Increasing knowledge and uptake of telepsychiatry among North Carolina patients and providers: An example using social marketing as a communication mode

By

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Abstract

This paper describes the barriers and benefits regarding telepsychiatry uptake among patients and providers in North Carolina, and presents a proposal for expansion using a social marketing approach. Thanks to advances in technological innovation, telepsychiatry has become a viable option for mental health patients seeking treatment in locations where psychiatric services are limited, especially in rural areas. In addition to improving patient outcomes by offering a more consistent, and therefore reliable, form of treatment, telepsychiatry has demonstrated significant cost savings in terms of reduced emergency department and inpatient psychiatric care admissions. However, despite its overall benefits, telepsychiatry expansion remains stagnant, primarily due to misconceptions among patient and provider populations. A review of the literature demonstrates telepsychiatry’s effectiveness and suggests ways of reducing its barriers; however, it does not reveal any specific attempts at promoting expansion using a social marketing approach. Because social marketing campaigns have been effective in public health, and because telepsychiatry has shown promise among patient and provider populations, a social marketing campaign might be an effective, and relatively inexpensive way of promoting this service, particularly among those in rural locations. This paper reviews examples of social marketing successes in public health and outlines a plan for how it can be used in promoting telepsychiatry, and particularly why it would be effective in North Carolina, where uptake has lagged. In addition, the paper also explores generalizability of these ideas beyond North Carolina.
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Introduction

The rapid expansion of information technology in public health and medicine has and will continue to change the way health professionals approach their work. Innovations in technology help not only to deliver faster service to patients in need, but they also allow for improved communication among medical workers, patients, and their families (Spetz & Chapman, 2015). An example of how technology has improved health outcomes can be found with electronic health records (EHR). Although they were first introduced in the 1960s, EHR use gained significant momentum in the early 2000s, after the Institute of Medicine (IOM) published reports (1999 and 2001) concluding that thousands of Americans die annually as the result of preventable mistakes. Their 2001 report, *Crossing the Quality Chasm: A New Health System for the 21st Century*, determined that a lack of technological integration and medical advances were significant reasons the nation’s health system was falling behind. The IOM highlighted the degree to which hospitals and physician clinics were siloed when providing treatment and often fail to communicate with each other when handing off information, leaving gaps in a patient’s care plan (Greater Than One, 2013). The failure to exchange information promptly results in confusion among providers, duplication of services, delayed treatment, and unfortunately, premature death. Such uncoordinated care is preventable and therefore, unacceptable.

Telemedicine is another technological innovation that is rapidly changing the way care is provided, particularly among patients living in rural areas.
Although not new, recent advances in technology and connectivity have improved the quality of interactions and increased the feasibility of telemedicine. In its most current form, telemedicine takes advantage of recent hardware and software improvements, and together with the growth of Internet connectivity, it involves connecting physicians with patients in remote locations to provide medical services via a secure video and audio-streaming technology called videoconferencing (American Telemedicine Association, 2012). Although its usage has grown most recently in parallel with the myriad of innovations in technology and communication, the initial form of telemedicine was first introduced in 1924, when a radio news magazine published an image of a doctor speaking with a patient via radio call. One of the first demonstrations of electronic medical transfer occurred in the 1940s, when radiology images were transferred 24 miles between two Pennsylvania townships (eVisit, 2016). In the late 1950s, the University of Nebraska developed a two-way setup via television to transfer information to medical students across campus. A few years later, the university connected with a state hospital to conduct video consultations (Shore, 2015).

In more recent years, the healthcare industry has turned to telemedicine for the efficiency and cost-effectiveness it provides in the delivery of treatment. Healthcare organizations use telemedicine through the use of EHRs to “store and forward” a patient’s personal and medical history, images, reports, and other specific information to outside clinicians via secure email transmission (Center for Connected Health Policy, 2016). The use of EHRs has been beneficial to the healthcare industry, providing increased organization and continuity of care,
primarily because it eliminates the need for coordinated schedules. EHRs have been particularly useful in the exchange of information between primary care providers and specialists, as well as hospitals.

Telemedicine is also used to help patients self-monitor their chronic diseases, such as diabetes, congestive heart failure, COPD, asthma, and cancer (Smith, 2015). Patients can report their vital signs, such as body temperature, pulse rate, respiration rate, and blood pressure from home by means of devices that transmit the information back to their healthcare provider (Johns Hopkins Medicine, 2016). Since lower-level health workers often collect these data, this form of exchange promotes efficiency for both the provider and patient by eliminating unnecessary physician visits.

Perhaps one of the more innovative forms of telemedicine, is telepsychiatry — the practice involving the provision of mental acute care by a provider at a host consultant site to an individual at a referring site (e.g. hospital, physician clinic) through a direct exchange of information via two-way real-time interactive audio and video (Saeed, 2015). This form of psychiatry is thought of as a “maturing discipline,” which takes advantage of modern technology that allows psychiatrists to interact with populations they would otherwise not have access to (Shore, 2015). Since the 1990s, telepsychiatry has been used in universities, prisons, and large health systems, and it has continued to receive increased attention into the 21st Century, primarily for its cost-effectiveness and ability to convey personal health information between two locations in a secure manner, thus protecting confidentiality. The Department of Veteran’s Affairs (VA)
was one of the first major organizations to begin providing telepsychiatry treatment, providing a record-number 650,000 consultations from 2003-2013. It has been recognized as a national leader in delivering these services, and in 2012, it reported that 80,000 veterans used telepsychiatry during more than 200,000 visits (Petzel, 2013). Although it was still not widely applied in the early 2000s, telepsychiatry continued to expand in the general medical care community, as hospitals, community health centers, and private payors began to adopt this form of treatment, and the service is now being implemented in a variety of locations across the country today. Due to the growth of this form of psychiatric care, there are new opportunities to reach underserved populations and improve care for a broad array of patients who were previously denied full access to needed psychiatric services.

Although the lack in psychiatrists is a national issue, it is particularly important in North Carolina, since, with the exception of a few urban regions, the majority of the state is considered to be rural and poor. There are approximately 1.9 million Medicaid enrollees across the state, further implying the need to address increased access to care (Centers for Medicare and Medicaid Services [CMS], 2015).

The primary goals of this paper are: (1) to describe the need for increased mental health treatment options throughout North Carolina, (2) to define barriers and benefits of telepsychiatry for patients and providers, (3) to demonstrate instances where telepsychiatry has been effective, (4) to discuss how social marketing influences public health, and (5) to discuss how the social marketing
approach can be used to promote and sustain telepsychiatry use among patients and providers. By demonstrating the effectiveness of telepsychiatry, particularly among regions where access is limited, I will conclude by proposing a realistic campaign approach to eliminate some of the current barriers associated with implementing this form of treatment to those most vulnerable and where the need is greatest.

**Background**

*Prevalence of Mental Health Disorders*

Mental health disorders are among the most common causes of disability in the U.S. and Canada, and are a significant factor in reduced quality of life and premature mortality (United States Department of Health and Human Services [US DHHS], 2016). In particular, anxiety disorders are the nation’s leading cause of mental illness, affecting more than 40 million adults (Anxiety and Depression Association of America [ADAA], 2014). In 2013, nearly 20 percent of Americans were diagnosed with at least one mental illness (National Institutes of Health [NIH], 2015). Although highly treatable, if left undiagnosed, mental health disorders can become worse and have the potential to cause serious harm in the lives of the people they inflict. One of the most serious examples of the impact of mental illness is suicide, which claims approximately 30,000 American lives each year. These statistics have tremendous implications for addressing mental health issues, particularly among high-risk populations where resources are negligible. (US DHHS, 2016).
**Mental Health Providers in the U.S and N.C.**

The limited number of psychiatrists has become an increasing health concern in the United States over the past several years (Dewan et al., 2014). According to a 2014 departmental report submitted by US DHHS to Congress, 55 percent of the nation’s 3,143 counties have no practicing psychiatrist (Fields, 2014). As of May 2014, the Bureau of Labor Statistics reported a total of 25,080 child and adult psychiatrists nationwide (United States Department of Labor, 2014). Reasons for the national shortage range from noncompetitive salaries, administrative burden from insurance companies, a challenging patient population, and professional isolation (Dewan et al., 2014). As described below in Figure 1.1, most states suffer from an extreme shortage of psychiatrists. In North Carolina, there are 540 psychiatrists statewide left to serve a population of nearly 10 million. In the last decade, North Carolina had a ratio of 1.05 psychiatrists per 10,000 population, ranking 20th nationally (Fraher et al., 2006). While this data is not recent, based on national trends, there is no reason to believe that these numbers have improved since 2006 (it is unclear when updated data will become available).

Given these trends, a key question to be addressed in this paper is how to combat the prevalence of mental health illness in North Carolina. With a high number of Medicaid recipients and rural areas, North Carolina represents a strong example of how valuable telepsychiatry has been in the past and can be in the future for providing access to treatment. It should be noted, since medical
doctors are among the most common provider level allowed to deliver psychiatric care via telepsychiatry in North Carolina, this paper will only consider licensed psychiatrists as “providers” for delivering this form of treatment (as opposed to advanced practice psychiatric nurse practitioners, advanced practice psychiatric clinical nurse specialists, licensed doctorate-level psychologists, or licensed clinical social workers, although they are allowed to deliver and bill for such services [North Carolina Division of Medical Assistance, 2015]).

Figure 1.1

Employment of psychiatrists, by state, May 2014

With approximately 25 percent of the U.S. population living in rural areas, the problems surrounding the shortages in mental health treatment are most severe in states that have large rural populations (Hilty et al., 2006). As Figure 1.2 demonstrates, North Carolina suffers from a maldistribution of psychiatrists, with the majority choosing to practice in the state’s more urban and affluent regions (Saeed, 2015). For example, although the Coastal Plain region of the state includes 41 counties, only three have 30 or more psychiatrists. Of these three counties, Pitt and New Hanover are home to East Carolina University and the University of North Carolina at Wilmington, respectfully, with Seymour Johnson Air Force Base located in Wayne County. It should be further noted that East Carolina University (ECU) contains a medical school, offering a specialty in psychiatry and behavioral medicine (ECU, 2016). The remaining 38 Coastal Plain counties are very rural and have approximately five or fewer psychiatrists, demonstrating the distance residents must travel to seek mental health treatment.

According to the North Carolina Center for Public Policy Research (NCCPPR), in North Carolina, 28 percent of counties do not have a single psychiatrist, and 18 percent only have one psychiatrist, leaving patients no choice but to seek treatment at their local emergency room (NCCPPR, 2014). As of 2014, 35 North Carolina counties have been classified as “mental health professional shortage areas” due to the low ratio of mental health professionals in terms of population (North Carolina Department of Health and Human Services
Such shortages have a tremendous impact on rural communities, resulting in treatment that is delayed or not delivered at all.

**Figure 1.2**

![Map of Psychiatrists per 10,000 Population in North Carolina, 2013](image)

Source: N.C. Health Professions Data System, with data derived from the N.C. Medical Board, 2013; U.S. Census Bureau and Office of Management and Budget, March 2013.

As with other health conditions, such limited access to psychiatric services results in patients having to visit their local emergency room for care during a mental health crisis. Visiting the emergency room is often thought of as a non-preferred form of treatment for various reasons, including longer patient wait times, loss of physician familiarity, frequent readmission, and increased cost (NCCPPR, 2014). However, the majority of emergency departments in North
Carolina do not even have a full-time psychiatrist, leading to serious implications for patients presenting in crisis (Saeed, 2015). In addition, North Carolina statewide claims data demonstrates that patients who receive treatment earlier during the course of their crisis are less likely to be involuntarily committed to a psychiatric inpatient facility.

**Overall Benefits of Telepsychiatry**

One of the recommendations that can be made to address the national shortage of psychiatrists, and in particular North Carolina, is to expand the use of telepsychiatry, which will also have several other benefits summarized here.

In addition to telepsychiatry’s practical benefits, such as reduced time off from work, decreased travel time and shorter waiting room periods, Malhotra et al. (2013) looked at the potential telepsychiatry has at closing the “mental health gap” that exists between the high number of mental health disorders and the low availability of specialized mental health services. Their review focuses on different models of telepsychiatry in India, and includes an in-depth look at the different parameters for evaluating the effectiveness of telepsychiatry, including communication modes, acceptability and satisfaction, reliability, outcomes, cost-effectiveness, as well as any legal and ethical challenges related to this type of service. Since the concept of telepsychiatry is relatively the same no matter where it is implemented, the findings of this article serve as a contribution to the creation of a successful campaign highlighting the benefits of the service at both the patient and provider levels.
Their research is also salient since, as the authors suggest, psychiatry is unique to medicine because the human patient-therapist interaction is integral to success. Since the premise of telepsychiatry involves the delivery of care via electronic videoconferencing equipment, this form of treatment has been debated about whether or not the field of psychiatry renders itself to this mode of delivery. While one might assume “some care is better than no care,” we must strive to ensure telepsychiatry provides the quality of care needed to truly improve patient conditions and that the loss of in-person face-to-face interaction does not impede patient outcomes.

In evaluating patient satisfaction to telepsychiatry, Campbell et al. (2015), found that after distributing a questionnaire to 84 randomly selected telepsychiatry patients in remote locations in Ontario, Canada, that 92.9 percent found the session to be “as if the physician was physically present in the room”. When asked how they felt about their session, 95.2 percent said they were comfortable with the service, and 98.8 percent reported they would use the service again in the future. These results are promising and are consistent with other evaluations conducted among current patients. Further, these findings indicate the importance of continuing efforts at increasing knowledge and awareness among patients in rural communities, as well as the value a marketing campaign could bring toward achieving these goals.

The article by Campbell et al (2015), demonstrates the value formative research could bring to a campaign promoting telepsychiatry. Allowing a sample of potential patients to first test the service and then following up with focus
groups, individual interviews, and surveys to determine feedback have the potential for creating powerful messages to be used in marketing materials geared at both potential patients and providers.

**Effectiveness of Telepsychiatry: A Case Study**

Grantham (2010) interviewed providers at the David Lawrence Center (DLC) in Naples, Florida, to learn how telepsychiatry was affecting their staff and patients. Through several partnerships at the community level, DLC was able to address care access concerns by offering telepsychiatry to patients in Immokalee, a community of 20,000, primarily low-income, agricultural workers nearly 50 miles away. Before the service was offered locally, patients had to drive nearly an hour one way to seek behavioral health care, and because transportation in the community was limited, many had no choice but to go untreated for their condition(s). In addition, prior to telepsychiatry implementation, clinics like DLC only had a few psychiatrists and clinical specialists on hand at any one given time. Previously, DLC would send out a psychiatrist to conduct a session, limiting the ability to best match the patient with a provider. In addition to increased access, the new telepsychiatry service provided two additional benefits – first, keeping the provider based in the clinic promoted efficiency and reduced costs. Second, the new service allowed the clinic to determine which provider would be the “best fit” for a particular patient based on the patient’s personality and specific needs.

Grantham also addresses the concerns providers had initially before using the service. Clinicians were fearful of equipment failure in-session and that the
quality of service using a camera and on-screen technology would be weakened, therefore causing it to be less effective than an in-person session. However, providers were relieved to learn the technology worked very well and the clarity was just as if they were sitting face-to-face (in-person) with a patient. As a result, provider questions and concerns about the new service were put to rest, at least in regard to feasibility of providing the service. Finally, providers had initial concerns about insurance reimbursement, but were relieved to learn that Medicaid (and other payors) covered the cost of treatment at the same rate they would for an in-person session. On the patient side, patients at the Imokalee primary care clinic expressed a high-level of satisfaction with the service. The Imokalee clinic saw an increase in the number of kept appointments, with young people responding particularly well to the new form of treatment. At the community level, the Imokalee clinic saw a 200 percent increase in services delivered during the first two months of implementation.

Other Factors Supporting Telepsychiatry Expansion

It should be noted that although the United States spends more money per capita on healthcare than any other developed nation in the world, it has worse outcomes on a variety of quality indicators, including mental health care (Harvard Medical School, 2003; The Commonwealth Fund, 2015). Although data are limited, there is clear evidence that telepsychiatry is beneficial and acceptable to patients and providers. There is also strong evidence of cost savings; therefore, the remaining challenge is how to study telepsychiatry
expansion further, including how to better market this form of treatment for generating a stronger linkage between providers and those most likely to benefit from this service — at-risk patient populations where access is limited.

The Patient Protection and Affordable Care Act of 2010 (ACA) has encouraged the innovation of new models of care that have the potential to improve the nation’s overall health system performance in terms of cost, quality and access (Landry and Erwin, 2015). In this sense, telepsychiatry can be viewed as an integral part of the solution to the existing challenges in mental health, by delivering quality psychiatric treatment through a delivery mechanism that addresses several patient barriers.

In terms of behavioral health specifically, the ACA has called for most individual and small employer insurance plans (including those offered through the Health Insurance Marketplace) to include mental health and substance abuse disorder coverage (US DHHS, 2015). While this is a victory among those with employer-based or private plans, not all state Medicaid programs provide such coverage to their recipients. Fortunately, telepsychiatry services are covered under North Carolina’s current Medicaid program guidelines (East Carolina University Center for Telepsychiatry and e-Behavioral Health, 2015).

**Telepsychiatry in North Carolina**

With a significant number of people suffering from and going untreated with behavioral health disorders, particularly in rural locations, North Carolina lawmakers began turning their attention to addressing the state’s shortage in
mental health care. Again, until recently, many in this population were left with the decision to go untreated for their illness, or seek treatment at their local emergency room. However, as stated previously, the majority of emergency departments do not include a house psychiatrist, resulting in delayed and often times ineffective treatment (Saeed, 2015). In an effort to increase access to mental health services through use of a specialized form, telemedicine expanded in 2013 to include psychiatric services, provided through partnerships with host psychiatric facilities and recipient primary care clinics and hospitals to provide mental health assessments to patients in need of urgent attention (General Assembly of North Carolina, 2013).

That same year, the State House approved a bill directing the Office of Rural Health and Community Care (ORHCC) to oversee the North Carolina Statewide Telepsychiatry Program (NC-STeP), launched Jan. 1, 2014, to address the state’s psychiatrist shortage in emergency departments (NC DHHS, 2013). Since its inception, NC-STeP has resulted in a cost savings of nearly $1.1 million (NC DHHS, 2013). Over the last two years, the program has demonstrated both a high quality of care through high customer satisfaction, and cost-effectiveness, with a projected savings of nearly $4.5 million to the state’s Medicaid program alone (Saeed, 2015). While quality of care is the single most important outcome, the recorded and projected cost savings telepsychiatry brings to North Carolina are also quite critical to achieving support from all stakeholders, including lawmakers. In addition to Medicaid savings, NC-STeP predicts nearly
another $1.7 million in savings between third-party payors and local sheriff’s departments through overturned involuntary commitments (IVC) (Saeed, 2015).

However, the year before NC-STeP was created, efforts were being placed toward the delivery of telepsychiatry programs at the primary care level. Among those were managed care agencies, such as Community Care of North Carolina (CCNC), a statewide non-profit that coordinates the care of nearly 1.4 million Medicaid recipients (CCNC, 2016). In 2012, one of its 14 provider-driven networks, Community Care of the Sandhills (formerly Sandhills Community Care Network, Inc.), received operating funds from Kate B. Reynolds Charitable Trust, to support expansion of telepsychiatry to 40 primary care practices serving low-income patients across a seven-county region (Kate B. Reynolds Charitable Trust, 2012). In turn, Community Care of the Sandhills was one of the first agencies to offer telepsychiatry services to patients through their primary care provider (Community Care of the Sandhills [CCS], 2014). Since that time, approximately 700 patients across 32 clinics have received mental health evaluations and treatment within their local primary care provider’s office.

It should be noted that success can be measured in various ways, and while it is crucial for telepsychiatry to remain a cost-effective approach to psychiatric care, the most important indicators of success should be defined in terms of delivering quality care and patient satisfaction.

The CCS primary care program has resulted in high customer satisfaction, among both patients and providers, with nearly 94 percent of patients reporting they were pleased with their experience. The program’s success has captured
the attention of area hospitals and behavioral health agencies, which have formed their own programs based on the CCS model. In response to the continued success, other CCNC networks and outside hospital systems have since implemented telepsychiatry services at the primary care level within their catchment areas. As the CCS program continues toward the goal of making telepsychiatry sustainable within their network, administrators have formed partnerships with healthcare informatics companies and behavioral health agencies outside their region (CCS, 2014).

**Implications for Increased Awareness in North Carolina**

Despite its overall effectiveness in different clinical environments, telepsychiatry expansion has been slow to develop throughout North Carolina (NCCPPR, 2014). Reasons for gradual implementation can be attributed to both provider and patient populations. Many patients, particularly those in rural communities, are reluctant to utilize it because of privacy or safety concerns since treatment is provided through videoconferencing. In general, patients remain unfamiliar with the service because their provider fails to introduce telepsychiatry as an alternate form of mental health treatment.

On the opposite end of the customer spectrum, provider hesitations lie around reimbursement concerns, unfamiliarity with the service and/or how it works, concern over possible malpractice lawsuits, interstate licensure, and may question the quality of care being delivered (Saeed et al., 2012). For both patients and providers, a primary concern over the loss of in-person interaction is
often the primary barrier when considering this form of treatment (NCCPPR, 2014).

While these concerns are certainly understandable, especially among older patients who are more likely to already be unfamiliar with technological equipment, the fact remains that telepsychiatry has shown to be an effective form of treatment, therefore, making it difficult to ignore in a time where the lack of access to behavioral healthcare commands attention. To ensure sustainability, state public health officials and administrators are now faced with the challenge of better promoting this service to patient and provider populations, particularly those in rural regions.

Through an increased awareness of the need to expand telepsychiatry throughout North Carolina, in particular, to those regions where clinicians are scarce and patient access to resources is limited, as well as an effort to develop a more targeted approach, telepsychiatry has the potential to reduce the inequities that exist among the many children and adults currently suffering from behavioral health disorders, providing them with a higher quality of life.

**Overall Barriers to Telepsychiatry Uptake in North Carolina**

The majority of barriers that exist throughout North Carolina are the same among patients and providers nationwide. Most of these obstacles are simply misconceptions about telepsychiatry and misinformation that surrounds this form of treatment. First, many patients in rural areas are still unfamiliar with the service or are reluctant to utilize it because of privacy or safety concerns since treatment
is provided through a videoconference format. Providers fear they will not be reimbursed correctly, are unfamiliar with how telepsychiatry works, are concerned the technology will cost a significant amount of money to purchase and maintain, are worried about possible malpractice suits since they are required to sign off on prescriptions, interstate licensure, and may question the quality of care being delivered (Saeed et al., 2012). Finally, the number one concern both patients and providers have is a loss in the quality of treatment being provided (NCCPPR, 2014).

However, the literature demonstrates the fears surrounding these barriers can be overcome by increasing awareness among both patient and provider populations about the ease, convenience, and value telepsychiatry brings to improving mental health outcomes.

**Barriers Among Specific Populations**

Recent research by Bujnowska-Fedak and Grata-Borkowska (2015) is helpful in identifying the specific barriers that exist among a specific and highly important population — the elderly. While the benefits of telepsychiatry are becoming more obvious, we must remain mindful that the elderly are among the most likely to be fearful of using such technology, especially when it comes to their health. As the authors suggest, personalization is highly important and although telepsychiatry does provide direct, tailored care, the medium lends itself to beliefs that care is not truly personal and that others may be involved in or may be aware of the treatment process. To combat this false belief, the authors
suggest addressing certain precautions before implementing the service among this population. They suggest training potential patients to provide familiarity, as well as ensuring the service is offered in convenient locations (senior centers, retirement facilities, nursing homes), in addition to primary care clinics, as “selling points” to ensure faster adoption of the service among the aging population.

Because independence is a commonly held value among the elderly, promoting a telepsychiatry campaign that addresses the autonomy it provides, while maintaining effective treatment through improved outcomes, has the potential for increased response and success among this population. Taking these recommendations into consideration, the health belief model will serve as a helpful guide in developing a campaign that ensures perceived threats and severity are minimized, while perceived benefits outweigh any barriers to action.

Finally, a social marketing campaign promoting the convenience of telepsychiatry would address racial and financial disparities that exist among families with children with mental health needs. In a study to determine if differences exist among parents receiving Medicaid in how they determine mental health needs for their children, Rose et al. (2010) found that African American parents receiving Medicaid are far less likely to report a need for services than Caucasian parents receiving Medicaid. The authors suggest that a flat out effort to increase child health coverage to be the best means of reducing the racial disparities that exist among children with mental health needs; however, since all children in North Carolina are already required to receive health coverage, this paper proposes the development of a targeted campaign
seeking to promote the convenience and ease of telepsychiatry to be far more effective at increasing parental knowledge.

For parents facing tight work schedules and/or transportation limitations, telepsychiatry literally “opens a door” by providing an opportunity for their child to have easier access to treatment. With a stronger awareness of how telepsychiatry can positively impact their child’s well being (through a campaign approach), parents are likely to feel more empowered to use this form of treatment so their child can go on to live a more healthy and prosperous life.

Social Marketing: A Defined Approach to Increasing Telepsychiatry Uptake

There is no doubt that addressing the issues surrounding telepsychiatry expansion are challenging, primarily because they involve increased spending at a time when funds are limited. However, because of North Carolina’s unresolved mental health shortages, a social marketing campaign promoting the use of telepsychiatry has the potential for a high return on investment in terms of increased access to care and savings through the reduction of preventable hospital admissions. The best option to addressing this need is to promote a universal and more thorough understanding of this form of treatment and its value through greater communication. A targeted communication project can ameliorate these challenges by increasing awareness among providers and patients regarding the safety and benefits of telepsychiatry. This paper presents a proposal for how to address these communication issues, namely by providing a roadmap for defining the value of telepsychiatry, the problems surrounding its
expansion, and the methods to combat such challenges by means of a social marketing approach applied within a public health context. By providing a thorough background, along with proposing creative and realistic solutions, such a framework will not only highlight the issues surrounding mental health shortages, but will also promote broader discussions among stakeholders about the need to increase the options for delivering psychiatric treatment. Such conversations will likely lead to greater awareness of the value in expanding telepsychiatry services throughout North Carolina, for the primary purpose of improving mental health outcomes.

Although communication methods and channels would be similar, information should be tailored to each group, as these audiences are very distinct in how they view telepsychiatry and the perceived barriers toward utilizing the service. Another aspect of developing a successful campaign is to incorporate the use of health communication theory as the conceptual foundation. Theories give rise to important determinants for the development of health-related messages, and will serve to ensure that such messages guide individuals through the process of behavior change (Noar, 2006). Individual, interpersonal, and community-level determinants relating to specific behaviors and behavior change have been considered in this campaign proposal. Theories for guided campaign development include aspects from both the health belief model and transtheoretical model of behavior change.

Through improved and more targeted communication strategies, such as the social marketing approach, telepsychiatry has the potential to impact many
children and adults currently suffering from behavioral health disorders, allowing them the possibility to live more fulfilling lives.

The intervention piece of this proposal will employ traditional communication methods for educating providers, patients, and their families about what telepsychiatry is and how it is beneficial, particularly in communities where disparities are prevalent. Provider-framed messages will focus on the benefits and ease of implementing the service in their clinics. The final arm of this intervention aims to provide further education for nurse and social work care managers employed with care management agencies, for identifying potential patients and conversing with them about telepsychiatry in a safe and comfortable environment. Because many care managers meet with patients during home visits, uneducated care managers present major missed opportunities for promoting telepsychiatry to patients who would otherwise not know about this form of treatment.

Although the majority of these communication modes and mediums have been used in the past, applying them in a social marketing context is key to generating material that removes the barriers associated with telepsychiatry, leaving both patients and providers a chance to more clearly focus on the benefits when evaluating their available treatment options. This paper seeks to spell out the social marketing approach used in public health, by suggesting a specific campaign proposal for achieving the overarching goal of expanding telepsychiatry throughout North Carolina.
Through these aims, I anticipate telepsychiatry to become a more commonly known and accepted form of treatment, and, as a result, an increased number of providers and patients will be willing to try hosting and using this service. I further predict that with wider implementation, the quality of mental health care throughout North Carolina will increase dramatically, through improved patient experiences, improved overall health among the mental health population, and significant reductions in unnecessary mental health expenditures.

History of Social Marketing and Use In Public Health

The convergence of commercial marketing and social marketing occurred in the late 1960s and early 1970s, when advocates of change began applying traditional marketing techniques to health education campaigns (Manoff, 1985). Although the field did not yet have an official title, proponents of change began relying more and more on the use of marketing techniques to advance social causes. In 1971, the term “social marketing” was given to the application of marketing practices for nonprofit and social purposes, by marketing professor Philip Kotler and colleague Gerald Zaltman. The two described it as, “a promising framework for planning and implementing social change” (Kotler and Zaltman, 1971, p. 3). As the environment of communication continues to change over time, public health has and should continue to take advantage of the social marketing approach as a means of changing attitudes and behavior, primarily by social exchange theory (e.g. cost-benefit analysis) (Ling et al., 1992).
Despite the strides social marketing has made since its formal inception nearly 50 years ago, it is still an often-misunderstood branch of public health research. Because marketing is generally thought of in terms of for-profit practices, the field is sometimes thought to clash with the teachings and social purpose of public health (Ling et al., 1992). And while the two forms of marketing share similar conceptual frameworks, the primary difference lies with the intended gain. Traditional marketing seeks to produce financial gain through the selling of goods and services, while social marketing should contribute to societal gain, generally by means of influencing behaviors for a positive outcome (Lee and Kotler, 2011).

Because of its targeted approach of influencing and changing behaviors, social marketing has tremendous implications for tackling many of the intractable problems existing in public health (e.g. childhood obesity, the delivery of clean water to impoverished populations, vaccine uptake, smoking cessation). Social marketing is also unique in that it can be used to influence behaviors in all directions. Since public health is primarily geared toward prevention at the population level, social marketing can be used to influence behaviors upstream through social or policy change. Likewise, it can also be used to produce changes downstream, by treating or educating populations to change negative behaviors. Finally, social marketing can work sidestream, by allowing partner organizations to collaborate for promoting the best environment possible to ensure a continuum of positive outcomes.
The literature is full of numerous examples of successful social marketing campaigns. For example, the Centers for Disease Control and Prevention (CDC) has developed and implemented numerous campaigns with the purpose of promoting healthy behaviors. In the early 2000s, an estimated 9 million children were considered to be obese. In response, the CDC ran a youth media campaign titled, *VERB: It’s What You Do*, in which “tweens” (ages 9-12) were targeted to prevent childhood obesity by maintaining and increasing physical activity (Centers for Disease Control and Prevention [CDC], 2010). The program ran from 2002-2006, at a total cost of $350 million, and demonstrated effectiveness at achieving its primary goals of increasing knowledge, and improving tween attitudes and beliefs about the importance of being physically active. In the first year alone, the campaign achieved 74 percent awareness among its target audience (Huhman et al., 2005).

Launched in 2012, *Tips from Former Smokers* was the first-ever paid tobacco education campaign, in which the CDC attempted to raise awareness of the negative health effects associated with smoking through a series of television advertisements (CDC, 2016). In an attempt to promote smoking cessation resources, the CDC included a hotline number and link to their website, which ended up receiving 660,000 unique visitors, and nearly 1.5 million page views. The CDC estimated that approximately 1.64 million people attempted to quit smoking as a result of the 2012 campaign (CDC, 2016).

While “true success” of permanent behavior change is nearly impossible to measure, particularly on a large scale, the fact these campaigns stimulated
such widespread interest is promising and provides evidence that when implemented correctly, health campaigns can be successful, and they should be considered as a valuable method when behavior change is warranted.

Of course, campaigns do not have to operate on such a large, national scale. Numerous campaigns have been conducted at the regional level and managed under far stricter budgets. As with any campaign, the keys to engagement are to ensure the structure is consumer-focused and that interventions meet people where they are in regard to their potential for change.

**Steps in Strategic Social Marketing Planning**

Once an issue has been identified and a situational analysis has been conducted to determine the internal and environmental forces impacting the issue, researchers then work to discover the groups most likely to benefit from promotional techniques. Much like commercial marketing, the social marketing framework is primarily focused on promoting efforts to a specific subpopulation of all consumers, called a *target audience*. Although there are a number of ways to carry this out, it is generally achieved through audience analysis and consumer research data. Successful social marketing campaigns follow a systematic process that involve careful evaluation of what the consumer wants and needs — as opposed to what campaign designers *think* they want and/or need (Lee and Kotler, 2011). After target audiences are selected, and specific wants and needs are defined, researchers can then begin to devise a plan of behavior objectives and goals for influencing the target audience to take action. While most
objectives are aimed at changing behaviors, depending on the campaign, they may also be defined as knowledge or belief objectives. An important aspect of this step is to ensure that goals and objectives are SMART — that is, they are specific, measurable, attainable, relevant, and time sensitive (Lee and Kotler, 2011). Although they are not typically monetary, incentives are often used to stimulate consumer interest in social marketing campaigns.

Another aspect of strategic planning involves the careful examination of influences that would impact the target audience from being able to carry out the intended goal. Influencers, such as barriers, benefits, or the competitor (if present) should be studied and accounted for when developing a campaign strategy by maximizing benefits, minimizing barriers, and outnumbering the competition.

Decisions made during the development of campaign goals and objectives are instrumental in the subsequent decisions that are made using a unique blend of a variety of interventions, known as the marketing mix — product, price, place, and promotion (Ling et al., 1992). Depending on the dynamics of the target audience, this structure (also known as the 4 P’s) allows interventions to work together toward achieving a primary goal.

The final steps of a typical social marketing campaign include the development of a monitoring plan for evaluation, the establishment of an itemized budget, and completion of the implementation plan.

Proposal for N.C. Telepsychiatry Implementation
It is important to note that since this is a campaign proposal, most of the steps listed are those believed to be most influential at increasing telepsychiatry uptake among patients and providers. Without secure funding, it is impossible to carry out any of the aforementioned steps, and therefore know exactly how a campaign should be structured and delivered; however, both the literature and history of telepsychiatry in North Carolina give rise to the fact that a targeted approach would likely ameliorate many of the issues surrounding telepsychiatry expansion.

Since the background, focus, and target audiences of this campaign have already been defined, the proposal will pick up with the work to be carried out at both the patient and provider levels, and spell out the interventions believed to be instrumental in increasing telepsychiatry uptake throughout North Carolina.

**Formative Research with Target Audience**

Successful social marketing campaigns allow members of the target audience to theoretically “guide” campaign development. Because we already know increased telepsychiatry acceptance and implementation lends itself naturally to two specific audiences — patients and providers — again, this campaign proposal will focus on the promotion of efforts to those audiences, specifically among the Medicaid population.

To ensure the campaign delivers what patients and providers both want and need, focus groups and individual interviews should be conducted to gain a more current and thorough understanding of both patient and provider concerns.
This proposal suggests distributing surveys and hosting focus groups and individual interviews before the actual development of any campaign materials, as well as after they are printed, to test their effectiveness among the very members they are intended to reach. It is important to note that such efforts should be made among providers and patients living in rural areas, in particular, to Medicaid providers and recipients. In doing this, researchers will learn more about what has kept these specific audiences at bay from using telepsychiatry, and can begin to develop materials specific to the barriers that prevent them from utilizing this service.

**Campaign Materials and Intervention Techniques**

Based on survey, interview, and focus group feedback, the suggested intervention piece of this project would include radio commercials and public service announcements (PSAs), television commercials with provider and patient testimonials, as well as print materials (flyers, posters, and brochures) for educating the general public about what telepsychiatry is and how it is beneficial, particularly to those in rural communities. Provider-framed messages will focus on the benefits and ease of implementing the service in their clinics, as well as discuss the simplicity of reimbursement. The proposed intervention also includes demonstration videos to be broadcast in waiting rooms at local primary care clinics, emergency departments, and health departments throughout the state.

This proposal also includes the development of a universal provider toolkit, for distribution to clinicians still undecided about the value of this form of
treatment. While this is already being done in some locations of the state, it should be implemented on a widespread basis to ensure maximized promotion of services among this population. In addition to providing the benefits telepsychiatry can bring to a practice (improved outcomes, increased patient load, increased practice revenues, etc.), it would address common questions and detail the steps involved in the delivery of treatment, as well as include frequently asked questions in regard to reimbursement. The toolkit would also serve as a hub for contact information should providers want to learn more about how to offer telepsychiatry in their practices.

The final arm of the intervention process aims to provide further education for nurse and social work care managers, employed with Community Care of North Carolina (CCNC), for identifying potential patients and conversing with them about telepsychiatry. Although the literature fails to stress the need for this, my personal experience working at CCNC has led me to make personal evaluations of how care managers can better promote this service. Because many CCNC care managers meet with patients during home visits, uneducated care managers, who either do not know enough about telepsychiatry, or are hesitant to discuss behavioral health issues with patients, present major missed opportunities for promoting this service. These same care managers would also be trained to serve as liaisons for working with potential providers/practices to assist in promoting the service throughout North Carolina. Care managers would be trained to promote telepsychiatry’s increased ability to match patients with providers, based on personality types. They would also be encouraged to make a
stronger effort to promote the service to the elderly, by emphasizing it’s ease and demonstrating the success it has had among other elderly populations. Focus groups should be held among the care manager population to gather feedback on how to best improve this process for increasing uptake, and at the very least, a series of training courses should be offered to care managers to learn how to have improved conversations surrounding increased access to behavioral health resources and mental health in general. Finally, CCNC network care managers can further promote telepsychiatry within primary care practices by providing technical assistance and periodic quality improvement data with detailed feedback on the effectiveness of telepsychiatry among their patients.

Through this aim of working with CCNC care managers, it is anticipated that telepsychiatry will become a more commonly known form of treatment among the North Carolina Medicaid population, and, as a result, an increased number of patients and providers will be willing to try using and hosting this service.

The Use of Theoretical Models for Guided Development

The main focus of this social marketing strategy is to change the attitudes and beliefs patients currently hold about this form of mental health treatment. With this goal in mind and given the evidence within the literature, the health belief model (HBM) and the transtheoretical model (TTM) of health communication are likely to be the most appropriate theories for guiding the
development of a campaign that would target various age groups among patient and provider populations.

Fortunately, the literature does provide enough information regarding the barriers and misconceptions the target population holds about telepsychiatry, thus, placing importance on the utilization of HBM constructs to work in conjunction with the development of the campaign’s framework. The HBM states that personal health behaviors are influenced by three factors — general health values, specific health values, and beliefs about potential consequences of the health problem (Lee and Kotler, 2011). General health values refer to interest and concern about one’s health, while specific health values allude to one’s vulnerability to a particular health threat. During this process, an individual begins to weigh both perceived benefits and perceived costs. The HBM also purposes that if a person feels susceptible enough to a condition and the severity is high, that a cue to action (a prompt), will likely result in behavior change (California STD/HIV Prevention Training Center, 2015).

The HBM will serve as a framework in helping to highlight and maximize benefits, while also helping to identify and minimize barriers to promote positive behavior change toward receiving this type of treatment. Campaign materials will serve as cues to action, for prompting engagement into the suggested behavior (using telepsychiatry). Such materials will also seek to increase patient self-efficacy, by clearly stating how simple, convenient, and effective the process is. On the provider side, the HBM will serve in a similar fashion, by helping to address the barriers and benefits of offering the service. Separate campaign
materials will be developed to encourage self-efficacy, primarily through the minimization of perceived barriers.

The TTM will also serve as a framework, and would be used in conjunction with the formative research process (see above) for developing specific approaches for targeting patients and providers who fall into the distinct areas across the stages of change spectrum. While major segmentation variables (e.g. geographic, demographic, psychographic, and behavioral) will be used for classifying the target audience, the TTM will work to identify and assess where the majority of target audience members are in the stage of change process (Lee and Kotler, 2011). The care management education program would also seek to determine where patients and providers fall in this change spectrum.

Given the current uptake of telepsychiatry in North Carolina, the proposal is structured under the hypothesis that the majority of both patients and providers fall in the contemplation phase. This phase refers specifically to those that acknowledge either they themselves have a problem (or that a problem exists) and are thinking about actions to solve it (Lee and Kotler, 2011). Many patients may feel they are in need of psychiatric services, but are stuck in the process of how to receive treatment, given psychological and physical barriers. Providers may realize the need of offering increased treatment options to such patients, but are bogged down with how they should offer such treatment in their practice. The primary goal of this campaign is to move audience members along the stages of change, until the desired behavior — telepsychiatry uptake — has been achieved.
Learning where target audience members fall in the stages of change is critical to the development of successful campaign materials. For example, a brochure might be beneficial for a patient in the preparation or contemplation stages, but a different approach (e.g. PSAs or patient testimonials) may be needed to capture the attention of someone in the precontemplation stage.

Again, feedback collected from data (focus groups, interviews, and surveys) in the audience segmentation phase will be helpful in determining the different stages most patients and providers are likely to fall in, which will then guide the development of specific materials and other marketing approaches.

**Campaign Evaluation**

Since it is important to continually assess the effectiveness of activities and outcomes of any new healthcare methodology, a thorough process evaluation should be developed in the beginning stages of the campaign process. The purpose of an evaluation plan is to identify overall campaign success, as well as to provide a timeline of intervals when measurements will be recorded. Collecting and recording such data will also be helpful later when preparing written reports to campaign funders describing how results were achieved.

This proposal includes the use of output measures (e.g. campaign activities [intervention approaches]); outcome measures (a record of responses and changes in knowledge, beliefs, and behavior among the target audiences; and impact measures (contributions to the effort’s purpose [increased uptake of
telepsychiatry, improved access to behavioral health resources, reduction in unnecessary costs, etc.].

Finally, an overall campaign evaluation should be developed to evaluate whether campaign objectives were met, as well as for determining whether such a campaign is generalizable to other areas of the nation, as these are critical measures that determine future funding.

**Discussion**

This paper presents the numerous challenges surrounding the expansion of telepsychiatry, largely because such a project would require additional spending with already limited funds. Although true nationally, spending concerns are especially prevalent in North Carolina, which is the primary region of focus in this paper. However, the benefits telepsychiatry has demonstrated among patients living in rural North Carolina strongly suggest that a project to increase services would have a significant return on investment by improving the lives of many suffering from mental health illness. Although in-person, face-to-face communication between patients and physicians is likely to always be considered the ideal format for treatment, telepsychiatry opens a door for many patients previously suffering from limited access, by offering a virtual format in which patients can receive quality treatment in a familiar environment that is close to home. Because telepsychiatry would be continuously available to patients through their primary care provider, this form of treatment has the ability to continue at decreasing unnecessary health spending, primarily by reducing or
eliminating inappropriate emergency department usage, and more importantly, it has the ability to continue improving outcomes, by allowing patients to live more healthy and prosperous lives.

While there are several pathways to achieve increased uptake, this paper shows that, similar to other public health initiatives, a social marketing approach has the potential to promote a universal understanding of this form of treatment, along with the value it brings to both patients and providers, making it a sage and sensible choice for how to expand services throughout North Carolina. In addition, because social marketing’s unique structure allows target audiences to feel understood and empowered, namely by using their own feedback to then drive campaign development, it is believed this approach has an increased potential for reducing the misconceptions many patients and providers currently feel about telepsychiatry.

Although all elements of a social marketing campaign are critical in order to ensure maximized potential among the target population, implementing evidence-based process and outcome evaluations are essential to ensuring the campaign achieved its original goals. In addition to measuring the success of local programs, and identifying ideas for improvement, the evaluation process will also have the additional benefit of serving as a tool to facilitate generalizability among populations and audiences beyond that of the original campaign. While it is believed a social marketing campaign would be effective at increasing knowledge and uptake in North Carolina, it is important for developers to bear in mind the need to structure a campaign that is transferrable to other populations
and regions. Based on what is discovered through a social marketing campaign in North Carolina, developers can then apply that knowledge when expanding to other regions.

In addition to the costs of expanding telepsychiatry, one must also consider the cost of a social marketing campaign, as this expense would be subject to the same funding limitations discussed above. However, before funding sources are determined and budget estimations can be made, this paper takes the first step of outlining what a social marketing campaign must include. Again, since successful social marketing campaigns involve a fluid process, and the drivers result from the initial responses recorded from target audiences, it is impossible to plan every detail of a social marketing campaign merely through a proposal. Without knowing the amount of funding that would be allocated for campaign development, one can only speculate on the degree of effectiveness a telepsychiatry campaign would bring to the behavioral health arena. However, it is believed that an investment in a social marketing campaign would be the first step toward longterm returns, and the more funding that is allocated to such a project would therefore have an increased ability to impact larger numbers of people, and, as a result, increase effectiveness potential. Such conjecture is derived primarily through an evaluation of the current literature, as well as by observing the success telepsychiatry has brought to other regions and populations outside North Carolina.

Another challenge impacting both this social marketing proposal and the expansion of telepsychiatry in general is the lack of data surrounding the cost
savings telepsychiatry has generated in the area of primary care. Since telepsychiatry has been implemented in primary care for some time, this data is an essential element in demonstrating the need for additional funding to increase expansion. While efforts to implement this service are currently being funded, it is difficult to imagine that increasing the number of sites and patients served are the only outcomes being measured. While these are crucial elements surrounding expansion of services, keeping a track of the savings telepsychiatry brings — primarily through reduced emergency department and inpatient psychiatric admissions, would only augment the cause of expanding the service throughout North Carolina. One of the most difficult aspects of estimating and obtaining adequate funding to support telepsychiatry expansion lies around the ambiguity of the return on investment; therefore, keeping track of primary care cost savings is imperative to securing funding both now and in the future. Therefore, this paper strongly suggests an increased effort to track and monitor telepsychiatry cost savings at the primary care level, much like the work being done to track cost savings in the emergency department setting.

Finally, a challenge that is beyond the scope of this paper is the need for policy change. The primary goal of this paper is to define the need for telepsychiatry expansion. It then provides an outline for how to do this using a social marketing approach, but without an actual social marketing campaign implementation, this paper can only provide the basis for further exploration of this topic. Next, this proposal sets the stage for the following steps in the process, which include determining how to secure funding in the short term for
carrying out all of the goals included this paper. Ultimately with an increased 
uptake in these ideas, based on secured funding and successful social marketing 
development, the ultimate longer-term objectives would be to provide the basis 
for policy change at the state and national level. 

A starting point that may have broad appeal to policymakers and potential 
stakeholders centers on the need for increased telepsychiatry availability in the 
public school system. Because many children, primarily living in rural areas, have 
benefitted from telepsychiatry treatment, it is believed that increasing the 
placement of such services in schools would further address the need of 
 improved access, by bringing services directly to patients in a location they 
frequent on a daily basis. Of course, one of the most significant challenges to 
school implementation centers around the need for a licensed provider to sign off 
on patient prescriptions. This example demonstrates the need for policy changes 
needed in order for the idea of telepsychiatry in schools to become a reality. 

Indeed, new policy development and change is an important aspect of 
public health, because in many instances, it is what puts ideas into motion. In the 
 case of telepsychiatry expansion, this proposal could be helpful in that it presents 
much of the background data, along with an idea of how to increase uptake 
among a population where there are little or no alternatives. As stated earlier, 
while cost savings should be the least emphasized priority to the individual 
patient compared to improvements in access to quality care, in terms of a public 
health and policy making mindset, such savings are critical to record and present 
when proposing policy changes. The savings telepsychiatry has generated,
which are documented in the literature, present a major opportunity for convincing lawmakers to pass policies that would expedite telepsychiatry expansion throughout the state.

**Conclusion**

The central theme of this paper includes a proposal, which is centered on the concept of utilizing the social marketing approach for increasing knowledge and uptake of telepsychiatry in North Carolina, particularly among the Medicaid population. This proposal relies on the belief that the primary reason for low utilization of telepsychiatry relates to poor communication, or a general lack of awareness about the value to the patient and cost effectiveness of this form of treatment. Fortunately, there is strong evidence that points to telepsychiatry’s success, and is therefore why this paper seeks to expand knowledge among two of the area’s most pivotal players — patients and providers. Like most social marketing campaigns, this proposal seeks to provide a roadmap to the increased delivery of telepsychiatry services, beginning with an introduction of the problems surrounding expansion, and offering a creative solution to addressing such challenges in a public health context.

As reports project physician shortages in the years to come, this proposal may also have the benefit of addressing that shortage for one segment of the population — those in need of mental health services where access to such care is difficult. Once implemented successfully in North Carolina, developers in other locations can then take a closer look at how to carry out similar campaigns
among populations in different regions, particularly those with large rural populations, with the goal of addressing access barriers to ultimately improve patient mental health outcomes.
References


