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Summary: “Slow Ideas” - Atul Gawande

- **Why do some innovations take off and others do not?**
  - **Gawande illustrated cases of anesthesia (William Morton 1846) and carbolic acid as antiseptic (Joseph Lister 1867), both groundbreaking surgical innovations**
  - **Operating theaters across America and Great Britain implemented anesthesia, while antiseptic practices much longer to become the norm**
    - **Why? Anesthesia produces immediate, tangible results, but antiseptic environment are noticeable long-term**
    - **Anesthesia made the surgeon's job easier (no thrashing patient), antiseptic practices were tedious**
  - **Aseptic operating theaters did not become standard protocol until decades after Lister's work; was not until surgeons transformed views of their profession that they began to regularly implement aseptic practices**
    - **Before donned "black frock coats stiffened with the blood and viscera of previous operations - the badge of a busy practice" and rushed through operations**
    - **After began to view themselves as scientists and wear clean, white coats; took pride in maintaining scrupulous aseptic procedures**
  - **Gawande’s conclusion: "This has been the pattern of many important but stalled ideas. They attack problems that are big but, to most people, invisible; and making them work can be tedious, if not outright painful"**
- **BetterBirth Project in Uttar Pradesh, one of the poorest states in India, aimed to make safe childbirth practices norm**
  - **Focus on unnamed clinic in Lucknow**
    - **For Lucknow population of 250,000 people, clinic only had two nurses and one obstetrician, two blood-pressure cuffs, no heating or air-conditioning, and no practice of skin-to-skin mother to infant contact to combat hypothermia**
      - **"Hypothermia, like the germs that Lister wanted surgeons to battle, is invisible to [the nurse].... If four percent of newborns later died at home, what did that possibly have to do with how she wrapped the mother and child? Or whether she washed her hands before putting on gloves? Or whether the blade with which she cut the umbilical cord was sterilized?"**
    - **High-tech solutions unrealistic to maintain in low-resource settings; not the biggest obstacle in public health, as simple measures usually serve as the best solutions [i.e. mother's skin vs. baby warmer]**
    - **In convincing people to "Please do X," a punishment/reward system does not suffice; we need to change people's behaviors to the extent that "X" is routine**

- **First, must understand people's current norms and identify barriers to change**
    - **BetterBirth Project enlisted childbirth-improvement workers to mentor childbirth staff across six regions of Uttar Pradesh in safe practices**
        - ➢ **Critics argue this approach is not "scalable," yet Gawande believes it is; out of this solution may arise new profession of childbirth-improvement mentors;Gawande points out how field of anesthesiology did not exist until after Morton's discovery**
    - **"'Diffusion is essentially a social process through which people talking to people spread an innovation'" (Everett Rogers)**
    - **Development and implementation of ORT as a relevant example:**
        - ➢ **1968 - Dhaka, Bangladesh; cholera outbreaks are frequent and devastating**
        - ➢ **American researchers David Nalin and Richard Cash develop ORT, which rehydrates cholera victims and reduces mortality dramatically**
        - ➢ **1980 - BRAC launched campaign to make ORT (water, salt, sugar) common knowledge;sent female workers into villages to teach mothers one-on-one how to make ORT solution using simple measurements (i.e. pinch of salt, scoop of sugar, etc.), as part of a seven-point information system**
        - ➢ **Campaign is successful over a period of time**
    - **BetterBirth Project implemented checklist system but recognized mentors were critical in local workers adhering to the checklist; however, it took time, patience, personal interactions and relationship-building for change to occur**

Summary: Robyn Churchill Class Discussion

- **People resist change because fear of what change will do**
    - ➢ **Not effective for just one person to change; everyone must change for it to count**
    - ➢ **Necessities of change:**
        - **Knowledge - understanding why a method is effective = more reason to use method**

        - **Supportive environment - if environment is war-stricken or in dire poverty, less likely to care about changes like healthcare and education when main concern is survival**
        - **Skills - cannot implement methods of change without proper training**
        - **Resources - change only possible if provided with tools**
        - **Motivation - people need to be inspired not to resist**
    - **Always barriers; must expect resistance and then outsmart it - Churchill created own framework for implementing change:**
        - **Engage stakeholders - everybody involved is stakeholder, not just politicians or wealthy**
        - **Make local modifications - have to account for local culture and environmental/ lifestyle differences, i.e. corrupt government, caste systems**
        - **Identify change team - train own cultural community over outsiders; identify early adopters and champions**
            - **Early adopter - willing to immediately jump on board, i.e. person who buys a new i-product the day it comes out**
            - **Champion - takes the reigns; will take over when implementers leave**
        - **Data to learn - what can we learn from community before changing it?**
        - **Data to use - how do we use what we learn to improve? Everyone needs to take responsibility for data**
        - **Look to future - think about governmental effects / how change will look long-term**
    - **One major medical change: Surgical checklists in hospitals**
        - **Simple checklist = overall 40 % decrease in patient death during and after surgery**
        - **Lesson = quality improvement in hospitals raises patient survival**
        - **Hard to adopt checklists in rural or under-developed places, even in developed, when results not immediately available**
- **Change in deliveries and infant mortality**
    - **Highest death risk for mothers and infants during 1) admission, 2) delivery, 3) post-delivery, 4) right before discharge**
        - **A few simple steps can save lives**
            - **Basic practice of respect leads to better birth outcome**
                - **Human right to be treated well in maternity care : Respectful Maternity Care**
                    - **If nurse does not respect patient, less likely to provide proper care**
                    - **If patient does not respect nurse, less likely to follow all instruction**
            - **Encourage birth companions - not a practice in the United States until 1970s**
            - **Allow mothers to be hands-on throughout pregnancy**
    - **Change story in Karnataka**

- **24/7 observation by birth improvement specialist using 29 item checklist (at first only 10 being used)**
- **Difficulties:**
  - **India hugely hierarchical (helpers and cleaners not seen as part of medical team)**
    - **Needed to teach team that even sweepers (untouchables) important in medical facilities**
      - ➢ **Specialists not allowed to teach lower employees training techniques - came up with idea to teach staff while lower employees in room so they could listen**
      - ➢ **Everyone is most important person!**
  - **Pharmacists in facilities afraid to give out inventory, like thermometers because do not want to get in trouble with inspectors**
    - **None of the equipment being used even though available**
    - **Inspectors more worried about inventory than how inventory is used**
  - **Instead of maternal improvement, maternal punishment**
    - **High infant death in a facility = threat of transfer to Nepal (worst place to work)**
      - ➢ **Workers refuse patients who are very sick instead of helping them so do not get transferred**
      - ➢ **In US, law in place about refusing emergency care but has not been adopted by other countries**
- **Lesson - Important to help improve in other countries to allow people to see their cultural blind spots; also to help our country see own cultural blind spots**

Thoughts:

In the beginning of the discussion Churchill asked the class to get up and move around the room, disrupting the usual seating arrangements. Once we found new seats she asked us to answer the following questions: "What were your initial thoughts when I asked you to move? What would you have thought if I asked only one person to move? Did you like the way I asked you to move or should it have been done differently? How would this have been different if I never introduced myself? Why did I ask everyone to move?". I noticed some of my classmates were excited to move, while others were a little more resistant, but nobody fought to stay in their original seat. Personally, I was a little annoyed at the switch, but after I found my new seat, I realized I could change my perspective of the room. It would have been easier for just one person to move, but then I asked myself, what would the rest of us be learning from the experience? The abruptness of the change allowed each student to look at his or her own resistance to change. If Churchill had not introduced herself, I would have wondered why I even needed to listen to her. After the discussion, this seat change became much more applicable. How we react to small changes, can show us how we react to big

changes. We may not understand our resistance until we actually analyze it. Churchill introduced herself and gave us a reason to listen. She had everyone move because change does not count unless everyone gets involved. We were all stakeholders in the classroom experiment. She made each of us ask ourselves what our own resistance to change is and how can we recognize and reduce resistance in ourselves and our society.

Churchill applied the theme of change to the medical field and more specifically to maternal health care. In the United States, we perform a number of simple, lifesaving steps in our hospitals that are normal to us. Some examples are hand-washing, cleaning bodily fluids, and taking vitals. However, in other countries, these practices might not seem as easy or worthwhile to adopt. Atul Gawande made an observation about delayed adoption of practices in his article, "Slow Ideas". He writes, "Maybe ideas that violate prior beliefs are harder to embrace". Imagine if a person told you that using toilet paper actually leads to germ spread. It might be hard to just stop using toilet paper without any data to back up the claim for why it is bad to use. Moreover, without trust and respect, who would listen to the implementor of the idea? Inspiring change is not a one step process, and usually is faced with a huge amount of opposition. Sometimes the change has to take over slowly through multiple adjustments. To illustrate resistance to change, Gawande compared the adoption of anesthesia to the adoption of sterilization in hospitals. Anesthesia caught on quickly but sterilization did not because 1) only anesthesia made doctors' lives easier, and 2) nobody could see the immediate effects of sterilization. Especially in the modern day, if people do not see fast results, they are less likely to adopt a new idea or technology. Perhaps because our society is on the move constantly, we are inhibiting ourselves from brilliant discoveries because they cost too much money and its not worth observing the discoveries for long periods of time. In the United States alone, society is almost at a point where maternal pre-screenings can be done at home. However, both Churchill and Gawande are pointing to a bigger question: is technology necessarily better than face-to-face human interaction, especially in the medical field?

To answer this question, I thought back to my own personal experiences. Whenever I trained for a job, no matter how many training videos I watched, I never truly learned anything until I was forced to do it myself. You cannot teach an employee each customer or client's individual personality. This was especially true when I worked as a counselor for at-risk youth. My boss would say, "Training does not really start until you are here every single day watching over your kids". The children would not listen unless they had a reason to respect me and I showed them respect as well. The problem with the internet is that it never fully establishes a human connection. When I am chatting with a friend on Facebook or emailing a teacher, I cannot see their facial expressions, hear the emotions in their voices, or even read their body language. Certainly, if customer service is highly reliant on face-to-face interaction, the medical field should be as well. Patients need someone they can trust when they are going through traumatic illnesses, and surgeries and medical professionals need to be able to rely on each other to be successful in treating patients. A hospital is not just one doctor, it is an entire team. Gawande mentioned how oral treatment for diarrheal illnesses only became effective in under-developed countries when people came in and taught individual households how to make the treatments themselves. Change needs to be hands-on, interactive, and interpersonal.

Churchill told us about her experiences training medical staff in Karnataka and some students brought up thought-provoking questions. Churchill said that the training showed

health improvements in the facilities but one student questioned if the nurses were only making the changes because they knew they were being observed. Perhaps after implementors left, the medical staff might fall back into their old routines. Moreover, the training only lasted for three months so how would we know if the training still works six months or years later.The class agreed that follow-ups would be one way to ensure changes were working. Churchill pointed out that funding is one of the biggest issues with follow-ups. It is so sad that programs that might have worked in improving health, education, and more sometimes fail because nobody is able to keep a connection due to funding. Countries should look into setting aside money to support health and education programs that have been established and are showing success.

I do not think medical issues are only a problem in under-developed countries though. We may have high survival rates and excellent hospital sterilization, but some aspects exist that should be looked at further. For example, due to the huge amount of schooling and the cost of college, there are not a large number of doctors, surgeons, and specialized medical professionals. Thus, medical staff usually have to work long hours without sleep. This can cause major stress and lead to problems such as alcoholism. Moreover, medical professionals have to distance themselves from their patients emotionally, but it does not seem humanly possible to not be affected by a patient's death. Counselors should be available for hospital staff if that is not a job that already exists. This is one issue that should be looked at more closely. Both the United States and other countries have made vast improvements in health and more but we cannot let ourselves believe that our practices today are the final solutions. We always have room to learn from ourselves and other cultures.