

Stop the Silence about the Scourge of Stress: A communications strategy for primary care

INTRODUCTION TO THE PROBLEM

Some of the most intractable chronic conditions the US Healthcare system must face (including heart disease, diabetes, and obesity) have a known, significant stress-based component (Pearson, 2015). In fact, up to 80 percent of the reasons why patients visit their primary care provider (PCP) are related to stress in some fashion (Avery, Matheny, Robins & Jacobson, 2003). Though most physicians agree that stress reduction would benefit their patients (Avery, et al., 2003), a thorough study by Nerukar et al. (2013) found that only 3 percent of visits to the PCP include stress-reduction suggestions. Further vexing is the fact that cheap, simple, thoroughly studied mindfulness practices exist to lower stress (Pearson, 2015). Ultimately, Fricchione (2014) notes that not properly addressing stress-related conditions creates a tremendous amount of suffering for the patients and taxes the healthcare system as a whole. There is a clear communications gap between the resources and the clinical application of stress-management counseling.

So why don't physicians counsel on stress? Using the framework articulated by Erving Goffman and expounded on by Dr. Bruce Lambert in class this quarter, I will argue that flaws in the interaction design in the areas of *participation, articulation, navigation, and propagation* encourage silence around this important topic. Ultimately, stigma, lack of education, and lack of well-designed communications resources prevent this crucial topic from being discussed.

In this paper I will describe a communications system that addresses the flaws in the interaction design that perpetuate the silence around the scourge of stress in primary care settings.

ELABORATION ON THE PROBLEM

In 2013, a short and unassuming paper by Nerurkar et al. in *JAMA* described a large national study on stress counseling in primary care. The study team found Avery et al.'s (2003) determination that up to 80 percent of visits to primary care offices have a stressed-based component alarming. So, between the years of 2006 and 2009, 34,065 visits to 1,263 PCPs were analyzed to determine if stress management was mentioned. The mention did not need to be specific, in fact it was defined as “information intended to help patients reduce stress through exercise, biofeedback, yoga, etc.” (p. 76) or “referrals to other health professionals for the purposes of coping with stress” (p. 76). Even with these broad guidelines, physicians only counseled on stress in 3 percent of visits (Nerurkar et al., 2013). Why? Is stress counseling not a medically sound area for doctors to tread? My research proved otherwise.

Why bother? The scope and severity of the problem

Looking at the medical foundations of stress, Pearson (2015) provides a comprehensive overview of the ways in which emotional stress can cause an increase of inflammation in the body. This field is known as *psychoneuroimmunology*, and it has a plethora of well-studied conclusions about how stress affects the body. The main mechanism of harm seems to be reactive proteins in the body that increase inflammation and create dysfunction in the endocrine and immune systems. The imbalance in stress hormones together with the compromised immune responses have been implicated in creating and exacerbating a wide range of illnesses. Further, inflammatory markers influence gene expression, which (as articulated through the field of epigenetics) activates certain genes in favor of illness. Known chronic conditions such as heart disease, diabetes (type 2), allergies, gastrointestinal conditions, infection susceptibility, and (perhaps the ultimate scourge of the US healthcare system)

obesity, have all been linked to this psychoneuroimmunologic process exacerbated by stress (Pearson, 2015).

However, hope is not lost. As Pearson (2015) describes thoroughly, there are many mind/body or mindfulness-based interventions that are simple, free, and produce impressive results in lowering inflammatory markers in the body. Taking the example of yoga as an intervention, Pearson (2015) describes that in a randomized, controlled study, patients with type 2 diabetes who participated in three months of yoga practice had lower perceived stress, as well as physical markers such as, “lower plasma cortisol, beta-endorphins, interleukin-6, and tumor necrosis factor” (Pearson, 2015, p. 6). Furthermore, more common measures such as weight, waist circumference, blood pressure, and glucose levels all improved after only 10 days of the program (Pearson, 2015). This example is not singular.

What does this tell us? We have a significant problem in chronic illness that causes suffering and harm to a patient’s identity, bank account, and quality of life. We also have effective, cheap interventions that have medical research behind them. Therefore, this is a clear health communications problem: How do we translate the research and techniques into easily implementable communications delivery system focused on the primary care office? And what gets in the way?

Current interaction and participatory framework

Before we work toward an answer to that question, we must discuss the current state of affairs. Due to the stigma of mental health and lack of education, doctors and patients face communications challenges in the areas of *participation, articulation, navigation, and propagation*. Currently, the patient waits in the waiting room, is called and talks briefly to a member of the nursing staff, and then waits again in the exam room. The key interaction then occurs when the the PCP comes to

consult on the health complaint of the patient. Typically the interaction lasts 8 minutes, with behavioral health intervention adding a lot of time to the meeting, at 20 minutes (Meadows et al, 2011).

Using Goffman's participation framework defined by Dr. Lambert (2018), the dyad of the doctor-patient relationship is a focused interaction with the dominant state of talk typically revolving around the patient's physical health. Depending on how the framework is set up, stress and mental health could be regarded as subordinate states of talk, or off-topic and unwelcome in a focused interaction such as this. The power dynamics in this framework strongly favor the physician as the most powerful person in the room. In fact, many patients might not even know that they do have a right to the floor or which subjects are in the dominant state, or related to the main purpose of the interaction. Thus, making participation roles more understandable to the patient is a designable communications problem. Two main participatory issues arise: First, patients might view stress or other mental health concerns as a subordinate state of discussion, or off-topic. Second, the doctor might not be able or willing to make it clear that the patient can take the floor to discuss other measures of health not seemingly directly related to physical structures or bloodwork, including stress management.

Contributing articulation problems

Further, the strong need of the actors in this interaction to practice politeness or face-saving creates articulation problems as well. First, doctors don't get all the information they might need to understand the patient's condition when stress is not discussed. Patients often do not disclose their mental health concerns in an effort to save face, or create positive face for themselves. This might mean that patients does not want to appear "crazy" or weak by stating that they need help managing their mental health. Seeman (2015) reports that the National Institute of Mental Health still finds a

great deal of negative stigma associated with being perceived as mentally ill. A patient's potential "emotional leakage" (Lambert, 2018), further jeopardizes a patient's positive face.

Considering the same framework from the physician's perspective, patients unnecessarily suffer because doctors don't feel equipped to educate about stress-management and thus avoid discussing it. Doctors face a lot of pressure to be viewed as experts, and saving positive face often means knowing all the answers. Still, Avey et al. (2003) found that while 90 percent of doctors thought stress was an important factor in illness, only 42 percent received instruction on how to provide stress-management counseling. Thus, opening up a conversation and learning about the stress of a client is hugely problematic for face-saving if the doctor does not have answers or expertise to offer. To save face, doctors often do not mention stress at all, and patients do not get needed counseling.

Further, Fricchione (2014) notes that often the most toxic and pervasive stress relates to entrenched attachment relationships or childhood experiences. Socially, this feels like a very tricky arena for a doctor to enter, as their training is not in the depths of human psychology. Talking about strictly physical information saves the patient's negative face, but perpetuates the patient's potential view that their mental health troubles should be kept silent due to stigma.

Propagation problems

As noted before, though 90 percent of doctors believe stress reduction is effective in treatment, less than half had education on how to provide it. Further, more than half of doctors do not practice stress reduction techniques themselves (Avey et al., 2003). Educating doctors in stress management counseling and resources seems critical to the mission. However, who has the authority to do so effectively? In analyzing this propagation problem through a social network lens, knowledge of who has this influence over the doctors professionally could lead to better outcomes.

To address this, we must consider the social needs of doctors within the professional setting. Doctors are expected to be experts, and so their conception of authority is likely crucial to what information they are willing to take in. Therefore, in the social network of the office, doctors would probably be reluctant to take in education from those they deem inferior. Thus, bringing in health educators or social workers to lecture doctors on best practices would likely not have much social influence. The right influencer is likely hard to find, but if PCPs were able to get effective training on stress management counseling and best practices, the patient would be more likely to get this information in the end. Thus finding a proper influencer will be key to the communications design.

Navigation problems

Part of the problem related to navigation seems to be the lack of helpful materials that doctors can reasonably use in a clinical setting. Once stress is identified as an issue, only vague notions of how to remedy it appear in even scholarly studies (such as Nerukar et al.'s "biofeedback, yoga, etc" [2013, p. 76]). Thus a communications strategy needs to confidently navigate both patient and clinical staff through the waters of evidenced-based stress reduction, which will be addressed later in this paper.

NORMATIVE MODEL

As discussed in Dr Lambert's (2018) class, a model is only "better" with relation to certain values. Based on the values of self-empowerment, resilience, and reduction of suffering, in an ideal world patients would be assessed for excessive stress when they present with a condition that is known to have a stress-based component. Physicians would be knowledgeable and feel confident about the evidenced-based science of the role of stress in these particular condition. If the patient would benefit from stress-reduction counseling, the physician would initiate the process, explaining the health benefits and directing patients to free or low-cost resources to foster the mind/body

connection. By fostering resilience and self-empowerment, this strategy would give the patient the best chance to have a reduction in symptoms that are based on emotional stress, ultimately reducing suffering.

CHANGE STRATEGY

General information

In order to implement a communications intervention, we first need to locate a PCP clinic with an interest in exploring this method. Perhaps the clinic recognizes that many clients come in stressed and vaguely knows that stress could be exacerbating their clients' symptoms. Once the clinic is onboard, a doctor will need to be identified as an influencer, which will be described in detail below.

We'll first identify the pool of high-risk patients that present with one of the aforementioned conditions with a stress component (diabetes, obesity, heart disease, recurrent infection, allergies, and GI disorders). From there, the group will be divided in two, with half receiving the communications intervention (hereafter referred to as the Study Group).

Before we begin, we'll want to know the current levels of stress-management counseling at the practice. What are provider opinions on the role of stress in exacerbating their patients' conditions? What problems do they foresee in trying to implement a stress-education program? Do they anticipate any negative effects on the patients or the clinic staff? What measures would be most compelling in determining if the intervention is successful or not?

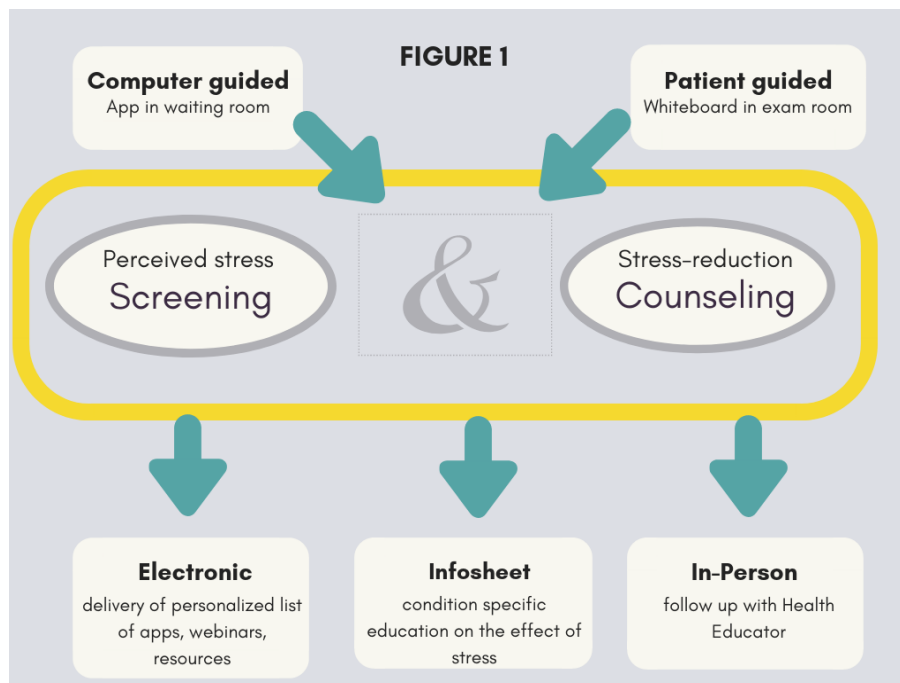
IHI aim statement

Using the IHI (Crowl et al., 2015) framework, the aim is: **Within 6 months, all of the patients in the Study Group will be exposed to stress-reduction counseling and education in some way**

and half of the Study Group will engage in one stress-reduction technique offered by the PCP's office.

INTERVENTION DESIGN

My communications solution has three main phases: input, key interaction, and follow-up, which address the participation, articulation, and navigation aspects of my problem. The propagation problem of finding an influencer will be addressed prior to beginning the intervention (pre-input). All stages of the intervention itself are intended to make use of under-utilized time at the doctor's office so that the burden to PCPs and nurses in the busy office is minimal. The input phase is when the patient is able to use communications design to initiate the conversation with the doctor (participation). The key interaction is when the doctor refers the patient to resources (articulation). And the subsequent communications resources--either electronic, written, or in-person---comprise the follow-up (navigation). The flow of the intervention is visualized in Figure 1.



Participation framework design to get patient input

The power dynamics illustrated current participation framework strongly favor the physician as the most powerful person in the room. Encompassed in the main problem is a participation problem, whereby the patient feels that they don't have the right to bring up stress. Thus, communications design needs to make it clear that this is a priority in the office. When the patient arrives at the office and checks in, they often face unused time in busy clinics. I'd like to focus this time on educating patients on their stress levels and providing them with resources immediately upon entering the office, engaging their participation in the process.

Within the waiting room, I'd create an iPad stand that would run the BodyMind app that our communications team has created for this purpose. Using a series of questions from the Perceived Stress Questionnaire (Cohen et al., 1994), the patient could determine their personal stress level. In this part of the interface, the BodyMind app would have features to explore how current stress might relate to common reasons people visit their doctors. The focus would be on researched conditions, such as those that Pearson (2015) mentions: heart disease, diabetes, allergies, gastrointestinal disorders, infection and obesity. Based on another few questions on patient preference, the app would generate a list of free or low-cost resources, including relaxation apps, community or online yoga classes, and instructions for simple techniques like journaling. This list could then be printed on the adjacent printer or the client could download the app and reference it there. Finally and crucially there will be a button to send a brief summary of the results to the PCP. The doctor will then have the stress rating in the patient's medical records for follow-up.

Once the patient is brought to the examination room, there is often still a lot of unused time before the doctor arrives to consult the patient. Following the nurse's examination of the patient's vital signs and so forth, the patient would be directed to a whiteboard that reads something like, "It's not just in your head. Stress can make you sicker." The patient could then write down any questions

for the doctor, and there would be a standard question, based off of the research of Houlden et al. (2017): “In the past month, how often have you felt your stress level was not manageable?” (p. 3). If the patient reported a high number of times, the doctor would then be prompted to do more counseling on stress-management. Participation in this way would be optional, but would utilize otherwise unutilized time in the exam room. Furthermore, including a perceived stress test as a regular part of the visit will alert the patient that stress-management is a perfectly legitimate (dominant) topic of conversation with the PCP.

Articulation + propagation framework design for the key interaction

Earlier in this paper, I identified that when a doctor is not willing or able to counsel on stress, there is often an underlying articulation problem. Either the doctor herself wants to save face because she has not been trained to counsel on stress (Avery et al., 2003) or the doctor is trying to help the patient save face by keeping quiet regarding a stigmatized subject. Therefore, my task is to provide resources that increase the physician’s ability to articulate the role that stress may play in the symptoms the patient is experiencing.

But first, propagation. The question of who has the social influence to educate the doctors or validate resources is crucial---and this is a propagation problem in Goffman’s framework. In order to determine this important piece, drawing on the work of Contractor & DeChurch (2014), I would examine and map the doctors’ social networks. Here, I’d look for influencers who could assist in using evidenced-based research and practical training to create “scripts” or articulation suggestions for a dialog about stress. To measure the network, I would ask each provider in the clinic the following questions to determine who has social influence over their education: *Who would you turn to in the practice if you wanted to learn a new professional skill? Which doctor in this practice*

do you respect the most? Who is the most holistic doctor in this practice? What publications are most influential to your way of practicing medicine?

I would then map the network, looking for doctors who came up frequently in the first three questions. Ideally, I'd look for crossovers—those who came up in more than one category. After identifying the influencers, I would use the preferred publications from question 4 to do research on the evidence supporting the importance of stress reduction counseling. Ultimately, I would build a communications packet that outlined the importance of the discussion as well as suggested scripts endorsed by the influential doctor. This would remove some of the barriers of articulation in the key discussion.

Now, back to articulation. Based on my research, the scripts would likely include the Perceived Stress Questionnaire (Cohen et al., 1994), to concretize the level of stress. As there is a stigma around mental health conditions, the doctor could use the work of Pearson (2015) to discuss how stress manifests physically in the body and can worsen symptoms the patient is experiencing. Communication would normalize the stress conundrum, hopefully allowing the patient to save face and hear the recommendations more fully. An example script might be, “It’s very normal to experience mental stress, many of my patients do at various points in their lives—do you think stress might play a role in your condition? Are you concerned about your level of stress?” Or, “Many of my patients experience very difficult situations that cause their physical health to worsen. Part of our procedure here is to do some health education around stress.” This might allow a hesitant patient to disclose and/or be open to resources.

A vital part of this interaction is that the PCP has resources to offer the patient for next steps. This is an important communication function which I will address in the final component of my design.

Navigating the resources

In this final part of the communications program, I address the fact that good follow up materials on stress management are either underused at the doctor's office or don't exist in formats that are appropriate to the setting. The patient will receive follow-up in one to three ways: electronically via the BodyMind app, in written form via info-sheets, and orally via communication with a Health Educator. All three of these resources will be at the ready when the doctor decides that stress reduction would possibly help alleviate symptoms.

First, the BodyMind app will be downloadable to the patient's devices, whereby the app's resources previously described will be available for individual use. On the app, the patient can measure and track their stress level, locate tools for stress reduction, learn about how stress could exacerbate their symptoms, and contact the office to make an appointment with a Health Educator to review.

Second, symptom- or condition-specific info-sheets would answer the question: *how might stress play a role in my condition? And: what can I do about it?* The goal of the sheet would be to persuade the patient of their own resilience and ability to influence their nervous system's response to stress. Drawing on Dr. Lambert's (2018) lecture on persuasion, common barriers would be addressed logically and thoroughly.

Another key component of the infosheets is education around the field of *psychoneuroimmunology*, described well by Pearson (2015) as the confluence of physical, mind, and emotional factors that can create inflammatory responses in the human body. As discussed earlier, there is a bounty of evidence that supports not only fact that stress exacerbates many illnesses, but also that there are tangible, biological processes at work that can be improved using simple mind/body interventions (Pearson, 2015).

Finally, follow-up care would include integrated behavioral health services, which Miller-Maero et al.'s (2016) study found that physicians approved of and benefited from 97 percent of the time. The leader of the communications program, a Health Educator located at the office would coordinate the above services, answer patient questions, and help patients exhibiting signs of mental illness find appropriate care.

Intervention logistics

I suggest rolling out this communications strategy in one primary care office. The subpopulation will be those with the aforementioned conditions that have a stress-based component (heart disease, type 2 diabetes, GI issues, allergies, recurring infections, and obesity) (Pearson, 2015). In order to be able to measure the effect of the program, the clinic will administer the program to half of the patient subpopulation, the Study Group.

The team leader will be the Health Educator, a health communications specialist. Other members of the team will be the influential doctor and nurse from the clinic, and an IT app developer. The team will build the program over the course of 6 months.

The first outcome measure will be patient engagement, measured by usage of the app and completed appointments with the Health Educator. The second outcome measure will be health of the patient, as measured by a review of the patient's chart. Depending on the condition, health might be measured by self-report, blood tests, or number of visits to the office. This rating scale will be determined and coded by the nurse practitioner, in conjunction with the team's doctor. The rating scale will be on a scale of -5 to 5, with 5 being the healthiest. This scale will allow us to visualize changes in the patient's health in a general way. The third outcome measure will be perceived care, rated on a scale of 1-10 by both the clinical staff and the patient population.

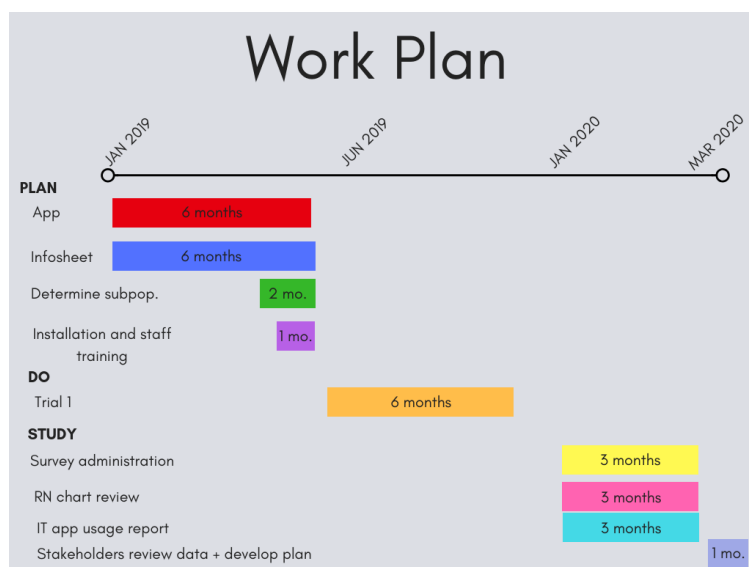
Plan, Do, Study, Act (PDSA) cycle described

The *planning* portion of this intervention will take place over the course of 6 months, during which time the BodyMind app will be built and installed, whiteboards will be installed in exam rooms, and condition-specific info-sheets will be generated. Next, for the *do* portion, the plan will be rolled out in a single clinic to the Study Group. The intervention will then run for 6 months.

For the *study* portion, feedback will be gathered in several ways. First, the clinic staff will fill out a questionnaire about difficulties, efficacy, needs, and so forth for the program. The patients in the study group will be tracked based on their usage of the BodyMind app and their follow-up with the Health Educator. They will also be given a survey that measures their perception of the quality of their care as well as their perceived stress levels and symptom relief. The participating nurse will review the study group's charts to look for how symptoms have changed within the last six months.

Three run charts will visualize the changes, comparing symptom change, number of visits, and perceived care with engagement in the stress-reduction protocol. The control group will be compared to the Study Group to assess change as well.

Based on the results, the plan will be refined to eliminate ineffective aspects and amplify effective measures. If the intervention proves mostly effective, the program will be rolled out at another PCP clinic for further action.



IMPLEMENTATION PLAN + TIMELINE

The implementation plan over the course of a year and a quarter is visualized above. Each color

corresponds to a different tasks, which

will be elaborated on in the next section. The implementation plan is heavily front-ended in order to make sure that the materials are fully developed. The Health Educator, a communications specialist, is in charge of coordinating the schedule, tracking key milestones, and updating the team on progress. Several tasks run simultaneously when they are handled by different members of the team.

The task list elaborates on each task in more detail. The colors of the boxes correspond to the colors in the timeline above. At the end of the sequence, the team reviews the IHI goal and revises appropriately for the next iteration.



CONCLUSION

This problem is at once simple and complicated. It's simple because the resources to manage stress are simple and free. It's complicated because it asks doctors and patients to think of the health of the human system in a different way. Talking about "softer" topics like stress requires more time and better communication. Building helpful resources requires that communications are both scientific and emotionally appealing. I don't imagine this intervention will be initially appealing to every clinic. However, I do believe that this is a communications program worthy of trial and error in order to foster resilience, empower patients and doctors, and ultimately reduce suffering.

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