Disruptive Innovations in Nursing Education:
The Good, the Bad and the Ugly

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Change is All Around Us

- Change in health care
- Change in education
- Change in technology
- Change in thinking
- Change in consumers
- Change in how leaders lead or are expected to lead
- Change in communication
- Change in expectations

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Consider this…

- General hospitals overserve the needs of a relatively small population of very sick patients while underserving the needs of the larger patient population.

- NIH spends most of its funds learning to cure diseases that have historically been incurable while spending less on learning how to provide health care that is simpler, convenient and less costly.

And consider this…

- Rather than asking expensive health care institutions and high cost professionals to move down-market, we should focus on using less expensive professionals to do progressively more sophisticated care in less expensive settings.

- Is this rocket science?

- And if not, we are ripe for disruptive innovations.

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What is a Disruptive Innovation?

- Term was coined twenty years ago by Clayton Christensen
- Basically, it challenges the status quo
- It improves a product or service in ways that the market does not expect – making it less expensive and more accessible
- It is a process, and quality must catch up to what the market offers
- It often requires a different business model

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What does it Look Like?

- Technologically simple – may have worse functionality initially

- Fundamentally simpler and less costly

- Starts in markets with fewer regulations

- Customer friendly

- Eventually allows more accessible, appropriately skilled people do the work of expensive specialists

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Examples of Disruptive Innovations

- Personal computer
- Wireless telephone
- Southwest/Jet Blue airlines
- Netflix
- Lasik surgery
- Hip replacement surgery
- Angioplasty vs. open heart surgery
- Electronic health record

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Types of Medical Problems Ripe for Disruptive Innovations

- **Acute** problems amenable to precise diagnosis and protocol-based care

- **Chronic** diseases that people learn to live with in self-care management

- Non-standard medically **complex cases** that can benefit from redesigned processes of care

And on the Horizon

- Pharmacy robots

- Digestible/imbedded sensors

- Artificial intelligence

- Watson diagnostics

- https://www.youtube.com/watch?v=HkEOJnn_zlg

Sources of Innovation

- Unexpected occurrences – successes and failures

- Incongruities between expectations and results

- Process improvement needs

- Industry and market changes

- Demographic changes

- Changes in perception

- New knowledge

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!Danger Zone!

- Success weighs an organization down as they miss opportunities for new products and services – *they work on sustaining and not on innovating*

- Success traps leaders as their capabilities become their innovative disabilities

Traits of Successful Innovators

- Look, ask and listen

- Use the left and right side of their brain

- Start small and keep it simple

- Are workers rather than geniuses

- Have knowledge and engage in hard, focused, purposeful work

Innovation Requires Leadership

- "Functional inspiration"
- Leaders create the context for innovation to occur
  - Creating and implementing the roles, decision-making structures, physical space, partnerships, networks and equipment needed to support innovative thinking and testing

Issues to Consider for Innovation Leadership

- Work location – traditional and non-traditional offices
- Use of media in work – digital transfer and sharing of work products quickly
- Time for work – any time, any place
- Communication – free flowing and electronic

Innovation in Nursing Education

- 495 article published in last 5 years

- But how many described true innovation rather than repairing, repackaging or renaming the same old, same old

Innovation in Nursing Education

- What are we faced with?
  - Too few faculty
  - Too many students
  - Too much competition for students
  - Too few clinical sites
  - Too much to teach/learn
  - Too few hours in a day!!

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"The Good"

- Online education – BSN, DNP, PhD

- Simulation as clinical experience

- Understanding that technology is the means to the end and not the end itself

- Emergence of learning analytics and instructional design capacity

- Accelerated nursing programs – BSN, DNP, PhD

- New teaching methods – flipped classrooms, learning immersions and problem based learning

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"The Bad"- Related to Faculty

- Death by continuous curriculum reviews
- Mummification by meetings
- Valuing nursing experience over education
- Insisting that only nurses can teach nurses
- Mandating faculty time in rank
- Up or out criteria in universities
- Non-tenure status of DNP faculty

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"The Bad"- Related to Students

- Students are "digital natives" while faculty are "digital immigrants"

- Students expect to be treated as customers rather than learners

- Educational opportunities continue to be largely bound by geography

- Rising costs of tuition and indebtedness

- Eulogy for the demise of the textbook – access, cost and timeliness

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And "The Ugly"

- Tradition – "I've always done it this way"
- Faculty who are Debbie Downers- "you can try it but it won't work"
- Adverse to piloting new approaches
- Accrediting/regulating/licensing boards – a thousand points of "no" and are the champions of the *status quo*
- Lack of adequate workforce reports
- Nursing faculty salaries – how low can you go??

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Disruptive Innovations

➢Can we reimagine nursing education?

– No "dabbling" but require only use of evidence-based, best practices in our teaching with flipped classrooms, use of technology, etc. – all supported by research

– Create personalized learning modules for adults learners, as one size does not fit all types of learners

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– Create competency-based programs of study rather than "time" in program

– Create student portfolios demonstrating competencies

– Consider whether all pre-service schools need to turn out the same product or can a school specialize in case management or community care

– Reconceptualize continuing education to meet the lifelong learning needs of nurses with learning "bites/bytes" and uncoupled education

– Create and use online, modular textbooks that are personalized, current and low cost

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Disruptive Innovations

➢ Let's be more efficient and effective in our teaching

- Standardize core curriculum that can be shared/purchased across schools and programs

- Have faculty "experts" do didactic lectures that are recorded and used by all schools across a region; clinical faculty then apply this knowledge in case studies

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- Create "Nodes of Excellence in Nursing Education" (NENEs) to consolidate costly, specialty programs of study (neonatal, midwifery) to achieve economy of scale and quality outcomes
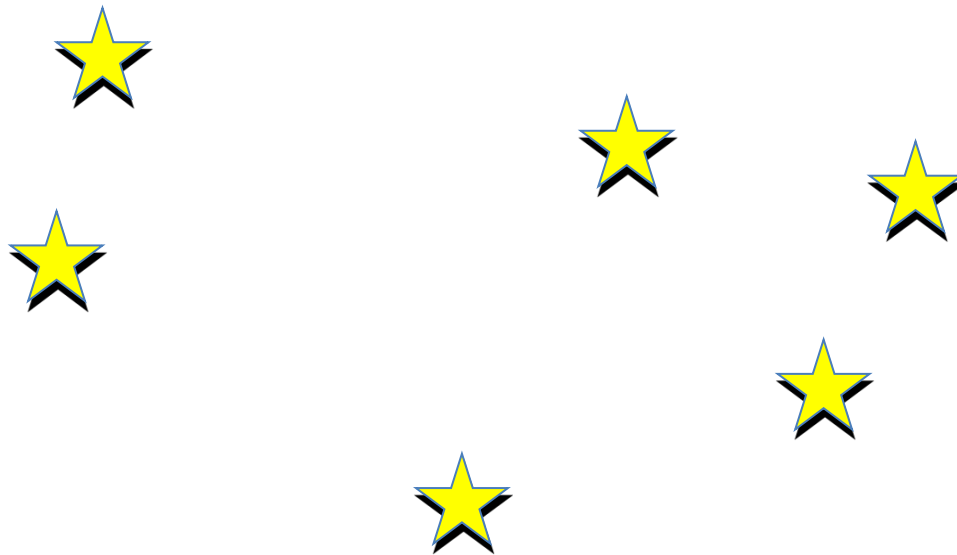
Disruptive Innovations

➢ Let's be leaders in health care education by rapidly expanding our use of virtual reality

– Augmented reality

– Microsoft holograms

– Virtual simulation

– Virtual reality

– https://www.youtube.com/watch?v=SKpKlh1-en0

Disruptive Innovations

➢ **Let's innovate by reforming and revitalizing the faculty role**

– Assure faculty evaluations reward innovation

– Permit faculty to excel in 3 rather than the 5 academic missions (teaching, practice, research, service, administration)

– Create a "Community of Faculty Scholars" – internal and external that values team science

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- Reconceptualize who can be faculty – qualifications, peer to peer learning by students
- Use tele-supervision to expand the number of qualified clinical preceptors
- Address issues of needed clinical hours, ratio of full-time to part-time faculty, and other regulatory barriers to innovation
- Eliminate "up or out" criteria and time in rank
- Allow all doctorally prepared faculty (PhD and DNP) to be eligible for tenure

Disruptive Innovations

➢ Are we teaching the right things?

- – How health care works: State and federal financing; organizational structures of health care facilities; global health

- – How to examine the impact of health care systems

- – How to influence health care policy – legislative advocacy

- We need to prepare nurses to impact "Patient Experience/Satisfaction' that is one of the major clinical measures of quality of clinical care
- At the end of the day we must help students learn the "need to know" and how to access the "nice to know"
- And we need to "storm the fort" of NCSBN so they test skills of the future and not of the past

Disruptive Innovations

➢ Insure that we are teaching the new and emerging health care technologies

- Remote-monitoring devices
- Remote physical assessment assessment peripherals – pulse oximeters, blood glucose monitors, medication tracking, "smart toilets"
- Mail order test kits
- Mobile health devices – wearable sensors
- Personal health record apps
- https://www.youtube.com/watch?v=BYXIg1S7nKk

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Disruptive Innovations

➢ Create publically posted Report Cards documenting each school's performance for students and faculty

– Students:
  • Licensing and Certification pass rates
  • Graduation rates
  • Ratio of full-time students to full-time faculty

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- Faculty
  - % doctorally prepared
  - % published in the last calendar year
  - % externally funded
  - % certified as Nurse Educators

Disruptive Innovations in Nursing Education-Practice Partnerships

- Create the role of Attending Nurses

- With the practice setting, share a vision, mission and FTEs

- Appoint CON Deans as Clinical Vice-Presidents for Nursing (like COM Deans)

- Consider having hospitals contract staffing through CONs

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What Skill Sets Are Needed?

- Digital and technology expertise
- Creative thinking and experimentation
- Data analysis and interpretation
- Strategy development
- Social networking
- Collaboration and team building
- Quality management

Strategies

- Toes in the water before deep dives

- Read non-nursing journals for ideas

- Innovative processes are as important as innovative products

- Calculated risk-taking

- Pilots

- Collaboration vs. competition

Tools Need

- Integrated databases for all aspects of the organization – student services, faculty and staff profiles

- Ability to track student outcomes and alumni data with standardized measures

- Computerized faculty workloads

- Streamlined faculty and staff evaluation processes

- Clear, transparent accounting processes

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Tools Needed

- Ability to "run the numbers" based on revenues and expenses

  - Cost out each program based on students FTEs and Faculty FTEs

  - Model future changes in enrollment, faculty FTEs and grants to assess the financial impact

  - Openness and transparency with faculty and staff regarding finances

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Tools Needed

- Ability to diversify the college's portfolio (state appropriations, tuition, research, clinical):

  – Research grant funders other than NIH

  – Development/fundraising opportunities from non-traditional sources

  – Entrepreneurial ventures that raise money for the college through licensing or royalties

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And on the Horizon……

- More innovation
- Less business as usual
- Greater use of data
- Externalized metrics
- Increased transparency
- Accountability for outcomes

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