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RESEARCH ARTICLE

Perceptions of How Integrated Care Impacts Treatment in Rural Settings

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ABSTRACT

Background: In light of the changing face of health care, it is important that practitioners and researchers begin to think strategically regarding comprehensive and accessible care. The purpose of this research study is to provide a deeper understanding of change among health care providers who work on multidisciplinary teams and the impact on patient outcomes.

Methods: This research was designed as an exploratory phenomenological research study. The experience of interest was how providers described changes in care when working in an integrated care context. Eight semistructured in-depth interviews were conducted with physicians, nurse practitioners, social workers, and psychologists from locations in Southern Ohio, Central Maine, and Eastern Tennessee. Data were analyzed using qualitative coding to find patterns with and across participants associated with their perceptions of health integration.

Results: Final developed themes described provider perceptions of working in an integrated care environment, and included access to care, interprofessional education, communication between providers.

Conclusion: Through interviews and a review of the literature, we have found that as integrated care is employed throughout the country, patients have better health outcomes and providers experience efficient and effective work environments. Providers have adapted to the changing environment of integrative medicine; through this study we see that these changes have been for the benefit of the patients. Patients who disproportionately suffer from a lack of health care resources, such as those in rural areas, may benefit greatly from an integrated care model.

Keywords: Integrated health care; Qualitative methods; Interview research; Behavioral health

INTRODUCTION

National health care initiatives have continued to focus on increasing efficiency of health care outcomes. Both the Substance Abuse Mental Health Services Association (SAMHSA) and Health Resources and Services Administration (HRSA) emphasize the importance of preventive care in contributing to optimal health for the public.[1] These agencies and the US Department of Health and Human Services (HHS) share the common goal of improving public health in order to increase efficiency and quality health outcomes.[2]

The World Health Organization (WHO) provides a succinct justification regarding the importance of integrated health care to improve quality of care:

1. The burden of patients who have mental disorders is heavy.
2. Difficulties between mental and physical health problems are intertwined.
3. There is a large treatment gap for mental health disorders.
4. Access to care is increased by having mental health services in primary care.
5. Patient stigma and discrimination is decreased by offering mental health programming into primary care settings.
6. Treatment of behavioral health illness in primary care practice is cost-effective.
7. There is evidence of positive outcomes for patients who have been diagnosed with mental health difficulties who are treated in primary care sites.[3]

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As health care continues to evolve, there are growing concerns about quality and efficiency. Integrated health care potentially adds a further dimension to quality assessment. Therefore, it is advantageous for the researchers and practitioners to gain knowledge regarding the benefits and challenges in integrated care, in order to facilitate optimal planning.

Preventive medicine includes wellness checkups and patient-centered health homes. As medicine continues to move toward integrated care, preventive medicine will become normal practice, ultimately increasing coordination of care and reducing overall health care costs.[4] The new medical models attempt to decrease the high costs of emergency department utilization and chronic conditions that oftentimes end up in costly, long-term treatments (ie, untreated type 2 diabetes). Further, integrated health care improves quality of patient outcomes by providing a place for shared information and a means to treat complex issues that face health care practitioners, particularly mental health care.[5] Having a 'warm hand-off' allows the patient to have specialty care incorporated into maintenance and preventive medical practice.[6] As health care continues to advance to this approach, it is imperative that research presents a collective understanding of what improves quality care.

The Agency for Healthcare Research and Quality (AHRQ) conducted a robust meta-analysis in 2008 of over 942 abstracts and citations of integrated health. As a result of this systematic review of findings, limitations, and recommendations, the team found 13 priority areas for future research. The importance of both rural integrated practices and qualitative analyses was cited in the study. In order to create sustainability and long-term systems of care, the AHRQ recommends conducting further research into what works.[7] Current research suggests that providers enjoy the benefits of integrated care because it decreases physicians' tendency to "live in silos," allows collaboration to help with complex patient needs, increases provider retention, and increases job satisfaction.[8]

Most previously published research on integrated care focuses on patient outcomes, or chronic care conditions and how they are treated in teams.[9,10] There is a scarcity of research that focuses on change within the health care practitioner (either as a primary care practitioner (PCP) or as a behavioral health professional) and, in particular, how practitioners perceive integrated care and how it may influence practice. As focus on integrated care continues, study of practitioner perceptions and practices will provide beneficial insights to continue to improve efficient use of time, coordination, patient satisfaction, and financial outcomes.

This study explores qualities that change a health care provider's practice as a result of working in multidisciplinary teams. We explored how the implementation of integrated care changes the quality of services delivered to the patient from the practitioner perspective. The basis of an exploratory study is to capture common themes among interviewees rather than having a set number of hypotheses as often used in more traditional scientific research. Therefore, the main objective for exploration in this study was to uncover patterns of experience when comparing interviews among rural practitioners in multidisciplinary teams.

METHODS

The questions for this phenomenological, qualitative research focused on the nature of change of practice as a result of the practitioner's participation on a multidisciplinary team. The primary question of interest was: "What about working on a multidisciplinary team changes the way you treat patients?" This question was formulated to fit the population of interest, as recommended in prior research.[11]

Phenomenology is the process of seeking to uncover the essence and structure of a particular thing of interest, the phenomenon. Often participants are similar in terms of the experience and other attributes.[12,13] The researcher seeks to describe the essence of the experience, make sense of it, and record the data retrospectively through in-depth interviews.[12] According to phenomenological methods, the interviewer, in this instance the first author, is the primary instrument of research. The primary author has previous experience working on multidisciplinary teams and has extensive experience working with rural patients. Additionally, all 3 authors are experienced in either behavioral health or primary care.

The desired participants for this study consisted of both primary care practitioners (PCPs; medical doctors, doctors of osteopathic medicine, family nurse practitioners) and behavioral health clinicians (BHCs; clinical psychologists, counseling psychologists, licensed social workers, independently licensed counselors) working in designated HRSA underserved areas. Participants were identified in advance of interviews via referral or snowball sampling with key contacts at each research site and were directly recruited through phone and email requests. The interviews consisted of 12 semistructured questions exploring the nuances that result in a change in the practice of care. The interview questions were tailored to address practitioners that work with both medical and mental health patients. As part of the process of conducting interviews, the author developed rapport with participants through use of a respectful, empathetic, and culturally appropriate approach.[14] Prior to data collection, a submission of research exemption request was requested and granted from the Ohio University institutional review board (IRB).

Data Collection

Each interviewee received the list of questions prior to the interview for preparation (see Appendix). Data collection consisted of a series of semistructured interviews lasting between 60 and 90 minutes. The interviewer also documented field notes within 48 hours of contact with the interviewee. The interview component of this research was concluded when the authors determined, based on preliminary data analysis, that the standard of data saturation was met. This occurred after interviews with 8 participants. For

this research, the authors followed guidance which specifies that data saturation is achieved when there is enough interview data to propose adequate inferences about the phenomenon of interest.[15]

Data Analysis

All interviews were recorded using a digital recording handheld device. A typed transcript was created from each audio recording. Field notes were collated. Data were deidentified and stored in a secure location locked files with deidentified names. The authors followed these steps for data analysis. Transcripts were read and reread by the authors along with the primary interviewer's scripted field notes regarding the observation of details not captured in the digital recording.

Next, a process of axial coding was conducted. This process included the following steps: 1) reduction of data 2) coding of data 3) creation of categories, and 4) analysis of themes. Reduction of data refers to identification of excerpts of interest. Coding refers to associating excerpts with a summarizing word or phrase. Categories are comprised of multiple similar codes. These are further abstracted into higher order themes that run through the data and address the question of interest. Two additional coders were recruited from Ohio University Heritage College of Osteopathic Medicine to provide an additional source of validity beyond the authors. All data were coded by 3 analysts. Codes were assessed for reliability by measuring consistent application of each code. The criteria used for reliability was agreement by 2 of 3 coders.

RESULTS

The final developed themes included access to care, interprofessional education, and communication between providers.

Access to Care

Access to care is an issue that the medical profession continues to deal with, particularly in rural areas. Integrating psychiatry, even telepsychiatry in rural communities, has helped bridge this gap.[7] Many patients are unable to make their appointments due to finances, lack of transportation, or even proximity of health care providers. This was supported by a statement made by a provider interviewee who said, "Transportation is sometimes difficult, and money, and things like that, so being able to, at the same time, capture all of their needs, all of their family's needs…that definitely can make a big difference."

One interviewee described: "In a rural setting, you may never get them back! Get them when you can and do as much as you can at one time." Another stated: "So much in the rural community is so isolated and fragmented that integrated care makes it unified for the patient."

Providers consistently reported that patients are often reluctant to follow up to receive psychiatric care; however, when they are already in the clinic, they are more willing to receive that care. Receiving psychiatric care in a place that is familiar and comfortable to patients helps reduce the stigma surrounding mental health.[6] An interviewee stated, "The patients were very pleased to attend counseling sessions at the primary care site as opposed to the stigmata they had attached to the other institution."

Interprofessional Education

Through integration, PCPs have realized that their treatment and diagnosis of mental health issues weren't as thorough or accurate as they had initially believed. The interaction between providers associated with integration has given them the tools they need to treat their patients efficiently and confidently.[5] One PCP illustrated this, stating, "You did the best you could, but I see in retrospect that I probably wasn't doing as much good as I thought I was because I wasn't really able to accurately diagnose." Another participant observed: "I think it has made a great deal of difference both in terms of our ability to educate, residents and medical students, and our ability to better take care of patients, and I think that we are more successful at engaging patients in behavioral health treatment."

Behavioral health clinicians have also benefited from their interactions with PCPs. A BHC discussed how this integration has allowed them to link information from a mental health perspective as well as a physical health perspective. A participant described how integration has been "really educational for me, because I hadn't worked in a primary care setting before, so, a lot of that medical information I didn't have before, I have now, and can better link the information I have about mental health/behavioral health."

The combination of shared physical space and combined electronic health records provides an ongoing educational framework that blends the disciplines of medicine and behavioral health. The ability to understand and share health care language contributes to a more seamless coordination of care for each patient, enhancing positive, quality outcomes. According to one behavioral health provider: "I think I'm definitely even more holistic than I was before, because I have more of that medical understanding now."

Communication Between Providers

When the doctor is down the hall from the psychologist who is just down the hall from the social worker, the influences related to social determinants of health (SDOH), associated with the environments where patients engage in everyday activities, are more readily and efficiently addressed by the care team. Communication between each provider is timely and not bogged down with complicated referral systems and unanswered phone calls. One medical provider described: "Say they are seeing us the same day, I can identify immediately the issues, I can task the behavioral health provider—this is going on, I'd like to do this medicine, will it conflict?"

If patients disclose important information about unaddressed SDOHs to a provider, this gap can be communicated to a different provider who may not have been aware and can provide that patient with resources. Patients can be discussed in a holistic man-

ner putting into consideration multiple health factors, rather than in separate pieces. This was described by one participant: "I'll interview a patient; the behaviorist will interview and get other information. Together we can get a better picture of the patient together." One PCP expressed, "It's been very helpful having the psychologists and psychiatry in the same building to be able to shoot questions or consult with...I've always got somebody there trained in psychiatric behavioral services to back me up." Another noted: "It's very easy to communicate—there's no barriers to communication, you know, we have access to—primary care has access to behavioral health, and vice versa."

DISCUSSION

To address the purpose of this research, it was necessary to explore the perceptions of providers working in integrated care settings. To gain a deeper understanding of the benefits, challenges, and future steps surrounding the multidisciplinary care team model, interviews with providers who work on such teams were conducted and analyzed. Throughout these interviews, several themes arose that supported the idea that an integrated health care model is beneficial to all involved entities of the health care system. These themes included access to care, interprofessional education, and communication between providers. Access to care was important among multiple dimensions including mental health concerns. Patients experienced increased access and decreased stigma in the integrated care environment which led to patients receiving treatment before their psychiatric symptoms were exacerbated. Regarding interprofessional education, interviewees described benefits with providers reporting they felt more well-rounded and better equipped to resolve issues that were not covered within their training programs. This is consistent with prior research; previous researchers concluded nearly all psychiatrists working in integrated environments stated that they provided educational support for PCPs and BHCs.[16] Communication among providers is enhanced, and this is beneficial for patients as well as the providers, and facilitates more comprehensive, timely care.

Integrated care facilities have become more numerous over the past several years, but they are not yet the standard. Through interviews and a review of the literature, we have found that as this model is employed throughout the country, patients have better health outcomes and providers experience efficient and effective work environments. Providers have adapted to the changing environment of integrative medicine; through this study we see that these changes have been for the benefit of the patients. Based on the results of our research, we suggest that this model should be the standard. Our findings show that integrated care facilities are an invaluable method to improving patient outcomes, especially in communities and areas that are underserved.

PUBLIC HEALTH IMPLICATIONS

Through discussions of individuals working in integrated care models, we found that patient access to care, provider comfort, and positive outcomes increased and were supported by the model. One PCP described the explicit advantages of integrated care: "We have such problems with patients with very limited transportation, so that, to have as many services in one place as you can...makes it so much better for the patient. Because if they can get that one van ride, or one tank of gas they can buy to come...we can get their behavioral health appointment, their general medical care, and their OB/GYN appointment care all on one day!"

Patients who disproportionately suffer from a lack of health care resources may benefit greatly from an integrated care model. For facilities that are in urban or rural underserved areas, we recommend that steps be taken toward development of medical homes that reflect an integrated primary and behavioral health model. Although the medical home can be beneficial to patients of all economic backgrounds, it is even more beneficial to the socioeconomically disadvantaged; socioeconomically advantaged patients have an increased ability to pay for services, travel to distant specialists, pursue private psychological services, and support healthy and safe lifestyle measures. In our view, this is an issue of justice and the equitable allocation of resources.

More recently, the emergence of COVID-19 has highlighted the importance of integrative care, particularly in rural communities. COVID-19 mortality rates have been considerably higher in rural counties, meanwhile testing has been shown to be lower when compared to urban communities.[17] The higher death rate is also in part due to the increased frequency of comorbidities in rural communities. With increased anxiety surrounding visits to clinics and hospitals, decreasing the number of times a patient must risk exposure is helpful. Additionally, the health care infrastructure in these areas may be unable to handle the volume of care that is required during these times.

We intend this research to add to the body of literature backing the support and funding of health care initiatives that holistically and efficiently care for all patients, especially those who are most burdened by a lack of resources and socioeconomic privilege. Incorporation of integrative health care would reduce the number of doctors' visits and allow for more of their health care needs to be met, providing patients with the opportunity to most effectively manage their health and reduce future issues.

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APPENDIX. Interview Guide

1. What has been your experience working on integrated teams?
2. What positive changes have you seen among your patients as a result of a multidisciplinary approach to treatment?
3. What challenges, if any, have arisen for your patients as a result of a multidisciplinary approach to treatment?
4. How has your practice changed as a result of working among other health care professionals?
5. In your (Medical/Psychology) training, were you exposed to experiences working with integrated health? If so, what were they?
6. What do you think are the advantages of multidisciplinary care in a rural setting?
7. Is there anything you would like to add in regard to your current rural practice as a result of integrated care?
8. How has communication of patient treatment changed as a result of working on a multidisciplinary team?
9. Do you think health care integration is critical in rural settings? If so, why?
10. Is there anything else I forgot to ask, or anything you'd like to share with rural integration practitioners and researchers?