

Effective Behavior Based Safety Programs

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Agenda

- ❑ Behavior Based Safety (BBS) Background
- ❑ History
- ❑ Importance
- ❑ Approaches: Micro & Macro
- ❑ Principles of BBS
- ❑ Common Obstacles
- ❑ Program Implementation
- ❑ Checklist
- ❑ Digital Tools
- ❑ Three Key Take Aways



Background

History

Importance

What is Behavior Based Safety?

- ❑ Science of behavior change to real world problems
- ❑ Safety system to identify, observe and reinforce positive behaviors
- ❑ Focus on what people do, why they do it, and applies intervention to eliminate unsafe behaviors
- ❑ Analyzing the consequence of a behavior and providing reinforcement
- ❑ There are no regulatory requirements





History

- Herbert William Heinrich, 1930s
- 90% of all accidents, injuries and illnesses were “worker errors”
- Heinrich’s Law
- Common root causes
- Address the cause of non-injury to prevent injury



History

- 1970s Behavior Based Safety
 - Gene Earnest and Jim Palmer
 - Employed by P&G to reduce injuries
- Current day, workplace accidents
 - 6% Environmental factors
 - 94% Unsafe behaviors



Importance

- ❑ Trust and cooperation between all levels of the organization
- ❑ Long-term solutions to eliminate risks and hazards
- ❑ Safety as a value
- ❑ Reduce unsafe behaviors and continuously improve on safety performance





Approaches to BBS

Approach to BBS

Two approaches:

- Micro
 - Individual behavior(s)

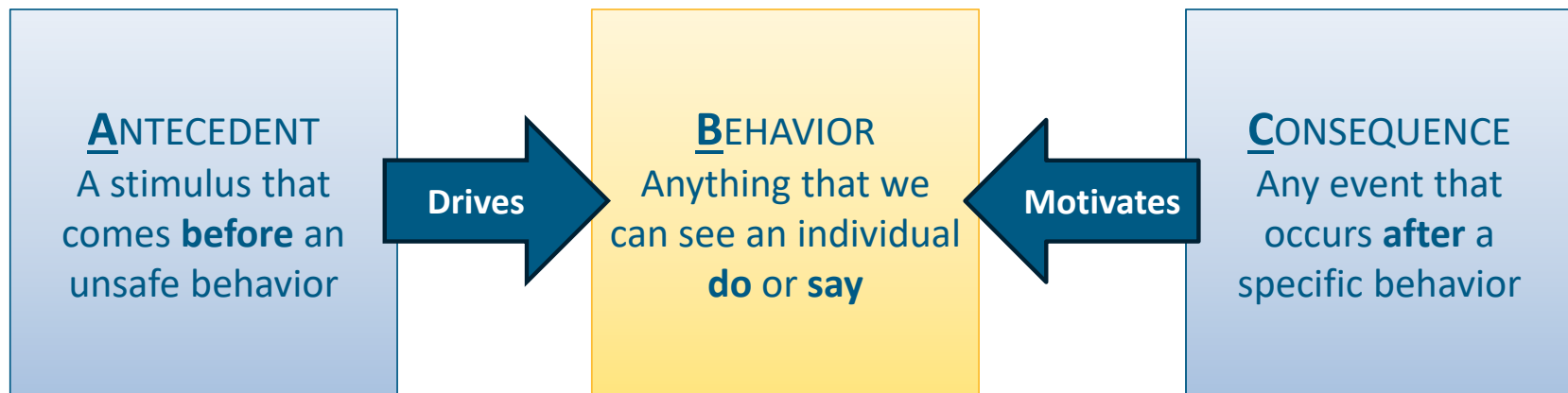
- Macro
 - Permanent organizational change





Micro Approach

- Aim is behavior change
- Thomas Krause's ABC Model
- Reinforcement and feedback





Micro Approach: 7 Steps

1. Identify problematic behaviors
2. Determine root cause
3. Corrective actions
4. Evaluate
5. Develop processes
6. Implement the program
7. Gather and evaluate data



Micro Approach: Observations

Example: Personal Protection Equipment (PPE)

- Focus on how the *person* is using their PPE
 - Does their PPE fit?
 - Are they wearing it correctly?
 - If not, why?
 - Is the PPE in good condition?
 - If it is not, why?

- Key to success: negative AND positive safety observations



Macro Approach

- Aim is culture change
- Safety First culture
- Michael Topf's 6 step process
- Applied to all levels of the organization



Macro Approach: 6 Steps

1. Assess and analyze culture
2. Teach and train
3. Encouragement
4. Reinforcement
5. Continuous support and commitment
6. Evaluate and provide feedback





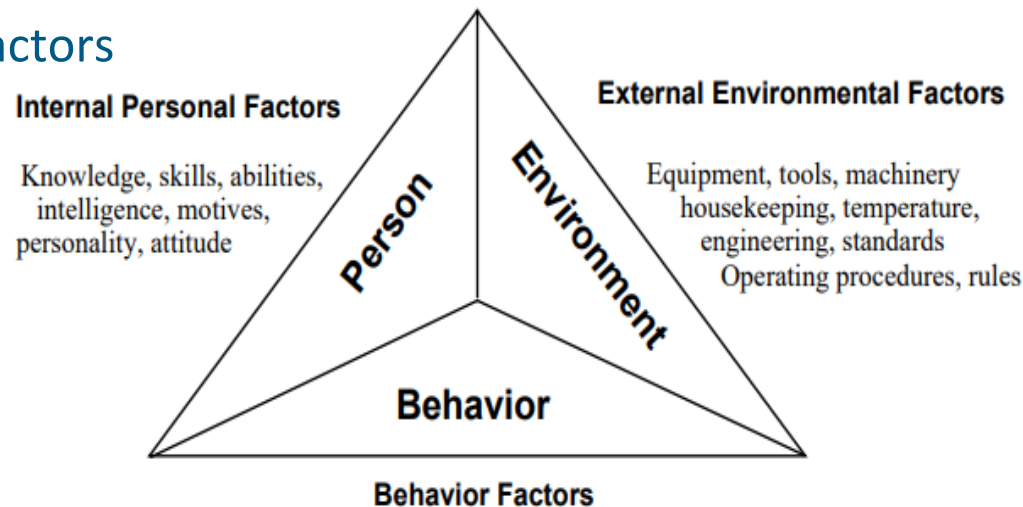
Macro Approach: All Levels

Apply the strategy to all organizational levels

- **Self** – Personal responsibilities, self attitudes and behaviors
- **Peer** – Peer interaction and support for safe attitudes and behaviors
- **Leader** – Consistent safety commitment, communications, and messages
- **Organizational** – Culture with values, commitment and behaviors that reflect clear vision

BBS Principles

- Integrated approach: individual and organizational behaviors
 - All levels are equally important
- E. Scott Geller – 3 factors of a safety culture
 1. Internal personal factors
 2. External environmental factors
 3. Behavior factors





Geller's Seven BBS Principles

1. Observable behavior interventions
2. External factors to understand and improve behaviors
3. Antecedents to direct, consequences to motivate
4. Highlight positive to reinforce favorable behaviors
5. BBS program is measurable and objective
6. Create and combine gathered information, do not limit
7. Employee's feelings and attitudes



Obstacles

Influencing the Culture



Common Obstacles

- ❑ Safety Cops
- ❑ Cutting corners
- ❑ Misplaced priorities
- ❑ Poor role models
- ❑ Encouraging risks
- ❑ Complacency - “It won’t happen to me”
- ❑ Lack of trust
- ❑ Fear



Feedback

- ❑ Positive and negative
- ❑ Equally as important as the observation
- ❑ Best results – Feedback Loop

- ❑ Example: PPE (Glove use)
 - Team failing to wear
 - One way: reminder on OSHA compliance and protection
 - Loop: gloves don't fit/style gets in the way
 - Root cause: restricted movement

- ❑ Safety stand down or toolbox talk



Feedback Tips



- Anyone can provide feedback
 - Corrective and specific
 - Offer a solution and apply to the work and task
 - Avoid generalities
- Stay on topic
- Keep the feedback focused on the behavior
- Avoid tying discipline directly into the feedback, when possible



Culture Influence

Core beliefs to combat the obstacles:

- ❑ All injuries are preventable
- ❑ Working safely is a condition of employment
- ❑ All risks will be identified, addressed, and managed
- ❑ Educating and training employees to work safely is essential
- ❑ Preventing injuries
- ❑ Safety will never be compromised for production or convenience
- ❑ Stop Work Authority
- ❑ The continuing health and wellness of each employee is vital to our long-term success





Implementation

Tools

Program Implementation

- Open Communication
- Reporting Culture
- Management Commitment
- Timely Reaction



BBS Checklist

- ❑ Essential part of the program
- ❑ Used to determine safe and risky behaviors
- ❑ Pinpoint root cause
- ❑ Include observation steps for an effective behavior audit



BBS Checklist

- ❑ Introduction
- ❑ Discussion on the job
- ❑ Observe
- ❑ Provide feedback

- ❑ Items to include on the checklist
 - PPE
 - Body usage and position
 - Tools and equipment
 - Eyes on path/hands
 - Routine and non-routine tasks
 - In addition to hazard and risk assessments





Next Steps

□ Data

- Identify trends - areas with significant findings
- Corrective and preventive action plans
- Proactive risk management

- Correct the risks early, **before** they become incidents or issues, is much less expensive than investigations, compensation, remediation and employee absence.





Next Steps Continued

- According to a 2009 study published in the European Journal of Social Psychology, it takes 18 to 254 days for a person to form a new habit
- The study also concluded that, on average, it takes 66 days for a new behavior to become automatic.
- Change takes time
 - Frequency
 - Systemic vs. one-time corrections

Digital Tools

- ❑ Tools available to efficiently collect behavioral observations
- ❑ Checklists can be distributed
- ❑ Results easily gathered
- ❑ Data efficiently collected and organized

- ❑ Other notable features:
 - Ability to include photos or videos
 - Assign corrective actions
 - Data analytics





Conclusion



Summary

- There are different approaches to BBS.
- Uses safety observations to indicate strengths and weaknesses in workplace safety programs.
- Acknowledges that safety doesn't rely on engineering or technical practices alone. It can be a balance between the technical aspects of design and the management of human behavior.
- Requires you to collect information on both safe and unsafe behaviors as well as workplace conditions.



Three Key Take Aways

- BBS is a pragmatic approach to remove “human error”
- A comprehensive program observes employees while they perform routine tasks, providing them with continuous feedback, motivation and awareness to reinforce their behavior to align with safe work practices.
- Primary goal is to ***positively reinforce*** safe behavioral patterns while addressing unsafe acts, and ensure timely interventions are in place to encourage continuous improvement.



Conclusion

- Focus on effective improvement
- BBS is a journey, not a destination
- There will always be room for improvement
- The goal is to continuously strive for a better workplace

Thank you!

Questions or Comments?

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Biographical Information

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Ms. Sparks is a Managing Consultant at ALL4 LLC, an environmental, health and safety consulting firm in Lexington, KY. Her firm is focused on environmental and OSHA, EPA and DOT compliance, management systems, digital solutions and more. She has assisted in the development and expansion of the EHS practice within ALL4 by providing resources and client support with safety program development, industrial hygiene exposure assessments, hazardous waste and EPCRA reporting, air quality compliance, emergency planning and response, incident investigations, and ISO 14001 and 45001 management systems.

Ms. Sparks has a Bachelor of Science degree in Environmental Health Science from Eastern Kentucky University (2015). She also holds a Master of Science degree in Occupational Safety, Security and Emergency Management from Eastern Kentucky University (2018) and is the Health and Safety Technical Lead at ALL4.