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An Employee-Centered Care Model Responds To The Triple Aim: Improving Employee Health

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An Employee-Centered Care Model Responds to the Triple Aim: Improving Employee Health

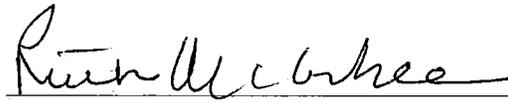
Submitted to the Faculty
Yale University School of Nursing

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Nursing Practice

Kelly Ann Fox

October 21, 2016

This capstone is accepted in partial fulfillment of the requirements for the degree Doctor of Nursing Practice.



Ruth McCorlde PhD, RN,

Date here

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Signed: Kelly Ann Fox

October 21, 2016

Manuscript: An Employee-Centered Care Model Responds to the Triple Aim: Improving Employee Health

Introduction

Health care spending in the United States (U.S.) accounts for 18% of the gross domestic product (GDP) and has increased at a rate faster than the economy for 31 of the past 40 years.¹⁻³ In the past decade, health care costs have increased 76% compared to income growth at 30%.¹ U.S. health care expenditures continue to rise at a rate higher than any other developing country, yet this investment has not equated to better health outcomes for the American people.^{1,3-5} This is due to Americans experiencing a lack of timely access to primary care.^{3,6} With more individuals covered on health care insurance, a growing population and fewer physicians specializing in primary care, patients are either experiencing a delay in accessing care or are over-utilizing emergency care.^{3,7,8} Further, patients are not receiving coordinated care, resulting in significant health care costs and a decrease in quality, safety and patient satisfaction.^{3,9} Berwick et al noted that solving this problem requires a Triple Aim approach: improving the health care experience, improving the health of populations, and reducing health care cost.¹⁰

The cost of health care, timely access to care, and consumer satisfaction will remain problematic if dramatic changes in health care delivery models are not developed and implemented. Nurses have the essential knowledge and skills to help address these health care challenges, yet they remain an underutilized resource in health care reform.^{8,11} Mensik emphasized that “nursing is key to meeting the goals of the triple aim...It has been long noted in the literature that nursing care can reduce costs, improve patient satisfaction, and improve health.”¹² The overall purpose of this article is to describe a nurse-led employee-centered model of care for employees of a self-insured corporation supported by the evidence and validated by experts.

A two step-process was used to ensure the validity of the model description. Initially, multiple steps were followed: 1) content was determined through a systematic literature review; 2) content was organized into specific components; and 3) similar components were placed into categories. The description was documented by the first author and reviewed by the second author. Once both authors agreed on the accuracy of the model based on the evidence, a panel of four experts was identified and asked to review the paper and model. Selection of experts was based on professional expertise and contributions to the literature. A structured form was constructed for recording experts' ratings of components, reflecting sections of the manuscript and the three figures.

Each expert independently reviewed and rated the components for relevance and clarity using a standardized form, with binary response option of "yes" or "no" for relevance and "high" or "low" for clarity. The form also included a column for suggestions. For Relevance each of the 20 components received rating of "yes" from each of the four experts. Based on standardized method for calculation of Content Validity Index (CVI), this may be regarded as a Relevance Index (similar to CVI) of 1.0. For Clarity, 16 of 20 components received ratings of "high" from each of the 4 experts, and 4 of the components received ratings of "high" from 3 experts and "low" from 1 expert. (No component received rating of "low" from more than one expert.) This yields a Clarity Index of .95 (by averaging component clarity values across the components). Thus, both the Relevance Index and Clarity Index exceed the standard of .90, proposed by Polit and Beck for assessing content validity of instruments. Based on Clarity ratings and accompanying comments by experts, we made revisions to the model, as described in the manuscript.¹³

Background to the Problem

Health Care Costs

Health care spending and expenditures are directly and indirectly impacting the United States, corporate America and working Americans. Innovative solutions and alternative models of care will assist in decreasing costs, improving access to care, and consumer satisfaction.

Direct Costs

It has been projected that health care spending will make up 19.6% of the United States GDP by 2024.¹⁴ In comparison, Netherland's health care spending, second only to the U.S., made up 11.9% of its GDP in 2011.⁹ This does not reflect the additional \$750 billion lost annually in health care resource waste.¹ The Institute of Medicine defines health care waste in 6 domains: unnecessary services, services inefficiently delivered, prices that are too high, excess administration costs, missed prevention opportunities, and Medicare fraud.¹ Several additional factors are identified as contributors to rising health care costs. These include: increased costs of services (linked to advancement in technology), the use of incentives for reimbursement models, a growing aging population, and the likelihood of developing multiple chronic diseases.^{3,5}

Indirect Costs

An equally real, yet historically less addressed, problem relates to the significant indirect costs impacting corporate America. Indirect costs are defined as costs absorbed by corporations related to absenteeism, presenteeism, worker's compensation, short-term disability and long-term disability.^{3,15} These costs are just beginning to be tracked, quantified and acknowledged as significant motivators for workplace health and timely access to care. In 2012, the Integrated Benefits Institute estimated that poor health of

Americans costs the economy \$576 billion related to medical costs, pharmaceutical use, lost productivity, and wage replacement.¹⁵

Employee

In 2015, the Kaiser Family Foundation published findings from the seventeenth Kaiser Family Foundation/Health Research and Educational Trust (Kaiser/HRET) Employer Health Benefits Survey on health care trends. These findings revealed that health care cost trends are directly impacting employees' personal finances.

In 2015, premiums increased 4% compared to income growth at 1.9%. Between 2005 and 2015, premiums increased 61% with the employee contribution increasing 83%. To counter these increases, many employees are opting for high deductible health plans (HDHP). In 2015 24% of employees selected HDHPs with an average annual deductible of \$2,099.00. In comparison, in 2006, only 4% of employees selected HDHPs.^{16,17}

Additional contributions and cost-sharing out-of-pocket expenses, by the employees, are seen through co-pays and deductibles. In 2015, 68% of covered employees paid a co-pay, averaging \$24-\$37 for every in-network office visit. An even greater financial burden comes into play related to annual deductibles. 81% of covered employees must satisfy an annual deductible before all or most health services are paid by the plan. Annual deductibles have increased 255% over the past nine years.^{16,17}

Rising health care costs are negatively impacting the United States budget, corporate America and individual employees. Current trends in health care costs are not only financially unsustainable, but also pose barriers for employees seeking care.

Access to Care

Contributing to escalating direct and indirect health care costs is the decline in timely access to primary health care.⁶ The American Association of Medical Colleges projected that the United States will experience a primary care physician shortage of 12,500-31,000 by 2025.¹⁴ Other sources project the shortage to increase to 45,000-66,000.^{7,8,11} This, combined with a projected increase in patients, a result of nine million uninsured Americans gaining access to insurance, leads to patients experiencing delays in accessing care or over-utilizing emergency care.^{7,8,18} Furthermore, complexity of care for patients with multiple chronic diseases place additional time demands on providers, thus reducing office visit availability. These delays and inappropriate uses of the emergency care system diminish patient satisfaction in the health care experience.¹⁹

Employee

Millions of employees are forced to access care during work hours. Employees unable to seek care during work hours are faced with seeking care either after hours in urgent care, in emergency care settings, or choosing not to access care at all. According to Bodenheimer and Pham (2010), even though four-fifths of patients surveyed in 2006 acknowledged having a routine care provider, only 27% were able to access care after hours; thus leaving 73% the option of seeking care in costly alternative environments, not seeking any care, or taking a vacation day.²⁰ This scenario results in escalating health care costs and diminished consumer satisfaction.

According to the Kaiser/HRET Employee Health Benefits Survey (2015), 57% of non-federal public and private employers offered some of their employees' health care benefits. This is a decrease from 68% in 2000.¹⁶ These numbers signify that a substantial percent of the employee population is left without health benefits and cost-effective, timely access to care. The stated dilemma highlights an underserved population requiring additional focus and innovative ideas for addressing their health care needs. These

statistics help to substantiate the need to develop innovative models to address this underserved population.

Evidence to Support the Model

A comprehensive literature review was conducted to identify relevant and valid evidence essential to the development of an Employee-Centered Care Model. A search of databases included SCOPUS, PUBMED, and CINAHL. The literature review included content specific to: worksite clinics; nurse managed health clinics; the role of the nurse practitioner in primary care; quality and safety care outcomes of nurse practitioner care; telemedicine; sustainable reimbursement care models; care model innovations; and the patient-provider relationship. Inclusion criteria included national and international publications published between 2005 and 2016. Exclusion criteria included articles published in languages other than English. Literature was grouped into four different categories: Worksite Clinics; Nurse-Managed Health Centers; Telemedicine; and Quality-Care Relationship/Nurse Integrator. All categories supported the development of the Employee-Centered Care Model. The literature review yielded a total of 20 articles that are included to support the model.

Worksite Clinics

Nationally, employers are faced with growing health care costs, decreased employee health, and losses in productivity. They are implementing innovative health models and payment strategies to counter these challenges.^{3,15,21-23} Some of the strategies include consumer-driven health plans and prevention or wellness programs. Overall, these strategies have resulted in increased cost-shifting, out-of-pocket expenses, health literacy challenges for employees, and inconsistent return on investment (ROI) for employers.³ Therefore, employers have sought more-inclusive health delivery models heavy in nurse utilization and with a Triple Aim approach. Worksite clinics have proven to be a successful such model.^{3,21,23,24}

Shahly et al., completed a systematic literature review exploring relevant evidence on the effectiveness of worksite clinics. Multiple key words were searched, yet there were minimal findings on worksite clinics compared to worksite wellness or health promotion programs.³ However, significant themes were identified: increased patient satisfaction, increased access to care, and cost reduction for services when compared to off-site health services.^{3,21,23-25} Anecdotal evidence revealed that worksite clinics positively impacted productivity (absenteeism, presenteeism, and disability), thus impacting indirect costs. However, further research is needed on how significant worksite clinics impact indirect corporate costs.^{3,21,23-25}

McCaskill et al, completed a cost-benefit analysis on the effectiveness of an on-site health clinic at a self-insured corporation. The purpose of the article was to analyze the cost-effectiveness of a nurse practitioner diagnosing and treating upper respiratory illnesses (URI) at an on-site clinic for employees of a self-insured university compared to the same care provided by primary care providers in the community. Utilizing a cost accounting template, market norms and a financial accounting worksheet, the cost-benefit analysis for a one-year retrospective study comparing cost savings in treating 209 employee visits for URI's resulted in a \$6.69 to \$1.00 ROI. Although it was determined to be more cost-effective to treat URI's at an on-site clinic compared to the same care in the community, it did not identify the need for high utilization for the clinic to be sustainable ongoing. An on-site clinic (staffed 5 days per week, 7.5 hours per day) could only be cost-effective with a large employee and dependent population utilization.²³

Acknowledging the relatively new implementation of worksite clinics, the current literature review resulted in nominal credible evidence of cost-effectiveness, utilization, and prevalence compared to wellness programs. Additionally, the majority of relevant literature on worksite clinics was confined primarily to the Journal of Occupational and Environmental Medicine. Further studies need to be

completed on the tracking and documentation of the cost-effectiveness and utilization of worksite clinics.

Nurse Managed Health Centers

Nurse managed health centers (NMHC) have progressively increased in the United States to approximately 250 nationwide.²⁶ Primary care services, with an emphasis on prevention and wellness, are provided by advanced practice nurses, primarily nurse practitioners, in a variety of settings. Many of these NMHCs increase access of care to at-risk populations.²⁷ The 2010 Patient Protection and Affordable Care Act identified NMHC as a model that supports the national goals of increasing access to care, decreasing cost, and addressing health disparities by expanding primary health services and improving health care.²⁶

Holt et al defined the NMHC as, “a nursing model of health care delivery in which the nursing care delivered is defined according to the following ANA Social Policy Statement:

Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations (ANA, 2010, p. 7)”.²⁶

Nurse practitioners play a vital role in NMHCs. Research strongly supports that primary care provided by nurse practitioners is equal in quality and safety when compared to primary care physicians.^{27,28} In 2011, Barkauskas et al conducted a retrospective data collection study to present quality findings for nine NMHCs. Quality outcomes related to four quality measures were reported. The quality measures were as follows: hypertension care; diabetes care; cervical cancer screening and breast cancer screening. These findings were compared to national ambulatory care benchmarks using the Health Care Effectiveness Data and Information Set (HEDIS). In all cases reviewed, NMHCs quality goals compared

favorably to HEDIS' 50% benchmark. For most of the cases, the quality measures approached HEDIS' 90% benchmark. Barkauskas et al concluded that NMHCs compared favorably with national ambulatory care benchmarks and care was documented as 'good' to 'very good' for quality.²⁷

Telemedicine

Telemedicine has significant potential to increase access to care, reduce costs, and provide convenient care to individuals. An example of disruptive innovation, telemedicine promotes simple, patient-centered care that delivers immediate, quality care, but is much less costly than alternative conventional visits.

The Institute of Medicine (IOM) in 1996 defined telemedicine as "the use of electronic information and communication technologies to provide and support healthcare when distance separates participants."²⁹ In 2012, the IOM re-convened to analyze the growth and changes of telemedicine.

Initially, noting that the terms of telemedicine and telehealth were often used interchangeably, Nesbitt stated that telemedicine typically described direct clinical services, while telehealth included a broader definition consisting of patient care, health education, and remote patient monitoring.³⁰

Though telemedicine has been used for decades, recent improvements in technologies and reductions in cost have led to more interest in the approach as a platform aligned with the Triple Aim for improving health of populations, increasing access to care, and decreasing costs.³⁰

Literature supports the effectiveness of telemedicine on improving the health of populations. Bashshur et al conducted original research on the empirical foundations of telemedicine in primary care. This study suggests that, although the outcomes were limited, telemedicine is at least as effective as traditional care.¹⁴ In 2014, Bashshur et al, completed a literature review between 2000-2014 on the impact of telemedicine on the management of chronic disease. The results demonstrated a reduction in emergency room visits, hospital admissions and limiting the severity and incident of illness for

individuals with congestive heart failure, stroke, and chronic obstructive pulmonary disease. This review highlights the impact of telemedicine on improving health outcomes.³¹

Telemedicine is an effective alternative to conventional visits for immediate, convenient access to care. Through virtual video visits, secure messaging, and use of digital and cell phone cameras to send pictures for diagnosis and treatment, the telemedicine platform is a safe and convenient platform for care.³²

Two domains impact the timeliness to access care: delays in primary care provider appointments and patient time burdens related to travel and wait time. Telemedicine virtual appointments offer immediate access to care compared to waiting for up to 20 days for a primary care appointment.³³ The time burdens associated with accessing care impact both patient satisfaction and workplace productivity. Ray et al., quantified this patient time burden using The American Time Use Survey. Results showed that the total average patient time burden was 123 minutes per patient clinic visit, including 86 minutes of wait time and 38 minutes of travel time. The average face-to-face time spent with the provider was 20.5 minutes. The IOM identifies timeliness in accessing care as a key element to quality.³⁴ Telemedicine will help to fill the gap in providing timely access to quality care.

Telemedicine is a cost-effective alternative to conventional care.³⁵ The Average cost for a telemedicine visit is \$20-\$40. When compared to \$150.00 for an average primary care visit, or \$750.00 for an average visit for a minor issue in the emergency room, a telemedicine visit significantly reduces costs for both the payer and the patient.^{33,36}

Currently, telehealth platforms are used to remotely monitor congestive heart failure patients; home health programs for veterans; remote intensive care units; specialty care i.e. dermatology , radiology; Telestroke; and Express Care Virtual, formally known as Health e-Xpress.

The latter is a telemedicine platform available to any individual with or without insurance in Oregon, Washington and California. This care model involves a virtual health clinic staffed by licensed board certified health professionals. The aim of this model is to provide convenient, low-cost care to any individual. Treatment and diagnosis of minor health issues are conducted through a private, secure video appointment. Patients connect at either a dedicated Kiosk in select locations or with the use of a personal computer, smartphone or tablet for a real-time virtual medical appointment with a licensed board certified health professional.³⁷ In 2014, 1,591 Express Care Virtual visits were reported with a 98% satisfaction rate. Of these visits, 96% stated that the care was just as good as, or better than, a traditional visit.³⁸

With 20% of our population spread geographically over 80% of America, an aging population and a shortage of primary care physicians, Telemedicine is an essential innovation needed to care for both rural and urban Americans.³⁰

Quality-Care Relationship/Nurse Integrator

Berwick et al identified certain design constraints imperative to successfully achieving the Triple Aim. One constraint is the use of an integrator to facilitate care. An integrator is an individual that assumes responsibility for achieving the Triple Aim with a select population. This integrator will focus on changing the “more-is-better” ideology. This is achieved by changing a culture and providing care through transparency, education, shared decision making and a trusting relationship.¹⁰

The role of a nurse as an integrator is an essential component to safe, quality care of a population. Through the use of knowledge, skills and a dedicated caring relationship, the nurse can assess, educate and connect individuals to acute, immediate, high-quality care. Key to a patient-centered model of care is the dedicated caring relationship between the nurse and the patient. Duffy (2003) acknowledged that, “in today’s uncertain world of fast changing technology, violence and terrorism, diverse cultures,

rampant chronic disease, and the worst nursing shortage in history, it is clear that caring relationships may be relevant to quality health care, perhaps more so than ever before.”³⁹ Evidence also supports the notion that relationships between nurses and other health care providers, through collaboration and coordination of care, are essential to patient health outcomes.³⁹

Duffy (2003) illustrates the power of a dedicated, caring relationship in The Quality-Caring Model and its impact on positive quality outcomes for patients and families, providers, and health care systems. Caring relationships are defined as “human interactions grounded in clinical caring processes. They incorporate physical work (doing), interaction (being with), and relationship (knowing).”³⁹ Further delineation of nursing work is highlighted in two caring relationships: independent relationship and collaborative relationship. Independent relationship is the working relationship between the nurse and the patient and family. This relationship is implemented autonomously by the nurse, who is held accountable. Independent relationships promote discipline-specific interventions and lead to nursing-sensitive patient outcomes. Collaborative relationships are activities and responsibilities shared between the nurse and other health care providers or health systems that result in shared outcomes of care.³⁹ Together these two relationships make up relationship-centered professional encounters described as the greater part of nursing work.³⁹ These relationships are essential to the delivery of quality care. When individuals feel “cared for” they are more open to listen, learn, change behaviors, and follow guidelines.³⁹ Duffy states “the role of the nurse is the link between the patient, the health care team, and the unseen possibilities known as outcomes.”³⁹

Further relevance to the role of a nurse facilitator is highlighted by Gillespie et al. Gillespie et al conducted a secondary analysis from a cohort study to determine the effectiveness of telemedicine in reducing emergency department (E.D.) utilization in a population of senior living community (SLC) residents. The study compared the utilization of E.D. services by a group of SLC residents with high telemedicine engagement, low telemedicine engagement and a control group of SLC residents with no

access to telemedicine. The findings revealed a reduction of E.D. utilization by 28% in the high utilization SLCs, compared to no reduction of E.D. utilization in the low engaged SLC's or control group. One of the essential variables found in the high engaged SLCs was the role of a nurse. According to Gillespie et al., "...the presence of registered nurses on site promoted initiation of telemedicine visits. Registered nurses may have contributed to initiation through their knowledge base, assessment skills, or interactions with residents."⁴⁰

Donabedian Framework to drive the model

Donabedian's framework is used to describe and validate this Employee-Centered Delivery Care Model. Donabedian's Framework: structure-process-outcomes, was introduced in 1966 as a method for evaluating quality of care.⁴¹ Originally developed exclusively for evaluation of medical care, it has been well established in health care research, including nursing, as a strong empirical framework that has reinforced nursing care and clinical practice.⁴²

Donabedian's framework proposes that quality "medical care" can be delivered through structure, process, and outcomes. Structure includes the human, physical and financial resources needed to deliver "medical care".^{26,41} Process includes the methods that providers use to deliver care to a population.³⁹ Finally, outcomes are measured through changes that occur in "health, knowledge, behavior and satisfaction of the target population that can be attributed to antecedent health care."^{26,41}

Donabedian emphasizes that each component of the framework (structure, process and outcomes) is influenced by the previous, highlighting the interdependence of all components. The success of outcomes is influenced by the strength of the structure and process.⁴¹

Employee-Centered Care Model

The model is named "Employee-Centered Care Model". The model is a hybrid approach combining on-site care with virtual health appointments for employees of a self-insured corporation in Portland,

Oregon. A self-insured corporation is defined as an entity that assumes financial responsibility for employee health care costs. The model schematic in Figure 1 shows the relationship of the structure, process, and outcomes of the model acknowledging the goals of the Triple Aim. This schematic specifically highlights how the nurse-employee relationship is activated for the person's minor health problem and care is provided to relieve the problem.

Description of the Model

Applying a patient-centered philosophy, utilizing direct personalized care and telemedicine, this model includes a team comprised of a nurse practitioner, registered nurse and health coach. The objective of this nurse-led model is to provide health and wellness services and education to employees of a self-insured corporation.

Structure

Structure, the first component of the employee-centered model, includes employee, provider and the delivery system. These components are vital to the delivery of care. Employees are defined as individuals that are hired by a corporation and receive health care benefits. The general age of the employees' ranges from 18-65 years old. Providers include a nurse practitioner (NP), via a telemedicine platform, registered nurse (RN) and health coach. Services provided by this team, include diagnosis and treatment of minor illness and injury, triage for major health conditions, preventative and wellness health education, chronic disease management, biometric screening and an annual flu clinic.

The NP is a licensed, board certified health care provider and an employee of the telemedicine platform. The NP diagnoses and treats employees via a virtual telemedicine appointment provided through *Express Care Virtual*. The roles of the on-site RN are integrator and educator. The RN will triage care to *Express Care Virtual* or an urgent care or emergency department, depending upon severity of condition. The RN will also provide chronic disease management and health education. Annually, the RN will

facilitate biometric screenings and a flu vaccination clinic. A minimum of a Bachelor's Degree in Nursing is required. Services provided by a health coach will include activities of health and wellbeing, diet and exercise, and social wellness. Health coaches, "educate and support clients to achieve their health goals through lifestyle and behavior adjustments."⁴³

Services are provided in the workplace setting on a limited basis Monday thru Friday during workday hours. A dedicated private room is utilized for health assessment, chronic disease management and consultation. A public conference room is available for preventative, wellness and health education lectures. Equipment on-site includes Bluetooth and manual stethoscopes, a sphygmomanometer, and educational literature. The RN and health coach will be on-site two days per week. Additionally, an employee's personal computer, smartphone or tablet is required to access the telemedicine platform. Employees can access *Express Care Virtual* for treatment of minor illness and injury with or without the assistance of the RN. *Express Care Virtual's* operates 7 days per week, between the hours of 8am and midnight in Oregon and Washington and 8am-8pm in California. This model does not provide emergency department services. Emergency cases are triaged to the appropriate level of care.³⁷

Process

The second component of the model is *process*, identified by Donabedian as the methods used to deliver care to a population. The primary *process* components of this model are the use of a telemedicine platform offered through *Express Care Virtual* and the role of a nurse integrator fostering a dedicated, caring relationship.

Express Care Virtual provides same-day, online health care visits by a NP. No appointment is necessary. Employees access care via their personal computer, smartphone or tablet device. After online registration is completed, general wait time to start the virtual visit is approximately 4 minutes. Virtual visits allow both the NP provider and the employee virtual face-to-face contact. Pictures can be

downloaded and sent by the employee to the NP provider for additional objective data for diagnosis. Examples of common conditions diagnosed and treated are shown in Figure 2. If needed, x-ray and lab work can be ordered at a nearby facility and prescriptions can be called in to a local pharmacy. A post-visit email is sent to the patient outlining the diagnosis, treatment and plan of care. A follow-up phone call is made by the NP to the employee 1-2 days after the virtual visit. Employees can request a summary of the virtual appointment be sent to their primary care provider. The virtual visit is documented in an Epic electronic medical record. All interactions and correspondences are confidential, secure and HIPPA approved. Reimbursement for virtual visits is a flat fee of \$39.00 per visit to *Express Care Virtual* based on employee utilization. All services are paid by the employer.³⁷

The role of the nurse integrator is essential to the process of the Employee-Centered Care Model. See description in Figure 3. The magnitude of success and utilization of the telemedicine platform is dependent on the presence of a nurse integrator. The nurse integrator develops a trusting relationship and assumes responsibility for achieving the Triple Aim with the employee population. Through relationship building, the nurse integrator assesses the culture and needs of the employee population. Through these assessments, monthly health lectures are offered on topics that directly address the needs of the employees. Weekly blood pressure screenings and health and wellness consultations are offered. The nurse integrator educates the employee population on the role and value of *Express Care Virtual*. When on-site, the nurse integrator can assist the employees with virtual visits. Additionally, the nurse integrator fosters a working relationship with the *Express Care Virtual* providers and the employees' primary care provider. These collaborative relationships reinforce the delivery of safe, quality care for both the employee and provider. The nurse integrator role is vital in driving the outcomes of cost, access, satisfaction and employee health. Reimbursement for services is a monthly retainer of a per employee/per month fee.

Outcome

Outcomes are the third component of the Employee-Centered Care Model. Two types of outcomes are addressed: Triple Aim and employee health. Through the structure and process of this Employee-Centered Care Model, deliverables include an increase in access to care, decrease in costs, and improved employee health and satisfaction. Improved employee health can be subjective and or objective as quantified through employees' feelings about their health and wellbeing and/or supportive health data. Evaluation of the employee experience will be collected through an anonymous evaluation tool. Furthermore, health services rendered at the worksite include increased access, workplace productivity and an enhanced opportunity to deliver culturally competent care to a diverse population.^{3,21,44}

The described components of structure and process in this model positively impact the outcomes of improved access and cost outlined in the Triple Aim. Outcomes are dynamic and dependent upon the relationship between structure and process. Continual improvements are directly related to the multidirectional relationship and strength between structure and process.

Cost Analysis/Employee/Employer Benefit

This model is a prospective example of an innovative model of care addressing the Triple Aim. Further cost analysis between an on-site clinic and this Employee-Centered Care Model demonstrates that the model can be cost effective and sustainable. McCaskill et al., identified the operating expenses for human resources of the on-site clinic at \$574.73 per day (cost includes time and labor for company-employed nurse practitioner, registered nurse and certified nursing assistant). Assuming the clinic operated Monday-Friday, excluding holidays, that would equate to \$144,257.23 per year. During the 1-year study period, a total of 976 employee visits for all diagnoses was documented.²³

Comparing the cost of the Employee-Centered Care Model, if all 976 employee visits were serviced by *Express Care Virtual* and reimbursed at \$39.00 per visit, the total cost of care equates to \$38,064.00.

Additional costs to the model is the contracted monthly retainer of a per employee/per month fee paid for services provided by the registered nurse and health coach. Recommended spending for wellness plan services range \$8.33-\$12.50 per employee employee/per month or \$100.00-\$150.00 per employee/per year.⁴⁵ Using the \$8.33-\$12.50 per employee/per month fee range and the 267 employees provided by McCaskill et al., the total additional costs are \$2,224.11-\$3,337.50 per month or \$26,689.32-40,050.00 per year. Using the provided data, the overall 1-year cost for the Employee-Centered Care Model equals \$64,753.32-78,114.00. This results in a savings of \$66,193.23-79,503.91 per year.²³ These numbers only reflect operating costs and do not reflect the additional savings of health costs for the employer and employee by the model implementation. Added benefit for the employee is free care.

In this paper, we have presented advantages of an Employee-Centered Care Model which include provider utilization, reduced overhead costs, and increased patient-centered/personalized care. Contracting services with a registered nurse, health coach, and an established telemedicine platform, versus employment of an on-site multilayer health clinic team, immediately reduces cost. A registered nurse and health coach on-site, and a virtual care clinic, increase immediate access and convenience to care. Additionally, ensuring patient-centered care reinforces a personalized relationship focused on trust, patient satisfaction and health compliance.²⁴ This model is not intended to replace an employee's primary care provider, but serves as a bridge between primary and urgent care for employees that seek immediate access to care during or after work hours.

Conclusion

In this paper we have presented an innovative Employee-Centered Model of Care designed to improve employee health that addresses the Triple Aim. Specifically, utilizing a nurse-led Employee-Centered Care Model for employees of a self-insured corporation can potentially improve the health of an

employee population while simultaneously reducing cost, increasing access to care, and improving consumer satisfaction. In the time of Patient Protection and the Affordable Care Act, there is a crucial need for innovative models of care to help improve population health. This paper offers one example of an innovative care model and may be applicable in other populations. The next phase will be to implement the model and evaluate it.

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Figure Legends

Figure 1: The Employee-Centered Care Model schematic. Using Donabedian's Framework Figure 1 shows the relationship of the structure, process, and outcomes of the model acknowledging the goals of the Triple Aim.

Figure 2: Examples of common conditions diagnosed and treated by NP via telemedicine platform, *Express Care Virtual*.

Figure 3: Description of the role of the nurse integrator. The role of the nurse integrator is essential to the process of the Employee-Centered Care Model.