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EDITION 26

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message from Your PRESIDENT

I don't mean to make patients cry, but I go through a lot of tissues in my office. The patients are usually surprised and apologetic, sighing, "I didn't mean to cry today." These patients share common traits, they are often middle aged and coping with aging parents, an empty nest, menopause, job pressures and often, raising grandchildren. They are exhausted, depressed, overweight and neglectful of their own emotional and physical health, pleading 'no time' because of the demands of their life. After three or four soggy tissues, I reflect back to them what they said, and help them look at their life with a critical eye. I work with them to recognize that their health is important too, and we identify their needs, talk about ways to set boundaries and do self-care. I emphasize to patients that they can't be caregivers to their family, if they aren't taking care of themselves. I repeat this advice to patients over and over again. Patients leave feeling unburdened because they have a new perspective on an old situation. So why don't I follow my own advice?

I EMPHASIZE TO PATIENTS THAT THEY CAN'T BE CAREGIVERS TO THEIR FAMILY, IF THEY AREN'T TAKING CARE OF THEMSELVES.

I'm a slow learner. I have always done everything the hardest way possible. Not because I prefer to, but because it doesn't occur to me that an easier way exists. So, I struggle. In February, I stepped over a small snow pile, caught the toe of my boot, fell, and broke my left leg. The experience forced me to do something I loathed: ask for help. The stubborn perfectionist in me hates to admit that I can't do something and I tell myself that asking for help is a burden to others. But as I've learned, my patients, my staff, my family and my friends are happy to help and want to make this recovery as easy for me as possible. I am grateful for their support and care.

I am trying to do more self-care, recognizing patterns that signal that I'm approaching caregiver fatigue and need a break. Caregiver fatigue is a state of mental, physical, and emotional tiredness, associated with behavior changes that come from the prolonged responsibility of caring for others. I can now recognize the signs of caregiver fatigue in myself and try to make changes in my professional and personal life to prevent full burnout. I practice saying, "No." I work on boundary setting in both my personal and professional life. I developed daily mindfulness practices. I now understand that self-care is critical to patient care, if there's nothing in my emotional tank, I have nothing to give others. Self-care doesn't make the insanity of a physician's life go away. Self-care won't improve the EMR, or improve payments or stop the peer-to-peer madness, or reduce the paperwork burden, but it will clear your mind to get perspective and prioritize.

One of my mindfulness practices is a boundary ritual when I leave the office. A boundary ritual is a specific set of practices I do each night when I leave my office to transition my mind from Dr. Zook back to Sam's mom, Susan's wife and Melissa, the writer and knitter. Every night when my hand hits the office door and the evening air hits my face, I close my eyes and breathe deeply. I stride across the parking lot and feel the air on my skin and the pavement beneath my feet. I call Susan for a quick check, then spend the rest of the forty minute commute in silence. That time is sacred to me. By the time I walk through the back door of the house, I am transformed from doc to mom and ready for the next chaotic wave.

In the mornings, when I pull into my office, I park in the back of the lot, set the timer on my phone for ten minutes, close my eyes, focus on my breathing and on what I'm experiencing through my senses AT THIS MOMENT. In other words, I practice mindfulness. I can't change my situation if I am not even aware of my surroundings. Mindfulness, being in the present, brings an immediate awareness of sensation, of the pleasant and unpleasant, of empty and full, of fatigue and pain. Practicing mindfulness heightens my body awareness throughout the day. That body awareness translates into action, a snack, a drink, a stretch, a bathroom break, a rest from several hours at the computer.

There is a growing concern and body of literature regarding physician burnout, the extent (about a third of physicians at any given time), the causes, both personal and professional, and both prevention and treatment (personal and systemic).

Burnout is characterized by losing enthusiasm for work (emotional exhaustion), treating people as if they were objects (depersonalization), and having a sense that work is no longer meaningful (low personal accomplishment). As a result of burnout, we make errors, have decreased patient satisfaction, decreased quality of our care, and higher levels of staff conflict and turnover. We get cynical, sarcastic, and we are more likely to make disparaging remarks about our patients and violate HIPAA in the hallways.

The causes of burnout are varied and are both within and beyond our control. The same characteristics that enabled us to endure our years of education can be dysfunctional for us in practice. We are perfectionists so we don't delegate or ask for help. We are fixers and worriers so we hate turning patients away. We are fearful of vulnerability so we don't ask for help and we avoid risk. We are terrible at self-care and taking our own advice so we ignore our body signals and push beyond our limits.

Disillusionment with the ideals of medicine also contributes to burnout. EMRs have turned us into data entry clerks and our work day is dependent on technology's fickleness. Payors are always demanding more accountability with peer review for approvals prior to procedures, prior authorizations for medications with justification, and chart audits with chronic disease quality indicators. All of which eat away at our days. Payors cut, delay, withhold and audit payments. We don't get paid fairly for our intellectual work product and chronic care. There is the stress of practice management, employees, and continuous improvement of flow through the office. Keeping up with the deadlines and requirements for the KBML, ABFM, NRCME, DEA and AAFP CME requirements requires its own guidebook. Many of us also precept students, a job we feel called to do, although it comes with no extra financial benefits.

The best way to prevent burnout is to acknowledge that the work is stressful and accept that your emotional and physical health is important to you, to your family, your staff and your patients. Then, identify your physical and emotional needs and what you need to do to take care of yourself. What can you get off your plate? What can someone else do for you? What keeps you from getting finished in a timely manner? What can wait? When is the last time you took a vacation and didn't take any work along with you? When is the last time you enjoyed your favorite hobby or got a good night's sleep? When is the last time you saw your own family physician? Do you even have your own family physician?

Consider adding a boundary ritual or a daily mindfulness practice. A mindfulness practice can be as simple as a deep, cleansing breath before entering each exam room. Mindfulness has been associated with a number of physical and mental health benefits, including lower stress levels, improved cognitive function, and a decreased risk of developing chronic illnesses. Mindfulness meditation has even been shown to boost our creativity and empathy, both of which benefit our patients. Dr. John Patterson reviewed a number of simple mindfulness practices that can be done in the office every day during the KAFP annual meeting in November 2014. Another simple mindfulness practice is to write down three positive experiences from each day in a special notebook. The paper itself isn't important, it can be a dedicated legal pad, it is the practice of reflection, gratitude and positivity that is cultivated from the commitment that matters.

As a member of the KAFP you can help to prevent physician burnout from the systemic factors that contribute. You can respond to calls to action from the advocacy committee and contact your legislators when bills regarding payment reform and other critical issues come across your email and fax. You can join us on KAFP advocacy day at the Capitol. You can tell us at the KAFP your stories of burnout, the act of telling our stories is healing itself.

The resources at the end of this article are just a sampling of the rich body of literature of mindfulness and physician self-care. As your president, as a family physician and as a mom, I worry a little about each and every one of us out there. The Academy is here to connect you to resources and I am to encourage you to take care of yourself, so you can take care of others.

RESOURCES

Websites :
Mindfulness.org
HappyMD.org
Mindbodystudio.org - John Patterson, MD

Smartphone Apps:
Headspace
The Mindfulness App
Mindfulness Meditation
Stop, Breathe and Think

Books:
Where Ever You Go, There You Are by Jon Kabat-Zinn, PhD
The Mindful Brain by Daniel Siegel, MD
Buddha's Brain, the Practical Neuroscience of Happiness, Love and Wisdom by Rick Hanson, PhD

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MARK YOUR CALENDAR FOR UPCOMING MEETINGS!

2015 KAFP CALENDAR

KAFP KY HOUSE BILL 1 & REMS CME SESSIONS
Free to KAFP Members
Saturday, March 28, 2015 - 8am-12:30pm EST
The Campbell House
Lexington, KY

KAFP BOD & COMMITTEE LUNCHEON MEETING
Saturday, March 28, 2015 – 1:00pm EST
The Campbell House
Lexington, KY

2015 ANNUAL LEADERSHIP FORUM & NCSC
April 30-May 2, 2015
Sheraton Kansas City
Kansas City, MO

2015 KAFP & FOUNDATION MEETING
Nov. 12-14, 2015
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A Global Perspective on Medical Education

Over the past 20 years, student interest in global health has grown tremendously.[1] The Internet, easy travel and globalized economies have brought us face to face with communities we once considered distant. The impact of these developments on health is that we can no longer view ourselves as separate from the world. We must view our health as interdependent with the health of others. Our students understand and are preparing for this future in which they will practice.

What is global health? Koplan and colleagues define it as "an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide."[2] Global health recognizes that geography no longer isolates us from disease, that socioeconomic and political conditions can promote or destroy health and that health disparities negatively affect our domestic social and financial stability. It acknowledges that public and population health approaches – with prevention as a key factor – will be necessary in the future. The recent spread of Ebola, the impact of immigration policies on labor and food production, and the relationships we must maintain with oil producing economies, all highlight threats to this stability.

How can we teach these approaches when our current training environment is largely focused on individual, high cost, invasive mechanisms of care? One method is by providing students with international health experiences (IHEs) in which they gain experiential learning via cultural immersion and work in low-resource environments. Several studies show that IHE participants are more likely to work in primary care, work with underserved populations and have greater cross-cultural awareness.[3,4,5] Integrating IHEs into the medical curriculum prepares students to work with increasingly diverse populations at home, improves their understanding of health determinants, addresses our need to develop the domestic primary care workforce and just might sustain and develop the idealism that brought many students to medicine in the first place.[6,7]

Victoria's experience at the Centro Medico demonstrates the relevant medical learning that happens on the ground outside our healthcare system. The elective entails a one-month observership at the Centro Medico Hombro A Hombro, a clinic developed through partnership with the University of Kentucky and Shoulder to Shoulder Global. Students shadow Dr. Cristian Carrion and his team to observe care of patients from three impoverished communities. These invaluable experiences have shaped many students' future practice plans to work with underserved communities. We hope to bring this experience to the heart of medical education through development of our Global Health Initiatives.

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BY VICTORIA DE LEON

REFLECTIONS THROUGH THE LOOKING GLASS:
My Five Week Stay in Santo Domingo, Ecuador

WEEK 1 AND 2: APPEARANCES ARE DECEIVING

I am not as fortunate as Alice that I can step through a mirror to access a new world. However, hopping on a plane and flying to the other half of this world is a close second. My first view of Ecuador upon landing was the new airport in the outskirts of Quito. This being my first time in South America, my only frame of reference was its distant Central American neighbor, Costa Rica. Thus, it's not surprising that I was shocked when I arrived in the city of Santo Domingo where the Centro Medico Hombro a Hombro (CMHH) clinic is located. Santo Domingo is radically different from the capital Quito. While Quito is Ecuador's luxurious trophy wife, Santo Domingo is the scruffy younger brother that spends his days playing outside. Hopefully, its residents will excuse me when I say that this city is ugly. There's a lot of concrete grayness and little to no green. Lots of exhaust and dust from traffic seems to coat every surface. Many of the buildings have unfinished top floors with large supporting I-beams holding up the metal sheets of the roof covering. It's as if at the last minute the builder had an important meeting to attend and decided a whole floor balcony would do the trick.

So with that kind of review, it almost seems like there is no point to staying or even coming to Santo Domingo, but appearances are deceiving. The city is, in fact, ugly, but there is more to it than just the scenery or lack thereof. While lackluster concrete buildings make up most of the neighborhoods, I quickly discovered that the outside state of the house does not reflect at all the inside. All the houses appear with chipped paint, fenced in and hidden away between other buildings. It is not until you step inside that you know whether a family has rough concrete flooring or smooth tile, whether the living room is complete with sofa, table and TV, or whether there is barely any furniture at all. The range of socioeconomic levels is mind blowing. For example, in the morning I can easily head down to the street market and buy enough fruit and vegetables for a meal or two for only two dollars. Yet, if I go farther down the street to the supermarket, I'll see prices and items very similar to those in the U.S. I find that this large discrepancy also mirrors the way healthcare runs in Ecuador. A public cost free system exists, however, waiting times can be long and quality medical attention can be sparse. I've been told that if want your medical needs addressed in a timely manner, you can pay out of pocket to go into the private system. Of course, these private visits can cost anywhere from ten to twenty dollars with some specialists charging upwards of forty. The question comes down to do you go for the street market medical experience or do you pay to make it into the medical supermarket?

WEEK 3: A FOREIGN PLACE JUST LIKE HOME

My initial expectation when considering diet and health problems here was that those problems found specifically in Santo Domingo would be dictated strongly by environmental components. By this I mean, the diet would be dictated by what was grown in the community and in the fields surrounding the town. I expected there to be a strong focus on fruits and vegetables grown locally in the cuisine. My expectation of healthcare problems ran along similar lines. I knew the water in Ecuador was unsafe to consume, so I assumed many of the illnesses found in areas without potable water, such as gastritis, high levels of parasitic and bacterial infections, diarrhea and other GI disturbances would also be found within Santo Domingo.

It feels strange to see that in this case, the looking glass isn't so much observational, as it is, in fact, a mirror. By this I mean that the two diseases that I typically associated with overweight American culture are, in fact, the two main diseases that are seen in the CMHH: hypertension and diabetes. Ok, so on a health problem scale, we are similar. Then what about the diet? Nutrition and food choices are definitely different. Rice is a huge staple here and it is eaten everyday (I've been told lunch without rice is a sin). Second to rice are bananas. There are banana types fondly referred to as 'verde' meaning green in Spanish. These greens are prepared and cooked in every way imaginable. They even come in chip form. Proteins from milk, lentils, fish and meats are common too. Carbohydrates, protein and fruit sugars provide the daily major input… with a clear lack of vegetables. It seems like it's not only Timmy not eating his vegetables, but Carlitos also is joining him in the broccoli strike.

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PHYSICIAN ASSISTANT

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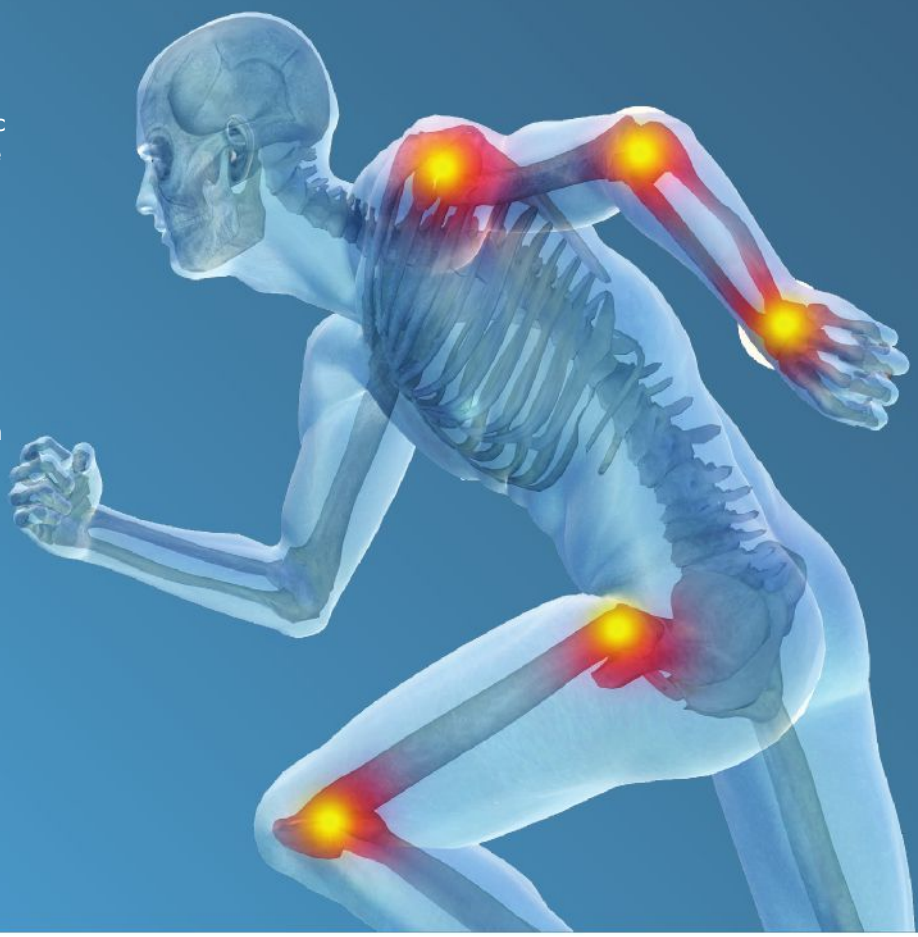

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WEEK 4: DUST AND COMMUNITY LIVING

Life through the looking glass continues and it has gotten quite cloudy from all the activity. I spend Thursday mornings with Mercedes, the community outreach worker. She spends much of her day doing house visits to community members with chronic illnesses who are unable to go to the clinic (hint: many of her patients are elderly). One Thursday we piled into the Centro's truck and took to the streets with Mercedes. Now, taking to the streets in the Burneo neighborhood involves a lot of dust. The roads in this area of Santo Domingo are unpaved and composed of packed dirt sprinkled with rocks that easily becomes a dust bath during hot sunny days. Most poor walking bystanders hold their hands over their noses and mouths as cars and buses pass by intermittently. Every couple of minutes as we drove through the neighborhood, Mercedes honks the horn lightly to greet people walking on the side of the road.

Our visit that day was uneventful - a standard day of visiting patients. Funny enough, a brief encounter with an old man sticks out to me. He waved us down as we were walking by because we stood out dressed in scrubs. He proceeded to explain to me that he wants paved roads. He's tired of 10 years of dust blowing everywhere and getting into his house. He is particularly upset at one specific bus company that always flies down the road lifting up the most dust. Mercedes calmly explains that we're from the Centro Medico and I am a medical student rotating in the clinic. This doesn't deter him. He asks me if I can't somehow get the roads paved. I want to laugh (a little in desperation) because I know nothing about paving roads. After voicing a couple more pointed remarks about bus drivers, the old man waves us off. This is of course not the first time I've heard individuals frustrated with the dust. It is a little bit humbling that so many different organizations come to this neighborhood to provide so many services, but all this man wants is someone to pave the road in front of his house. Looks like community outreach is always a work in process and a struggle between what we as providers think the community needs and what the community wants.

WEEK 5: STARING IN THE MIRROR

For my final reflection I decided to focus on how social determinants shape the health of this community. To finish my time at the CMHH, I felt the best way to address and gather more information on this topic was to ask the CMHH staff: As the health providers of the community, what limits the community's ability to achieve better health as a whole?

During my questioning, an interesting point was brought up by the staff: some problems don't necessarily lie within the community itself, but among the healthcare providers. The public healthcare system in Ecuador is very complicated and poorly managed. Many times the care given is not effective. So even though an Ecuadorian can receive free healthcare, the doctor is uninterested in providing optimal

care since it is not their private practice. Or, a common occurrence, many doctors are young and inexperienced because the Ecuadorian government requires all recent medical graduates to serve a year as primary care practitioners in rural areas. Or the waiting time for the specialists is too long or there are no specialists. The list is a long one, however, I found that while you can usually access primary care, the quality of that care is severely lacking in consistency. Generally, to receive good care, the staff explained to me, you have to go to a private practice or clinic; however, that involves paying completely out of pocket - an option that is not viable for all.

One of the final questions I asked was: If there was one aspect of healthcare here that you could change, what would it be? Not surprisingly, many of the answers to this question reflect the problems the clinic staff felt existed in the community. First, there was the wish that individuals in the community would be more self-motivated in improving their health and well-being i.e. wishing that people would come to the clinic for preventative care. Second, they wished for more providers because the staff felt there was a lack of support from the public system in the local community. A strong regret was that the CMHH's staff is too limited for greater community health outreach programs. There was hope that with more manpower, more could be accomplished. A particular emphasis was placed on women's health and mental health, two issues that are very prevalent in Santo Domingo but for which there is little to no support. And lastly, Dr. Carrion made the very interesting point of saying that he wished for the promotion of the concept of health. The public system in Ecuador tends to be inpatient orientated, especially in Santo Domingo with the building of a new hospital with up-to-date facilities. This coupled with the waiting periods at primary care clinics, encourages the public to go to the hospital ER if they are sick, where they will be seen and treated sooner. This completely undermines the idea of preventative care and going to the doctor when you are not sick. And more importantly this gives the idea that health exists when you are not physically sick. Understanding the Alma Ata concept of health, that is, encompassing not just physical but mental and social well-being, is an important aspect of creating a healthier community. That healthier community not only uses its resources wisely but works together for an overall better lifestyle and better health for all in the long run.

Victoria de Leon is a second year medical student at the University of Kentucky College of Medicine. Like many global health students, she finds global health helps fuse the joys of traveling and patient care all in one neatly packaged gift. She hopes to become a psychiatrist in the near future and maybe one day help bring mental health care to global prominence.

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BY: D.ANTIMISIARIS, G. MCCOY AND J. MILLER.



EHR Medication List Accuracy: A Review and Discussion

BACKGROUND

The accuracy of medication records is of great importance in making decisions regarding the clinical care of patients. Accurate documentation of medication use can help health care providers avoid drug interactions, assess side effects and manage medications for successful outcomes. At a time of crisis, sometimes the medication record is the only medication information a provider has to work with. These considerations are increasingly important in the current setting of multi-morbidity, multiple physicians, and polypharmacy.

Drug related morbidity and mortality costs exceed $200 billion annually in the U.S., and for every dollar spent on medications in the nursing home setting, $1.33 is spent addressing the problems created by the use of the medications.[1] Budnitz et al. reviewed 99,628 adverse drug events (ADEs) resulting in hospitalization in persons over 65, and it found that half occurred in persons over 80 years old while 67% were caused by 4 medication classes (warfarin, insulins, oral antiplatelets, and oral hypoglycemics). The Budnitz study implies that we need to pay special attention to patients over 80 and to drugs we understand fairly well because they are common but may be a problematic due to factors such as monitoring and prescribing which are commonly cited in medication misadventure reports and linked to medication reconciliation.[2] Another study looking at ADEs in persons over 65, found three major contributors to ADEs (some can count twice for same ADE); adherence related problems 21%, prescribing 58% and monitoring 60%.[3] Surprisingly, even dose changes and drug discontinuations can increase the risk of ADEs. One study found that the overall risk of ADE per drug alteration is 4.4% and there is an increased risk of ADE after patient discharge from hospital where medication changes occur at a high rate.[4] This emphasizes the need for special attention to care transitions with regard to EHR medication use documentation and reconciliation.

DATA REGARDING EHR MEDICATION RECONCILIATION

A study published in 2012, based on data collected in 2009-2010, looked at patient interviews and chart documentation for 219 subjects affiliated with a primary care clinic in Pittsburg, PA. 74% had at least one discrepancy, with the most common discrepancy being an incorrect medication documented on the chart. The majority of discrepancies resulted from the use of over the counter medications and failure to report medications to all healthcare providers. Patients able to recall the strength for more than 75% of their medications had fewer discrepancies. This study emphasizes that a lack of communication and knowledge of patient related variables are key barriers to accurate medication use documentation.[5]

A Harvard Medical School study published in 2007 evaluated the effect of a web-based patient portal in producing accurate medication lists in an EHR. Eighty four patients using a patient portal were compared to 79 patients not using a patient portal to determine whether sending Primary Care Physicians (PCPs) clinical information provided by patients would result in improved EHR medication list accuracy. A lower percentage of portal users' drug regimens were reported to be correct than those who were non-users (54% vs 61%), although portal users took more medications than non-portal users. So it appears patient notifications via email had no demonstrated improved effect on accuracy of patient medication lists.[6]

In the Journal of Managed Care Pharmacy a 2008 study conducted at the Palo Alto Medical Foundation for Health Care, Research and Education, reported overall medication discrepancies found in the EHR records of 85 patients compared to telephonic medication reconciliation interviews. They reported categorization of medication discrepancies as well as causal factors. The major category of discrepancy was the medication listed in the chart while the patient was not taking the medication. (Figure 1) This study also reported the top 10 discrepancies by therapeutic class with anti-infective, anti-inflammatories, analgesics and vitamins leading the list.[7]

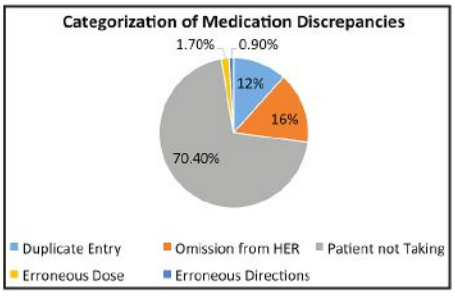

Figure 1
Figure 1 adapted from Orrico KB. J Manag Care Pharm. 2008

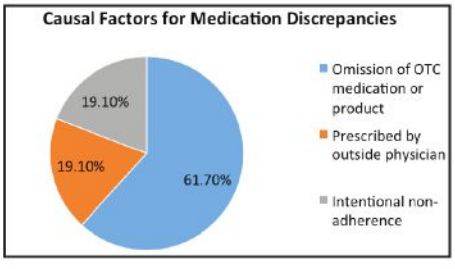

Figure 2
Figure 2 adapted from Orrico KB. J Manag Care Pharm. 2008

In Figure 3, authors wanted to explore the less data driven and more humanistic perspectives by presenting the results of informal discussions with a group of physicians regarding barriers to accurate medication documentation and assessment.

FIGURE 3:
DISCUSSION REGARDING MEDICATION DOCUMENTATION [8]

"Sometimes drugs are listed with absolutely no directions, and it may be because medical assistants try to help update the med list, they are in a rush or unable to do so completely."

"Some of our patients in our EHR are seen on home call, and their charts are updated there (in the assisted living facility and are paper) and not updated here for when the patient comes to clinic."

"Many patients have difficulty understanding how to take medications or describing how to use them, and there are several English as a Second Language patients, with no one to translate."

"is there an option for free text directions?"

"It's difficult to find items in the drop down choices and sometimes you have to go with the closest item."

"Refill a medication and the duplicate remains on the chart, and its extra work to remove the old one."

"Antibiotics should say for how many days, otherwise they look like an active order."

"Patients should be encouraged to have an updated med list with them and participate in med reconciliation."

"There's not enough time to update the lists and document accurately."

IMPLICATIONS AND CONCLUSIONS

The challenge of accurate charting of medication use at any given time is significant, given the multiple factors and systemic barriers. The percentage of patients whose records are likely to have hidden medication documentation discrepancies is very high as noted in the literature. The increasing pressure on physicians to maintain high volume work output, obligates him/her to focus on the most urgent problems limiting time for medication review. The patient encounter is further compromised by intrusion of the EHR. It has been estimated that the average primary care physician focuses on the computer screen 30.7% with only 46.5% time devoted to the patient.[9] An opportunity lost in picking up subtle signs of unmentioned problems and perhaps more harmful indicating a lack of interest in the patient. The EHR medication reconciliation process is tedious and time consuming and often lacking options to efficiently record the products patients actually use such as various OTC products, herbs and supplements. Additionally, patients and families need to be encouraged to take an active role in ensuring that their providers are aware of their accurate use of medications by keeping an updated list and advocating to providers that records be updated.

It would be beneficial to develop a standardized method for conducting medication reconciliation in every practice setting. One common theme in the existing literature appears to be that designation of a point person for medication reconciliation and dedicated time allotted for achieving accurate medication reconciliation is difficult to achieve. On the surface, it appears this is likely driven by the lack of reimbursement to do so. There is some truth to the lack of reimbursement, however going forth after the Affordable Care Act was implemented, "hidden" reimbursements do exist.

How to pay for comprehensive medication use assessment and documentation? In this new era of quality indicator driven reimbursement structures, the opportunity exists to justify designation of persons whose responsibility it is to achieve comprehensive medication use assessment and documentation. The PCMH model requires increased non-reimbursed fee for service activity (*i.e. care team meetings*, *non-face to face encounters*, *care coordination*, *self-management education for patients*, *data analysis*, *and increased communication with other clinicians*) which is reimbursed by other means through enhanced PCMH payments.

For example, PMPM payments often referred to "monthly care coordination payments" can cover care management, care coordination and/or Rx consultations paid to PCPs or PCP networks, plus or minus pay for performance where predetermined outcome of process measures are rewarded for desired outcomes. There's shared savings payments,

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and codes for PCMH services such as T-codes (for traditionally non reimbursed services), or transition of care codes for patients recently hospitalized (99495, 99496). Using these or similar codes to designate a dedicated team member for medication reconciliation can for example take the form of training a care coordinator typically midlevel provider such as PharmDs, and RNs with special training on medication assessment, and under their charge, training easy access health coaches.

Another option: a practice could contract out the medication reconciliation and health coach work to affiliated groups. A community pharmacy –PCMH collaboration in Washington state offers a wide range of services ranging from prescription fills/refills, medical equipment provision, refill authorization programs (to take that duty off of the medical assistants in the physician office), vaccine protocols, to medication reconciliation, and disease specific collaborative practice agreements (many pharmacies have point of care testing capability to monitor chronic disease management).[10]

Using these hidden reimbursements to

create a charge person or team for efficient medication reconciliation and medication monitoring, can be an opportunity for practices to achieve better outcomes, save physician time, capture higher reimbursements, free physicians to see more patients efficiently, and improve PQRS reimbursements.

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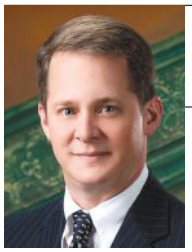
Grace McCoy and Janna Miller are 4th year PharmD candidates 2015 on rotation with U of L Geriatrics: University of Kentucky School of Pharmacy, conducted a quality assurance project which was presented to the Geriatrics faculty at their weekly educational session.




BY R BRENT WRIGHT, MD, MMM;
MALLIKARJUN SAMALA, MD, MPH, PHD

TXT 4 BTR HLTH

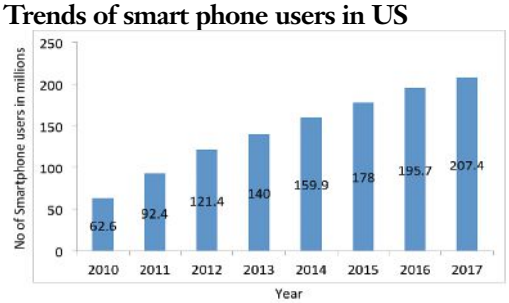
INTRODUCTION

Communication is the hallmark of the Doctor-Patient relationship, a relationship that is at the center of the healthcare system. With the advent of modern technology, communication has grown through mechanisms that did not commonly exist years earlier. It is important for the healthcare system of today to examine how communication can be enhanced between physician offices and the patients they serve. This improvement will assist in fostering better compliance, increased access, and greater efficiency. Text messaging has changed the way we communicate as it is a different pathway for conveying information. Texting lives alongside multiple platforms for information exchange, but consistently demonstrates its value when compared to phone and e-mail communication. Text messaging has demonstrated success in several healthcare settings which will be highlighted within the article. Healthcare has unique issues to address regarding communication as it relates to privacy, confidentiality, and personal health information, but these challenges should not be obstacles when fluidly answering the questions and concerns of our patients. This article will look at some of the opportunities, challenges, evidence, and possibilities regarding texting within healthcare.

BACKGROUND

The use of smart phone and mobile technology is growing at an astounding pace. In the United States, currently, 85% of adults are using a mobile phone and 17% of them are accessing their health information by using mobile phones.[1] Text messaging is prevalent among teenagers, with 90% usage.[2] One of the fastest growing areas of medicine, mHealth, exists because of the large growth of mobile devices. When evaluating how we connect with our patients, we cannot ignore the evidence that exists regarding individual access to smart phone technology.

Graph 1: Trends of smart phone users in US



Source: http://www.statista.com/statistics/201182/forecast-of-smartphone-users-in-the-us/

Even though the texting in healthcare is emerging, the application of this technology has been limited to very few areas and is not common place in the routine office environment. The Department of Health and Human Services (HHS) has been actively supporting the exploration of innovative projects such as the text4baby program[3], Centers for Disease Control and Prevention's H1N1 Flu Text Messaging Pilot,[4] and mDiet research Pilot Program supported by NIH.[5] These projects provide an outstanding level of access to resources using mobile technology.

TEXTING IN MEDICINE

Areas where texting has or can be used include but are not limited to the following:

1) Physician to Physician: Several companies have developed encrypted applications for communicating with physician colleagues. These platforms allow for the exchange of information that is compliant with rules governing personal health information exchange.
2) Physician to Patient: Patient information regarding lab results, appointment reminders, changes in medication, and health maintenance reminders can be messaged to the patient through texting.
3) Facility to Patient: Public health has great promise within this space as well as hospitals in developing plans for patient care upon discharge.
4) Facility to Physician: Healthcare facilities can exchange information with physicians regarding items from patient care to hospital policy.

TEXT MESSAGING EXAMPLES IN HEALTHCARE

Medicine has always been a discipline that has utilized technology and scientific discovery. Health information technology has been focused primarily upon Electronic Medical Records (EMR) for the past decade, which has left little room exploring simpler methods of communication. International studies have shown that texting can be successfully used to improve the knowledge of individuals on preventive care, and enhance the adherence to treatment in HIV/AIDS and Tuberculosis.[6-8] In developed countries, use of texting in communicating patients' laboratory results, chronic illness management, behavior modification, and in saving clinical time is more often the focus of texting as a communication platform.[9-12]

1) Public Health: Most of the risk factors of disabling conditions such as diabetes, cardiovascular diseases, and cancer can be prevented. Instead of a direct interaction, sending text messages about preventive care can be a convenient and affordable way to deliver information.[3,13-14] Behavior modification in pediatric and adolescent population can be achieved through text messaging.[15] By using existing technology to address chronic disease and healthy behaviors, we work to be better stewards of our healthcare resources.
2) Chronic Disease/Self-Management: Self management is an important aspect of the chronic disease model. Texting can be

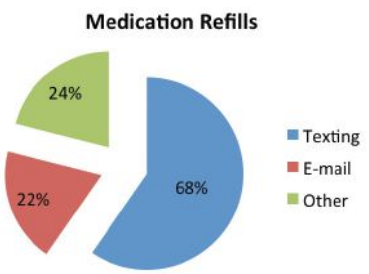
a useful tool for self management of chronic disease.[9] Health education for the management of chronic disease can be delivered through text messages without the transportation and overhead needed for face to face encounters.[13]

3) Adherence to Treatment: Studies have demonstrated that texting improves the adherence to treatment in HIV and Tuberculosis patients by sending the reminders about medications.[7,8,17,18] Studies have shown that non-compliance, which is a major issue in healthcare, can improve through text reminders to the patients regarding their appointment scheduling and treatment.[19]
4) Health Education: Thousands of surgeries and procedures will occur each day in US. Instead of giving the information through paper print outs, pamphlets and other materials, texting the patients about the education and preparation for procedures will save time, and reduce healthcare costs.
5) Behavior Modification: Smoking, alcohol abuse, and physical activity are the significant behaviors which are important for disease prevention and wellness promotion. Studies have shown that these life style modifications can be achieved through texting the patients about the adverse effects of behavior.[11,20,21]
6) Psychiatric Disorder Treatment: Use in this area is broad and success has been demonstrated in dealing with populations involving the aftercare intervention of bulimia and schizophrenia.[22-24]
7) Maternal & Pediatric Care: Text messaging has shown promise in prenatal care, vaccination information, and health eating education.[25-28]
8) Rural Healthcare Delivery: Studies have demonstrated that the acceptance of healthcare through texting is very high even in rural areas.[29]
9) Integration with EMR/EHR: Studies involved in sending text messages integrated with electronic medical records shown that there is positive effect on reducing the non-attendance of appointments and also in weight control.[30,31]

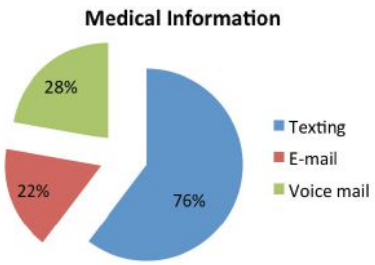
Electronic Messaging Interest Survey at Glasgow Family Medicine Residency Clinic:

Secure messaging offers a convenient way of communication between patients and their physicians. Surveys have demonstrated that texting or e-mailing is the best way to communicate with the patients.[32] To be responsive to the needs of our patients within an ever changing technological world, we conducted a survey on the interest of patients in electronic messaging for enhancing communication concerning common messages within Family Medicine clinic. Our responses showed there was a strong interest in utilizing texting for medication refills and to receive information from their physician. 68% of patients showed interest in requesting medication refills via texting, and 76% showed interest in receiving information from their physician through texting. Even though this survey was a small sampling from our clinic population, the responses indicate concordance to initial findings from the medical literature and an alignment with the work of Health and Human Resources in evaluating the further benefit of texting in healthcare. What is needed for implementation of this work is to have a texting platform within the EMR system so that our work is documented directly and not through an additional software application that requires installation and maintenance.

Graph 2: Communication preferred for medication refills



Graph 3: Communication preferred for medical information



CHALLENGES: SECURITY/ENCRYPTION/ CONFIDENTIALITY

Health information lives at a different level than routine person to person communication regarding security. Health information must be protected, secured, and monitored. Security is a challenge, but should not be an excuse for failing to use a communication method that is personal and immediate.

ADOPTION & ELECTRONIC MEDICAL RECORD (EMR) ALIGNMENT

Those within healthcare are challenged by change and regulation "fatigue." Gone are the days of the paper record where notes could be written outside of a computerized algorithm. As we continue to learn healthcare delivery while utilizing the EMR, we need the EMR to align more with commonly adopted platforms such as text messaging. We should not have to leave the electronic record, open a texting application and communicate. We should have our communication embedded within the record. This would help with adoption, documentation, and efficiency.

COST

There will be costs associated with software, IT support, and governance surrounding the use of texting within healthcare. This cost should not be a deterrent in utilizing a highly efficient and promising communication tool for patient care. Cost should be minimized if this functionality is updated into new upgrades for EMR systems.

CONCLUSION:

Texting within healthcare is neither a new nor novel idea, but the full utilization of text messaging within healthcare has not been fully developed. Promising results exist regarding the benefit of texting, but more research has to be conducted to receive the full benefit of this medium. Text messaging has to be used within the current workflows that exist within healthcare facilities to achieve the dual benefit of patient care and efficiency.

Texting has shown promise within special

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populations related to disease and geography. Local examination of our patient expectations has identified the acceptance in receiving information through text messaging. Plans for our facility include incorporating texting capabilities within our EMR and we have had meetings with software companies to design a delivery method that is respectful of our clinic's workflow, as well as efficient and fluid in its communication to patients & providers. Texting will be an important communication tool for years to come as evidenced by the growth of mobile platforms and software applications which are text based.

With the growth of mobile technology, healthcare will have to adopt texting as a way of meeting patient expectations, but also in providing cost-efficient care rather than utilizing more expensive delivery options. The use of texting within healthcare is not technology supplanting the human aspect of care. Quite the opposite is true; texting allows for an information delivery platform that frees up office staff from the more mundane work so that the needs of patients can be more fully addressed.

Questions or comments regarding this article can be texted to R. Brent Wright, MD, MMM 270-670-9319 or @bwrightmd on Twitter.

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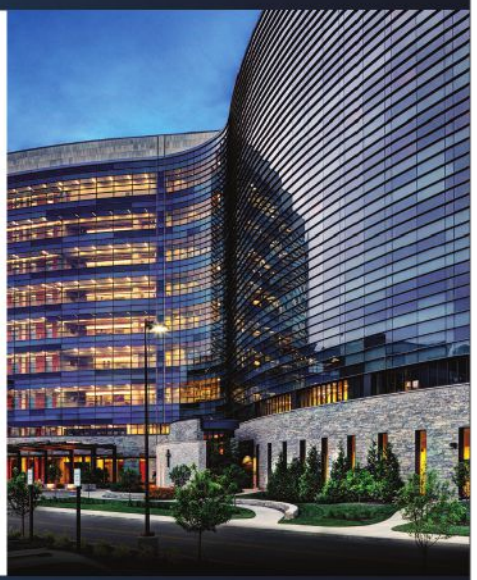

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