**Why Don’t People Use PPE?**

Dr. David Dejoy, University of Georgia

A Webber Training Teleclass

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**Why Don’t Workers Use PPE?**

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**The Problem**

- Compliance with PPE is frequently poor or inconsistent
- In-use levels of effectiveness often fall short of theoretical effectiveness
- PPE compliance depends on human reliability
- PPE are at the bottom of the hazard control hierarchy for some valid reasons
- There are situations, however, where PPE use is unavoidable

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**Overview**

- PPE compliance is not as simple as we might think
- PPE usage is not just a worker issue
- Compliance needs to be examined as a multi-component, behavioral process
- Training is important to compliance, but it is not the whole story
- Reinforcement/feedback (behavior-based) strategies can be useful in some situations
- Safety climate is important but our knowledge base is incomplete

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**Unpacking the Compliance Process**

At least 5 sets of factors or components need to be analyzed any PPE application

Agent Device User Task Context

Attributes of each component can facilitate or impede compliance; in many applications, compliance is only as good as the weakness component

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**Factors Influencing Compliance**

- **Agent**
  - resistance
  - transmission
  - persistence
  - infectious dose
  - permissible limit
  - etc.
- **Device**
  - comfort
  - complexity of use
  - protective efficacy
  - etc.
- **User**
  - knowledge
  - attitude
  - skill
  - task perceptions
  - internal/external sensitivities
  - etc.
- **Task**
  - complexity/mobility
  - hazard frequency
  - interpersonal/communication dynamics
  - physical/psychological demands
  - etc.
- **Context**
  - work setting/environment
  - external/organizational characteristics (meta/meta)
  - etc.

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**Compliance: Traditional View**

- **Agent**
  - resistance
  - transmission
  - persistence
  - infectious dose
  - permissible limit
  - etc.
- **Device**
  - comfort
  - complexity of use
  - physical/psychological demands
  - etc.
- **User**
  - knowledge
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  - work setting/environment
  - external/organizational characteristics (meta/meta)
  - etc.
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Compliance: Expanded View

- **Agent**
  - resistance
  - transmissibility
  - persistence
  - infective dose
  - susceptible host
  - etc.
- **Device**
  - comfort
  - complexity of use
  - protective efficacy
  - etc.
- **User**
  - knowledge
  - attitudes
  - skill
  - self-perception
  - tolerance/sensitivity
  - etc.

- **Task**
  - complexity/mobility
  - based frequency
  - interperson/communication dynamics
  - physical/psychological demands
  - etc.
- **Context**
  - work setting/environment
  - social/organizational characteristics (macro/micro)
  - etc.

Compliance: Interactive View

- **Work Task/Procedure**
  - **Agent/Pathogen**
  - **PPE Device/Ensemble**
  - **Health Care Worker**

- **Environmental/Organizational Context**

- **Policy**
- **Standards**
- **Certification**

Stage or Sequential Model of Self-Protective Behavior

- **Hazard**
  - **Appraisal**
  - **Decision Making**
  - **Initiation**
  - **Adherence**

- **Exposure to Injury Illness**

DeJoy (1996) 1) Active process, 2) Personal judgments of risk, 3) Stages of compliance

Stages and Constructs of S-P Behavior

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<th>Construct</th>
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P = primary importance; S = secondary importance

Different constructs important at different stages
Conditions and climate important to transfer of training

DeJoy (1996)

Training & Constructs/Stages of S-P Behavior

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Knowledge-based Training
Best Practice-based Training

DeJoy (1996)
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Training and PPE Compliance
- Training necessary but usually not sufficient
- Correlation between # training hours and compliance is often surprisingly weak
- Type of training is important
  - Knowledge-based
  - Knowledge and skill development (behavioral capability)
  - Behavioral modeling, practice, and dialogue (2-way communication) (knowledge, skill, & motivation)

Reinforcement/Feedback and Compliance
- Reinforcing compliance can boost rates of compliance, as can providing feedback on performance
- Works best for simple, discrete, frequently repeated behaviors
- Compliance diminishes with withdrawal of reinforcer
- Approach may be susceptible to “gaming”

Safety Climate
- Shared perceptions of employees about the importance of safety (the relative importance of)
- Shapes behavior-outcome expectations
- Management commitment
- Enacted policies and procedures (actions > words)
- Social exchange
- Leading indicator of safety performance

Safety Climate: Knowledge Base
- Uni-dimensional or Multi-dimensional concept
- No universal agreement on key dimensions of safety climate
- Limited understanding of safety climate antecedents
- Very limited research on safety climate interventions

Safety Climate: Multi-level Perspective

Micro-Macro Organizational Factors
- Macro Organizational Factors
  - Top management support
  - HR and management practices
  - Structure/technological complexity
  - Firm competitive position
  - etc.
- Micro-organizational Factors
  - Work processes/inputs
  - Workgroup characteristics
  - Communication/involvement
  - Supervisor characteristics
  - etc.

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Conclusions
- PPE should be considered as part of a comprehensive hazard control strategy
- PPE compliance is a multi-component, behavioral process
- Workers’ ability to make judgments of personal risk
- Different factors are important at different stages of compliance – These are potential leverage points
- Training is important but it needs to go beyond basic knowledge
- Facilitating (enabling) conditions and workplace climate enhance transfer of training, and are key to day-to-day, ongoing compliance
- Meta-organizational factors may be initial priority for climate-related interventions
- Participatory/engagement strategies may be more effective than formal/organizational policy statements

Thanks
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