

**"We need to do more than give anesthesia!" –
How do you incentivize colleagues to do new activities?**

**Incentives &
Behavior Modification Systems**

Amr Abouleish, MD, MBA
University of Texas Medical Branch
aaboule@utmb.edu

Disclosure

- ECG Consultants
 - Technical Advisor
 - Focus on Staffing Models

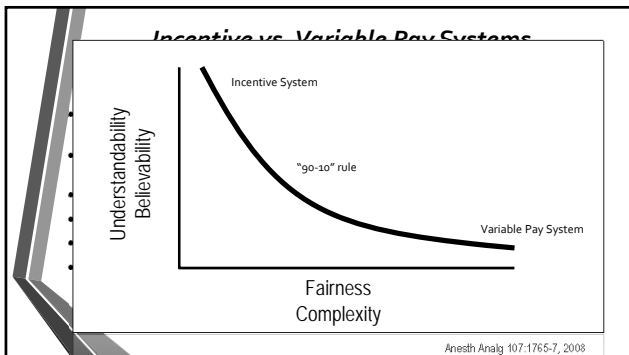
Incentives

- Incentives vs. Variable Pay
- What is an incentive?
- Behavior Modification Principles
 - Pinpoint Relevant Behavior
 - Charting Behavior
 - Choosing a Contingent Reinforcement
 - Reassess
 - Worked, Maintain System
 - Not Worked, Reassess Behavior
 - Examples

Incentive vs. Variable Pay Systems

<p><u>Incentive</u></p> <ul style="list-style-type: none"> • Only activities don't want to do & the group needs to do to be successful! • Base Salary → most activities/behavior • Base salary + incentive (20%) • Simple • Easier to understand and administrate • Feedback immediate 	<p><u>Variable Pay</u></p> <ul style="list-style-type: none"> • All productive activities • Base salary → covers very little • Small base + large variable (75%) • Complex • Information system needed • Feedback not immediate
--	---

Anesth Analg 107:1765-7, 2008



Incentive vs. Variable Pay Systems

<p><u>Incentive</u></p> <ul style="list-style-type: none"> • Only activities don't want to do & the group needs to do to be successful! • Base Salary → most activities/behavior • Base salary + incentive (20%) • Simple • Easier to understand and administrate • Feedback immediate 	<p><u>Variable Pay</u></p> <ul style="list-style-type: none"> • All productive activities • Base salary → covers very little • Small base + large variable (75%) • Complex • Information system needed • Feedback not immediate
--	---

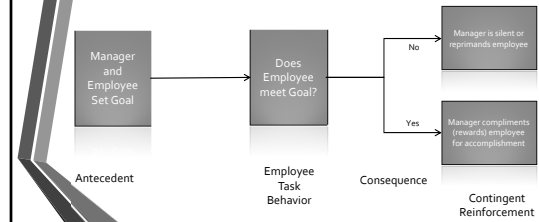
Anesth Analg 107:1765-7, 2008

What is an Incentive?

- If all things were equal, how do you decide what to do each day?
- To do something that is at odds to your personal preference, you need an incentive (that outweighs personal satisfaction)!
 - Why get up and go to work?
 - Why sit in this lecture rather than in the hot tub?
 - Why not have that dessert (or extra dessert)?
 - Why stay in academics? (non-financial incentives)
- Therefore, incentives are really ...
 - Behavior Modification Systems

Anesh Anah 2005:100-490

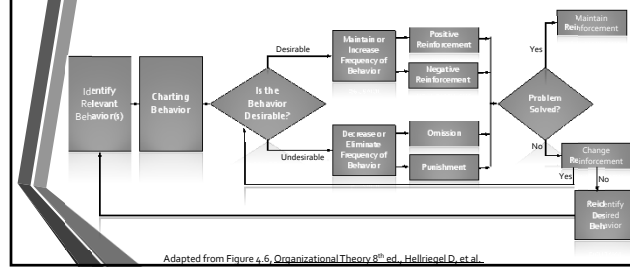
Behavior Modification: Just Goal Setting?



Behavior Modification More than Goal Setting, but Changing Behavior

Adapted from Figure 4.6, Organizational Theory 8th ed., Hellriegel D, et al.

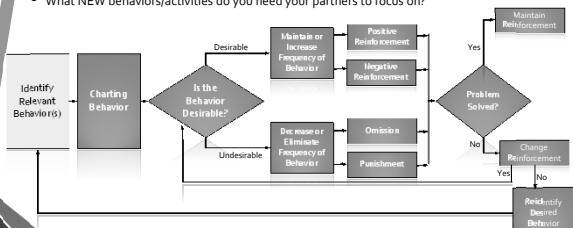
Behavior Modification More than Goal Setting, but Changing Behavior



Adapted from Figure 4.6, Organizational Theory 8th ed., Hellriegel D, et al.

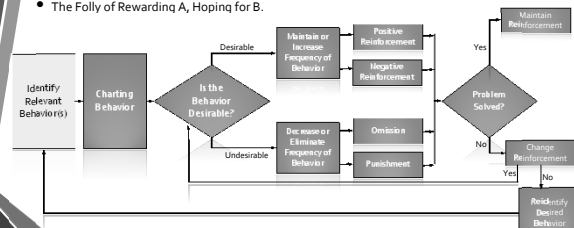
Behavior Modification Principles

- The biggest challenge.
- What behaviors will help your group succeed? Or fail?
- What NEW behaviors/activities do you need your partners to focus on?



Behavior Modification Principles

- Caution in choosing what to incentivize or reward!
- The enemy of Good is Better. If it ain't Broke... Don't simply set up incentives if none needed
- The Folly of Rewarding A, Hoping for B.



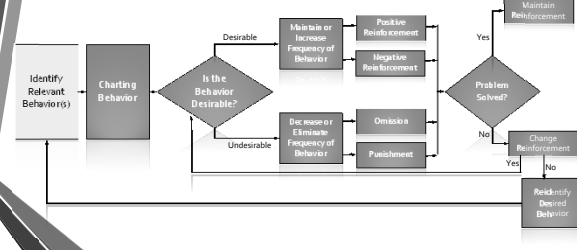
Folly of Rewarding A, Hoping for B

- Multiple examples.
- Important to understand what a measurement values or devalues.
- Examples from OR management:
 - B = Better OR throughput, A = first case starts on-time incentive
 - B = Better ROI of OR time, A = utilization to determine block time

Academy of Management Executive 1995;9:7-14

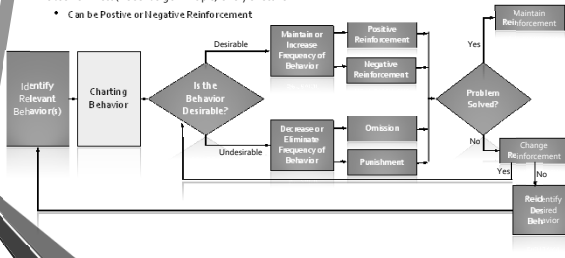
Behavior Modification Principles

- The biggest challenge.
- What behaviors will help your group succeed? Or fail?
- What NEW behaviors/activities do you need your partners to focus on?



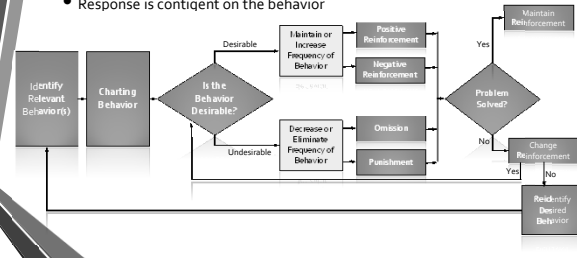
Behavior Modification Principles

- Develops buy-in
- Timing is important: the closer the reinforcement is to behavior better success
- Observer Effect (Heisenberg's Principle) is very effective
 - Can be Positive or Negative Reinforcement



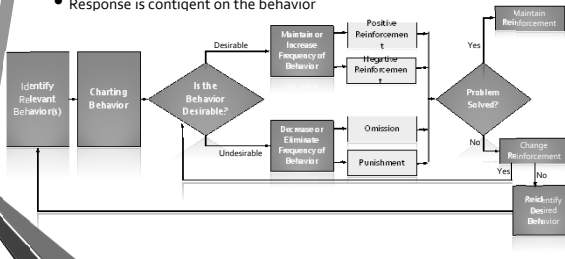
Behavior Modification Principles

- Contingent Reinforcement
- Response is contingent on the behavior



Behavior Modification Principles

- Contingent Reinforcement
- Response is contingent on the behavior



Contingent Reinforcement: Positive Reinforcement

- Goal: Increase Frequency of Behavior
- Most Effective Reinforcement
- Reward is not necessarily same as reinforcement
 - A Reward is a Reinforcer if reward increases the behavior
 - Reward – an event that person finds desirable or pleasing
 - Depends on the person – if not viewed as a "reward", then no change in behavior
 - Timing is very important. A connection to behavior and reward.
 - "Secondary reactions" – may lead to decreasing behavior rather than increasing

Contingent Reinforcement: Positive Reinforcement

- Most common one – money or compensation
- Most effective may not be money. Why Leadership matters.
 - Verbal approval
 - Assignment to desired tasks
 - Titles, promotions
 - Extra time off
 - Input taken, ownership of work flow, more independence
- Job satisfaction: Highest when paid market compensation and have a rewarding work environment

Money is Not the ONLY Motivator

- Haifa Day Care Centers closed at 4 pm.
- Most parents picked up kids by 4 pm.
 - If they were late, they relied on generosity of one teacher.
 - Being late meant facing that same teacher and apologizing to her
- Experiment.
 - Randomly chose 6 of 10 daycares, small fine for showing up more than 10 min late
 - Results: parents immediately showing up late at 2X initial rate
 - Removed fines, and ...
 - ...rate did not go back to baseline
- Implication: non-financial incentives: "Social" norm, contract, guilt.
- If you monetize an activity, then you may devalue the activity
 - <http://freakonomics.com/2013/10/23/what-makes-people-do-what-they-do/>
 - <https://doi.org/10.1006/jlabeco.2000.2913-17>
 - <https://libr.org/2006/04/when-economic-incentives-backfire>

Contingent Reinforcement: Negative Reinforcement

- Goal: Increase Frequency of Behavior
- Not same as punishment (used to decrease frequency)
- Escape Learning: unpleasant event occurs until person performs a behavior, or escape response, to terminate it
 - Alarms on the monitors, Saturation lower tone
- Avoidance Learning: person prevents unpleasant event from occurring by completing the proper behavior
 - Publishing list each day of delayed first case starts or long turnovers by anesthesiologist
 - Publishing patient satisfaction scores by anesthesiologist

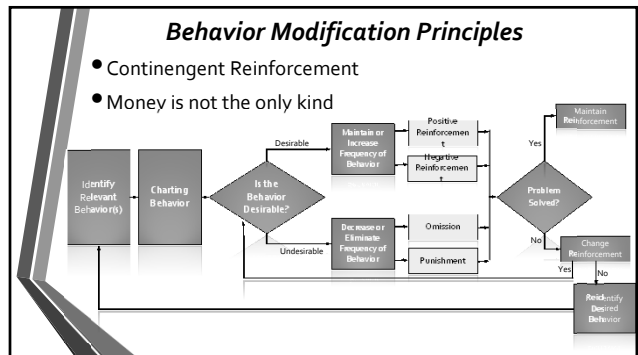
Contingent Reinforcement: Omission

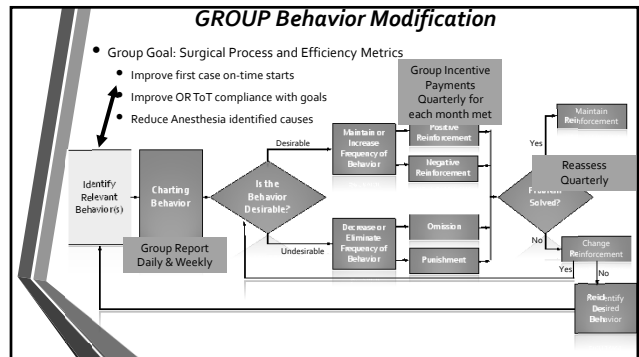
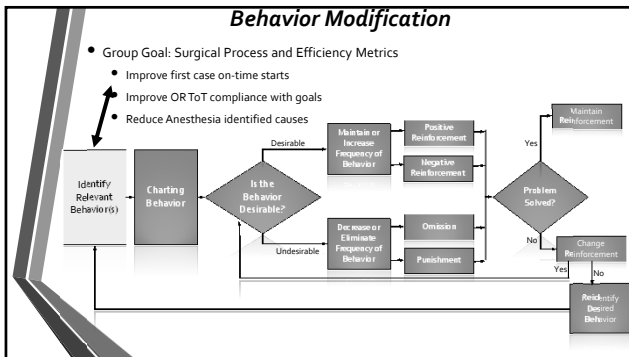
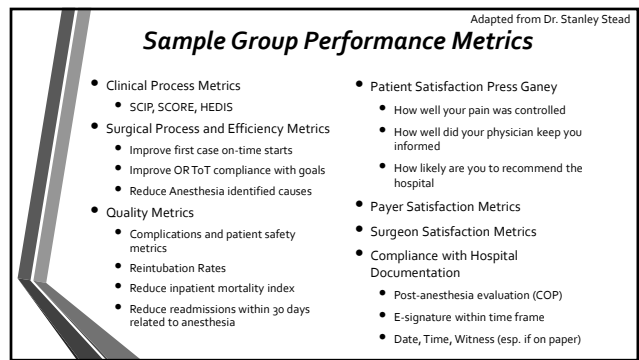
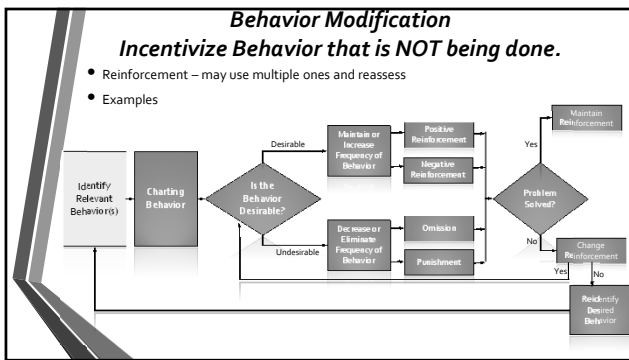
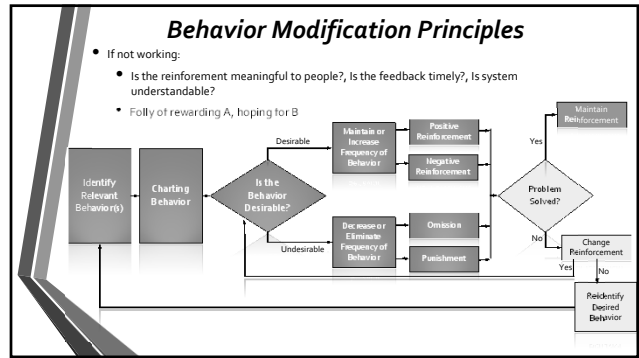
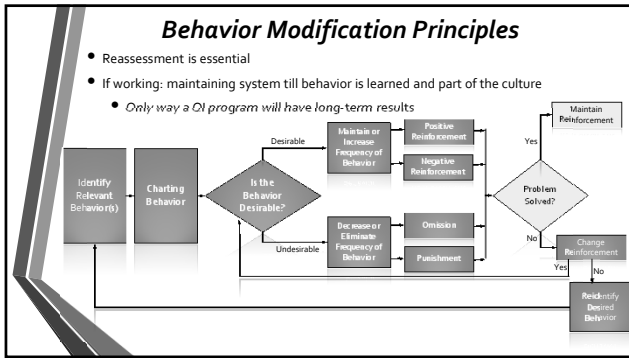
- Goal: Decrease Frequency of Behavior
- Omission: Removal of all reinforcing behavior
- 3 Steps:
 1. Identifying the behavior to be reduced or eliminated
 2. Identifying the reinforcer that maintains the behavior, and
 3. Stopping the reinforcer
- Examples:
 - Meeting starting time. Start meeting at the time scheduled. Don't wait for everyone. If someone comes in late, just ignore it.
 - Inappropriate jokes. Stop laughing at them
- Careful – Omission can be done by accident
 - Omission = failure to reinforce a behavior.
 - Mistake is when one doesn't reinforce desirable behavior → decrease in frequency through omission

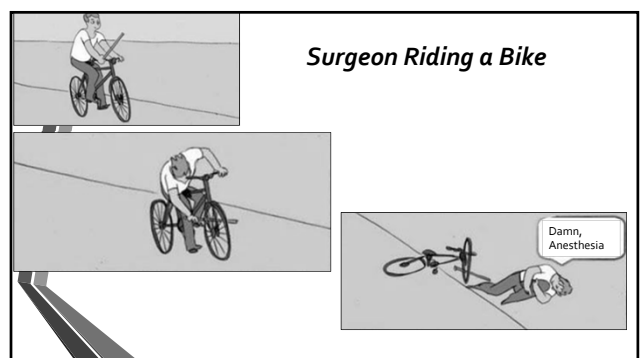
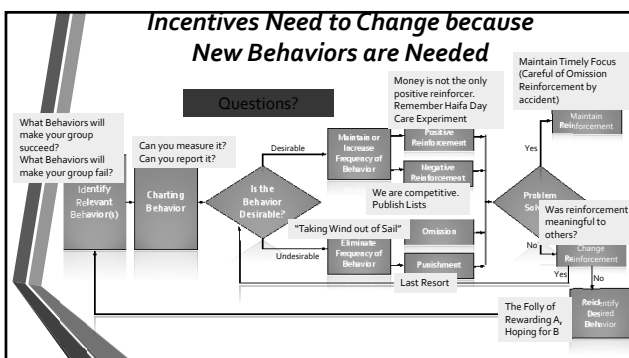
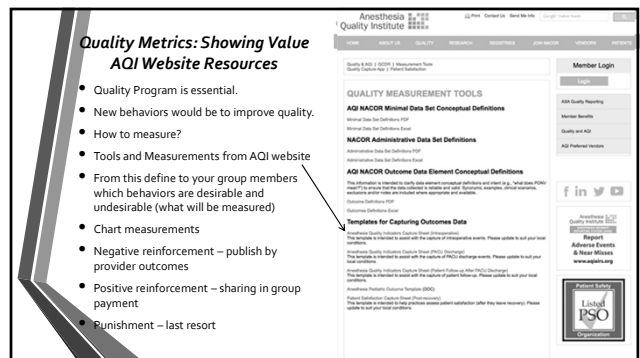
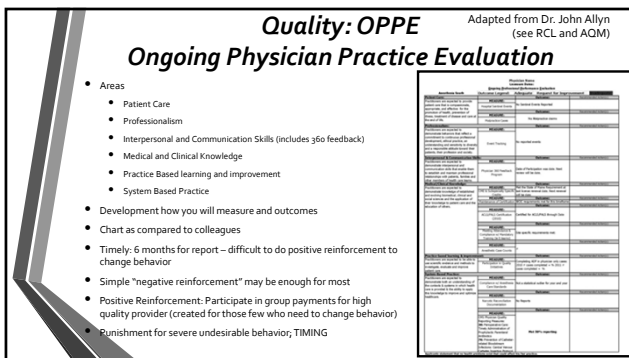
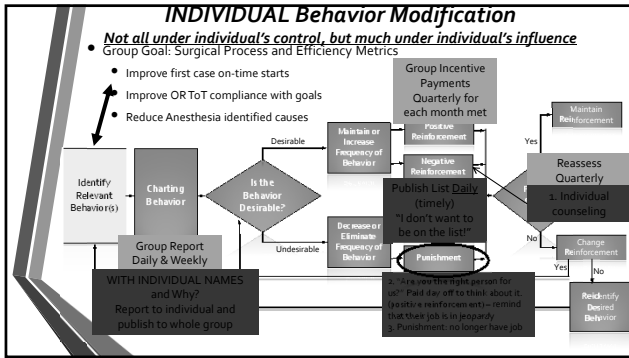
Contingent Reinforcement: Punishment

- Goal: Decrease Frequency of (undesired) Behavior
- Should be reserved only in cases of serious behavior problems
- To be effective
 - Needs to be linked directly to undesired behavior
 - Immediate feedback
 - Size – should fit the issue
- Negative Effects of Punishment are numerous
 - Although short-term may work, long-term undesired behavior can occur
 - Apathy, high turnover or absenteeism, aggressive or disruptive behavior
 - Learned helplessness & Pygmalion effect²
- Remember: Punishment can be interpersonal – both verbal and nonverbal

1 Anesthesiology 2010;112:1067-9







Reality

Healing is an Art

Medicine is a Science

Healthcare is a Business