously performed on the relationship between the constructs in question and how such constructs impact nurses in the Millennial Generation, the Generation X, and the Baby Boomer generation. Since this study will employ the short version Minnesota Satisfaction Questionnaire, the following research questions and hypotheses include the measures of intrinsic and extrinsic dimensions of job satisfaction.

Research question 1: Is there a difference in the levels of intrinsic of job satisfaction by generational group?

Research question 2: Is there a difference in the levels of extrinsic of job satisfaction by generational group?

Research question 3: Is there a difference in perception of servant leadership by generational group?

### Hypotheses

Research Hypothesis 1a: For Millennial nurses, intrinsic job satisfaction is positively related to perceived servant leadership.

Research Hypothesis 1b: For Millennial nurses, extrinsic job satisfaction is positively related to perceived servant leadership.

Research Hypothesis 2a: For Gen X nurses, intrinsic job satisfaction is positively related to perceived servant leadership.

Research Hypothesis 2b: For Gen X nurses, extrinsic job satisfaction is positively related to perceived servant leadership.
Research Hypothesis 3a: For Baby Boomer nurses, intrinsic job satisfaction is positively related to perceived servant leadership.

Research Hypothesis 3b: For Baby Boomer nurses, extrinsic job satisfaction is positively related to perceived servant leadership.

**Significance of the Study**

Kingma (2007) identified the widespread shortage of nurses and the nurses’ high turnover rate as a global issue. Therefore, retention and recruitment of the nursing staff is of high priorities in healthcare organizations around the globe (Kingma, 2007). Cavanagh (1992) stated that while many different factors have been identified as related to nurses’ high turnover rate, job satisfaction is the most commonly cited. Lu et al. (2012) performed an update of a relevant literature review on nursing staff job satisfaction originally published in 2005. The study found empirical evidence that indicates the need for organizations to continue to improve the working conditions affecting nursing staff job satisfaction. Researchers have observed a significant problem with job satisfaction in nonprofit organizations (Cheng et al. 2014; Bolton, 2011) This study proposes to examine the relationship between the variable of job satisfaction and the variable of servant leadership in the AMITA Health system in the state of Illinois. If there is a positive relationship between the two variables in question, then implementing servant leadership behaviors in healthcare organizations could be of interest to nursing managers and leaders in the healthcare industry.

Lastly, this study might be significant because knowledge about job satisfaction and servant leadership may increase the welfare of nursing teams in healthcare systems. Researchers have projected increased levels of vicarious traumatization among members of medical teams that work serving COVID-19 patients (Li et al., 2020). Due to the current crisis, organizational leaders working in healthcare systems will face the urgent challenge of ensuring job satisfaction and the wellness of medical teams.

**Method**

This section will describe the proposed methods to perform a quantitative, non-experimental, design that calculates correlations between servant leadership and employee satisfaction. Additionally, the study proposes to implement univariate analysis-of-variance (ANOVA) in order to measure if there is a significant difference in the levels of job satisfaction and perceptions of servant leadership by generational cohort.
Data Collection

The proposed study will draw participants from the total population of two hospitals in the AMITA Health System in Illinois. The two participant hospitals are the AMITA Health Glean Oaks Hospital and the AMITA Health Bolingbrook Hospital. This design proposes administering two surveys delivered to participants digitally using the ZOHO tool. One survey will measure the variable of job satisfaction and another survey will measure perceptions of servant leadership. Overall Tonidandel, and Starbuck (2006) refer to the practice of increasing the sample size of the groups in order to accommodate for anticipated dropouts. Therefore, a total of 1,200 nurses will be invited to participate to reach the target sample size for each generational group, 53 participants for the Millennial Generation and 53 participants for the Generation X group, and 53 for the Baby Boomer cohort. There will be a maximum of 80 surveys collected per generational cohort, then the survey will be closed. More on the sample size below.

Sampling Plan

This study proposes using convenience sampling because it will draw participants from the nursing staff who are willing to participate in the study. This approach will be adopted given the current situation because the COVID-19 pandemic will make it more difficult to implement a systematized approach such as random sampling. This study received support from the administration of the AMITA Health System which made it convenient to recruit participants from the general population at chapel events.

Sample Size

Following the precedent established by Bridges (2018) and Zimmerer (2013) This study will employ the recommended criteria by Faul, Erdfelder, Buchner, and Lang (2009). Therefore, the study will use the G*power calculator software in order to determine the sample size based on the standard values of the level of significance of alpha = .05 two-tailed, statistical power of .80 and an assumed moderate effect size of 0.3 of Pearson-Product Moment Correlation Coefficient. The result for the a priori analysis was a required sample group of 82 total participants.

Regarding the one-way ANOVA test the G*power calculator yielded the sample size of 53 participants per group based on the standard values of the level of significance of alpha = .05, the statistical power of .80, and an assumed moderate effect size of 0.25. Therefore, this study will use the required total sample size of 159 participants, since it is the largest assumed sample group. It is important to note that this study is not a replication of a previously performed study therefore it will employ the assumed standard values for moderate effects.
Instrumentation

This study proposes using two scales, the Minnesota Satisfaction Questionnaire (MSQ) to measure the dependent variable of job satisfaction and the one-factor servant leadership instrument by Winston and Fields (2015).

Minnesota Satisfaction Questionnaire

The Minnesota Satisfaction Questionnaire (MSQ) is considered the second most frequently used measure of job satisfaction (Newby, 1999). It is frequently used by researchers because it measures individual satisfaction with twenty facets of the work environment. The long form of the MQS contains 100 items that measure the twenty aspects of the workplace. Each one of the 100 items can be converted to respondent’s satisfaction of each of the facets. The short version of the MQS contains twenty items of the workplace but only measures intrinsic and extrinsic satisfaction. This study will use the short version of the MSQ as short surveys provide overall higher completion rates. Considering the current COVID-19 crisis, a short survey may provide more complete data quality. Researchers have deemed the MSQ as reliable because it is based on the Hoppock Job Satisfaction Blank, which is a highly reliable scale (Lester and Bishop, 2014). According to Weiss et al., (1967) the MSQ is considered reliable because it was designed to measure actual satisfaction with a reinforcer in the work environment. The MSQ is also considered reliable because it draws data on the internal consistency reliability as estimated by Hoyt’s analysis-of-variance method (Weiss et al., 1967). Hoyt’s analysis, also known as Cronbach Coefficient Alpha, is one of the main reliability figures that is used to determine the internal consistency of a scale (Neuman, 1997).

The alpha coefficient is one of the most important and pervasive statistics in research involving test construction commonly used in behavioral science research (Cortina, 1993). As an example of the reliability of the MSQ, Weiss et al., (1967) stated that coefficients for the MSQ scale ranged from a high of .97 on Ability Utilization (for stenographers) and Working Conditions (for social workers) to a low of .59 on Variety (for buyers). The median Hoyt reliability coefficients ranged from .93 for Advancement and Recognition to .78 for Responsibility. Of the 567 Hoyt reliability coefficients reported (27 groups with 21 scales each), 83 % were .80 or higher and only 2.5 % were lower than .70, which is the minimum acceptable value Weiss et al., (1967) concluded that such scores evidence that the MSQ scales have adequate internal consistency reliabilities.

One-Factor Servant Leadership Instrument

This study proposes using the one-factor servant leadership instrument developed by Winston and Fields (2015). The authors sought to identify the unique behaviors by a leader which establish servant leadership in an organization. The instrument was
developed in two stages. First, the researchers engaged a panel of 23 experts in order to evaluate 116 servant leadership operationalized behaviors drawn from previous operationalizations. Each expert rated the 116 behaviors using a 4-point scale. This resulted in the retention of 22 behaviors for further analysis (Winston and Fields, 2015, p. 421). The 22 behaviors were formatted as a survey and then submitted to a panel of 456 working adults who included students and alumni from a variety of universities. This procedure resulted in the reduction of the 22 items as the researchers conducted an exploratory factors analysis. The authors eliminated the items that cross-loaded on both factors with a level of correlation exceeding 75% of the total variance. This resulted in ten items remaining which contributed positively to a scale reliability of α - 0.96. To examine the psychometric property of the measure, the scale was assessed for convergent validity. The authors also performed a confirmatory factor analysis of the essential servant leadership behaviors to assess discriminant validity. According to Winston and Fields (2015), the results of the stated assessments provided a valid approach for measuring to which extent a leader exhibits behavior establishing servant leadership in an organization.

**Strengths and Weakness of Research Design**

A potential strength of this study is the proposed instrumentation. Both, the MSQ and the one-factor servant leadership instrument by Winston and Fields (2015) are highly reliable scales with well-accepted scores of reliability and internal validity. Both instruments have been tested for reliability using the alpha coefficient measurement (Dennis, 2004; Weiss et al., 1967; Winston & Field, 2015). The sampling approach could be considered a weakness in the research design. Given the support by the administration of the AMITA Health system to this study, it might be possible to offer safe and accessible methods for participants to participate in the study. According to Cozby and Bates (2018) non-probability sampling reduces the possibilities that the sample population is representative of the total population. This challenge also means results obtained from the study may not generalize to the intended population (Cozby and Bates, 2018, p. 157).

**Analysis**

Following the theoretical precedent established in research performed by Carley (2008), Henning (2016), and Zimmerer (2013), this study proposes to use Pearson Product-Momentum Correlation procedures to determine if the variable of job satisfaction positively relates to the variable of servant leadership among nurses in the Millennial Generation and the Generation X. According to Girden and Kabacoff (2011), correlation studies attempt to establish relationships between two or more quantitative variables. This research proposal has identified two categorical groups belonging to two distinctive generational cohorts. According to Williams and Monge (2001), correlation depicts the existence of a relationship between two variables. Correlation analysis does
not provide information about the causes of the hypothesized relationship. It only indicates that two or more variables vary together negatively or positively. Therefore, the correlation coefficient indexes the degree of the relationship between the variables (Williams and Monge, 2001, p. 127). This study seeks to determine the magnitude of the relationship between the variables of job satisfaction and servant leadership and also to determine the direction of such relationship. Given the current conditions with the COVID-19 pandemic and the anticipated difficulties of involving the nursing staff from the AMITA health network, this study proposes the convenience sampling approach with a minimum required number of participants of 53 as determined by the G*power calculator using a moderate to high correlation of .80 as established by Guildford (1956) with an effect size of .03 to avoid making a Type I error.

This research study proposes implementing the one-way ANOVA procedure to determine if there is a difference in levels of job satisfaction and perceptions of servant leadership by generational group. According to Hair et al. (2019), ANOVA is the appropriate analysis when the objective is to assess group differences on a single metric dependent variable. Following the procedures previously developed by Ceballos (2017), Erickson (2013), Lafitte (2017), and Morris (2011), this study will endeavor to test if there is a difference between three population means, based on the observed difference between the three sample means and their distribution (Williams and Monge, 2001).

The G*power calculator determined to use 53 participants by using the standard values of significance of alpha = .05, statistical power of .80, and an assumed moderate effect size of 0.25. Consider that the review of the literature did not yield a high number of research projects in which the variables of job satisfaction and servant leadership were specifically measured by the categorical variable of generational cohorts in healthcare contexts.

**Results**

This section will summarize the data analyses performed to test the research questions and research hypotheses. This section is organized into the following sections: data inspection, and findings. Each of these sections further define the research results.

**Data Inspection**

The data for the two metric variables of levels job satisfaction and perceptions of servant leadership were inspected for normal distribution by analyzing the histogram of each of the variables including the intrinsic and extrinsic measures for the variable of job satisfaction. Moreover, the observation of the Skewness and Kurtosis values were all within +/−2 and did not suggest any significant departures from normality. Levene’s test for homogeneity of variance for all the dependent variables compared by the generational cohort showed significant results.
Prior to performing the Pearson’s product-moment correlations tests, the bivariate relationship between the variables was examined by observing the scatterplot graphics produced by SPSS. Linear relationships were observed between the variables. One individual was an extreme departure from the pattern of the data and was removed as an influential data point. Other than this anomaly, the datasets appeared to be linear and homoscedastic.

**Findings**

In order to answer the three research questions, a one-way ANOVA test was conducted for each of the variables to assess if there are significant differences in the means of the intrinsic and extrinsic measures of job satisfaction and perceptions of servant leadership across the three generational groups that participated in the study. This analysis conducted a Bonferroni post hoc test in order to identify paired differences among the generational cohorts. The Kruskall-Wallis results were also observed due to the possible problem with homogeneity of variance.

In order to answer the research hypotheses, Pearson’s product-moment correlations tests were performed to determine if there is a positive correlation between intrinsic/extrinsic measures of job satisfaction and perceptions of servant leadership among the three generational cohorts: The Baby Boomer generation, Generation X, and the Millennial generation.

**Research Questions**

The one-way ANOVA analyses evaluated if there were significant differences in the intrinsic and extrinsic measures of the dependent variable of job satisfaction across the levels of the age factor defined as the generational cohorts representing the Baby Boomer generation, Generation X, and the Millennial generation. The one-way ANOVA analysis also evaluated if there were significant differences in the measures of the dependent variable of perceptions of servant leadership across the said generational groups. The descriptive statistics by group and the results of the one-way ANOVA test are shown in Table 1.

In regard to the first research question, the results revealed that there are no significant differences among the three generational groups in relationship to the intrinsic measures of job satisfaction, $F(2,153) = 2.30$, $p = .104$. 
Table 1

Means, Standard Deviations, and One-Way Analysis of Variance

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baby Boomers</th>
<th>Generation X</th>
<th>Millennial</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>55.9 (8.4)</td>
<td>52.7 (12.4)</td>
<td>51.3 (11.5)</td>
<td>2.300</td>
<td>.104</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>25.58 (5.0)</td>
<td>21.9 (8.5)</td>
<td>19.9 (7.6)</td>
<td>8.510</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Servant Leadership</td>
<td>46.8 (8.8)</td>
<td>40.6 (15.7)</td>
<td>39.3 (15.6)</td>
<td>4.056</td>
<td>.019*</td>
</tr>
</tbody>
</table>

*The mean difference is significant at the 0.05 level

Regarding the second research question, the results of the one-way ANOVA test indicated that significant differences existed among the three generational groups in regard to extrinsic measures of job satisfaction, F(2,159) = 8.51, p < .001. The Bonferroni post hoc test showed that the Baby Boomer group had a significantly higher level of extrinsic job satisfaction than either the Generation X (p = .026) or the Millennial group (p < .001) while the Generation X and Millennial groups did not significantly differ from each other (p = .487).

Concerning the third research question, the one-way ANOVA test showed that significant differences existed among generational groups regarding perceptions of servant leadership, F(2,152) = 4.06, p = .019. The Bonferroni post hoc indicated that Baby Boomers has a significantly higher level of servant leadership than millennials (p = .028), but that Generation X did not significantly differ from Baby Boomer (p = .085) or from Millennials (p = 1.000).

Research Hypotheses

The Pearson’s product-moment correlations test assessed if intrinsic and extrinsic measures of job satisfaction were correlated with measures of perceptions of servant leadership among the generational cohorts representing the Baby Boomer generation, Generation X, and the Millennial generation. Table 2 depicts the results of the correlation analyses.

The results indicated a significant positive relationship between intrinsic measures of job satisfaction and perceived servant leadership among the Millennial generation, r(53) = .774, p < .001. The results also showed a significant positive relationship between extrinsic measures of job satisfaction and perceived servant leadership within the Millennial cohort, r(52) = .835, p < .001. The relationship between intrinsic measures of job satisfaction and perceived servant leadership among the Generation X group was also a significant positive relationship, r(50) = .718, p < .001.
Table 2

<table>
<thead>
<tr>
<th></th>
<th>Intrinsic</th>
<th>Extrinsic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby Boomer</td>
<td>.496</td>
<td>.780</td>
</tr>
<tr>
<td>Generation X</td>
<td>.718</td>
<td>.904</td>
</tr>
<tr>
<td>Millennial</td>
<td>.774</td>
<td>.835</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.01 level (2-tailed)

The correlation analysis found an approximately perfect positive and significant correlation between extrinsic measures of job satisfaction and perceptions of servant leadership among the Generation X group, $r(50) = .904, p < .001$. In regard to the Baby Boomer group, the correlation analysis indicated a moderate positive correlation between intrinsic measures of job satisfaction and perceptions of servant leadership, $r(42) = .496, p = .001$. Finally, the correlation analysis also evidenced a high positive correlation between extrinsic measures of job satisfaction and perceived servant leadership among the Baby Boomer cohort, $r(45) = .780, p < .001$.

**Discussion**

The purpose of this research project was to assess if a significant positive relationship existed between the variables of job satisfaction and the variable of servant leadership among the following generational cohorts: The Millennial generation, the Generation X, and the Baby Boomer generation. This study also sought to understand if there were significant differences in the intrinsic and extrinsic measures of job satisfaction and the differences in perceptions of servant leadership among the three generational groups of nurses who work at the AMITA Health network in Illinois.

**Research Questions**

Overall, the findings of the one-Way ANOVA analysis yielded slightly different results than previous research conducted on measures of job satisfaction and perceptions of servant leadership by generational cohorts in the context of public or non-profit organizations (Lafitte, 2017; Zimmerer, 2013). The one-way ANOVA results indicated that no significant difference existed among the three generational groups regarding intrinsic measures of job satisfaction. Intrinsic job satisfaction measures were derived from the short version of the Minnesota Satisfaction Questionnaire and included factors that related to internal motivation, ability utilization, moral values, and recognition. However, the analysis did find significant differences in relation to extrinsic measures of job satisfaction among the three generational cohorts. Extrinsic job satisfaction measures were also derived from the short version of the Minnesota Satisfaction Questionnaire.
Questionnaire and included factors that encompass the concepts of company policies and practices, remuneration, and working conditions. Moreover, the Bonferroni post hoc test showed the paired differences among generational cohorts and indicated a significant difference between the Generation X and the Baby Boomer generation.

In relationship to the extrinsic measures of job satisfaction, the Baby Boomer Group exhibits the highest overall satisfaction, while the Generation X and Millennial cohorts evidenced similar levels of satisfaction. Regarding perceptions of servant leadership, the one-way ANOVA analysis indicated significant results among the generational cohorts. However, Bonferroni post hoc test showed that the Generation X group did not report scores that are distinguishable from those reported by Baby Boomer and the Millennial generation. Notably, there was a considerable difference between the Millennial generation cohort and the Baby Boomer cohort regarding perceptions of servant leadership.

Overall, the results of the correlation tests and the one-way ANOVA point to the importance of the variables of job satisfaction and servant leadership in the context of healthcare organizations across the three generational cohorts involved in this study. While no statistically significant differences were identified in regard to internal measures of job satisfaction, the study indicated notable differences in regard to external measures of job satisfaction and servant leadership. The Baby Boomer generation exhibited the highest levels of extrinsic job satisfaction in comparison to the Gen X and the Millennial cohort. This finding confirms the insights from the study performed by Wilson et al. (2008) which indicated that Baby Boomers were significantly more satisfied than their generational counterparts. The Millennial generation reported the lowest levels in perceptions of servant leadership within their organization in comparison with the Gen X and the Baby Boomer cohorts.

Research Hypotheses

The findings of the correlation tests confirmed the results of past research conducted between the variables of job satisfaction and servant leadership (Amadeo, 2008; Henning, 2016; Zimmerer, 2013). Therefore, the results of the correlation analyses supported all six research hypotheses because there was a significant positive relationship between servant leadership and internal and external measures of job satisfaction across all of the generational cohorts. Based on the general standards provided by Guildford (1973) all of the values indicated a strong positive correlation between internal and external measures of job satisfaction among all generations except the values of intrinsic job satisfaction which showed a moderate positive correlation among the Baby Boomer generation. The strongest positive correlation was found between external measures of job satisfaction and servant leadership among the Generation X cohort.
Generalizability

While the study yielded significant positive relationships between intrinsic and extrinsic measures of job satisfaction and servant leadership, several limitations should be taken into consideration. First, the study was limited to a survey of participants in four hospitals within the AMITA Health network. The larger population representing the entire AMITA Health system was not represented in this study. Future studies should include larger samples sizes to increase the diversity of the population of nurses among the intended generational cohorts. Second, the researcher could not obtain data from a population that was randomly selected due to the current conditions related to the COVID-19 pandemic which could represent a challenge to the generalizability of the findings of this study.

The servant leadership and job satisfaction scales were originally designed as 1-5 but in the survey engine, they were entered on a 1-6 scale. Due to this error in the design of the scale on Zoho Survey the numbering of the scales does not match the numbering of the original scales. The researcher does not expect that this would have a major impact on the use of the scale, but the scales might not be validated as they don’t reflect the original design.

Implications for future research

This study contributes data to the body of research on the variables of job satisfaction and servant leadership because it analyzed the relationship between intrinsic and extrinsic measures of job satisfaction with the variable of servant leadership across generational cohorts in the context of healthcare systems. The literature review did not yield a significant number of studies that consider intrinsic and extrinsic factors within quantitative research designs.

According to Decker et al. (2009) internal and external factors of job satisfaction are associated with nurses’ intentions to leave the workplace and impact the turnover rate in healthcare organizations. This study found that the Millennial generation reported the lowest levels in regards in perceptions of servant leadership and lower levels in perceptions of extrinsic job satisfaction factors along with the Gen X cohort. The findings of the correlation analyses of this study agree with the research performed by O’Hara (2019) which showed that leadership that is supportive in nature is the most important factor that contributes to Millennial nurses in the workplace.

This study found a significant positive relationship between servant leadership and intrinsic and extrinsic measures of job satisfaction within the population of four hospitals belonging to the AMITA Health network. Future research recommendations include studying job satisfaction among nurses with a multiple regression model which would allow the researcher to analyze the relationship between job satisfaction and
several predicting factors of job satisfaction across multiple generations. A second recommendation is to include Generation Z in the research design. Generation Z encompasses individuals born between 1997 to 2013 (Schroth, 2019) who are just entering the labor market. According to Gaidhani (2019), little is known about their traits, needs, and work styles. It is important for researchers and managers to understand the factors that predict job satisfaction among members of Generation Z. A third recommendation is to include the entire AMITA Health network in a follow-up study. The current study included four hospitals representing the AMITA Health system from the Chicago suburbs. Including the hospitals located in the city of Chicago would allow the researcher access to a larger population which is representative of the entire network. A fourth recommendation is to utilize the long form of the Minnesota Satisfaction Questionnaire which would allow for a more comprehensive assessment of the variable of job satisfaction. Finally, future research would benefit by obtaining data from a random population to make accurate probability statements about parameters and likely sampling errors of statistics (Williams and Mongue, 2001).

**Conclusion**

The results of this study indicated that servant leadership is an important factor in relation to job satisfaction among the staff of nurses in hospital settings. The results affirm the hypotheses that servant leadership is positively correlated to job satisfaction among all the generational cohorts. The most significant gap in relationship to perceptions of servant leadership existed between the Baby Boomer generation and the Millennial generation. While the study did not find significant differences regarding intrinsic measures of job satisfaction, the results indicated a significant difference in perceptions of extrinsic measures of job satisfaction. The key findings of the study affirm servant leadership as a leadership style that is correlated to job satisfaction in the healthcare industry. Notably, the findings suggest that external factors of job satisfaction such as company policies, working conditions, institutional practices, and remuneration play an important role in nurses’ job satisfaction.

**About the Author**

Jorge Flores is a third-year Ph.D. student at Regent University, where he is studying Organizational Leadership. He has more than 20 years of experience in the religious and non-for-profit industries. His research interests include organizational culture, talent acquisition, organizational development, job satisfaction, and servant leadership.

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References


Auerbach, D., Buerhaus, P., & Staiger, D. (2017). Millennials almost twice as likely to be registered nurses as baby boomers were. *Health Affairs.*


Ceballos, S. D. (2017). A study of the differences in globe leadership preferences between baby boomers, generation X and millennials (Publication No


