

Why Don't People Use PPE?



Dr. David DeJoy, University of Georgia

A Webber Training Teleclass

Why Don't Workers Use PPE?

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Hosted by Paul Webber
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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



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

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




Factors Influencing Compliance

<ul style="list-style-type: none"> ■ Agent <ul style="list-style-type: none"> ■ virulence ■ transmission ■ persistence ■ infectious dose ■ permissible limit ■ etc ■ Device <ul style="list-style-type: none"> ■ comfort ■ complexity of use ■ protective efficacy ■ etc ■ User <ul style="list-style-type: none"> ■ knowledge ■ attitudes ■ skill ■ risk perceptions ■ tolerance/sensitivity ■ etc 	<ul style="list-style-type: none"> ■ Task <ul style="list-style-type: none"> ■ complexity/variability ■ hazard frequency ■ interpersonal/communication dynamics ■ physical/psychological demands ■ etc ■ Context <ul style="list-style-type: none"> ■ work setting/environment ■ social/organizational characteristics (micro/macro) ■ etc
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Compliance: Traditional View

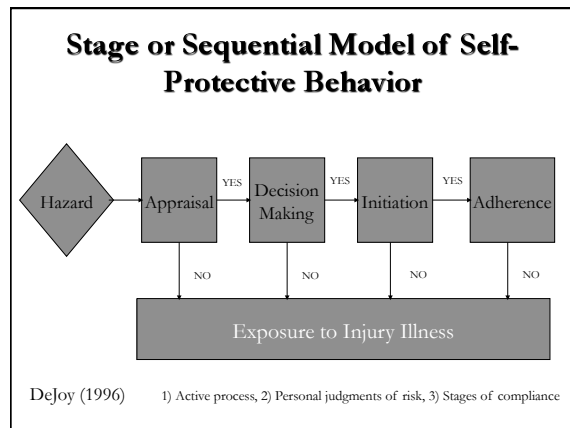
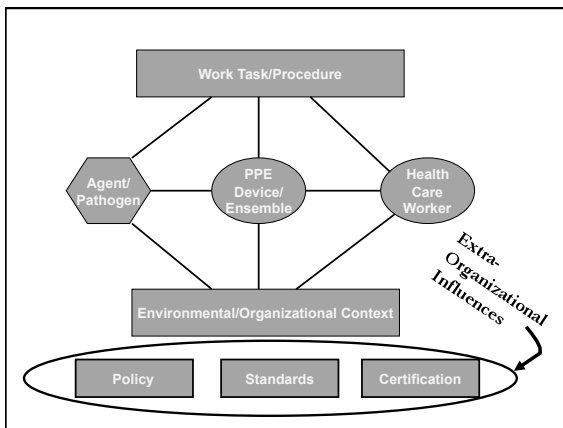
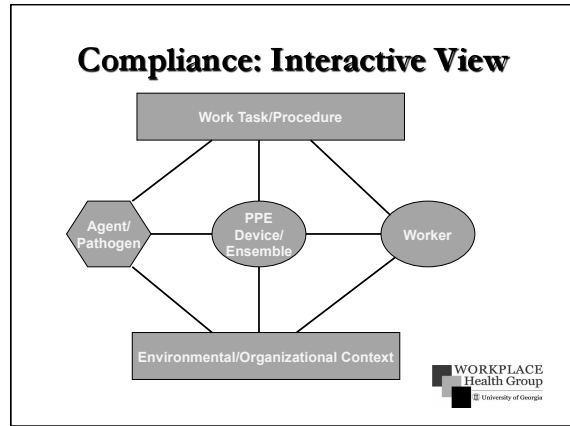
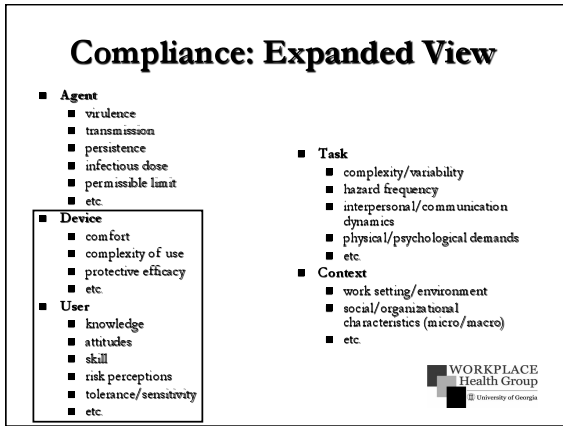
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Stages and Constructs of S-P Behavior

Construct	Hazard Appraisal	Decision Making	Initiation	Adherence
Threat-related beliefs	P	S	S	S
Response efficacy	P	P	S	S
Self-efficacy	S	P	P	S
Facilitating conditions	S	P	P	P
Safety climate	S	P	P	P

P = primary importance; S = secondary importance
Dejoy (1996)
Different constructs important at different stages
Conditions and climate important to transfer of training

Training & Constructs/Stages of S-P Behavior

Construct	Hazard Appraisal	Decision Making	Initiation	Adherence
Threat-related beliefs	P	S	S	S
Response efficacy	P	P	S	S
Self-efficacy	S	P	P	S
Facilitating conditions	S	P	P	P
Safety climate	S	P	P	P


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)

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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”

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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

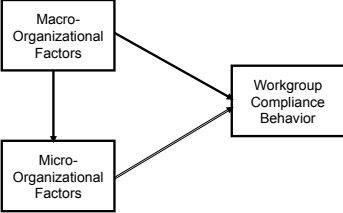
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Safety Climate: Knowledge Base


- 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

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Safety Climate: Multi-level Perspective





(e.g., Hofmann et al, 1995; Neal & Griffin, 2004; Simard & Marchand, 1997)

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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/risks
 - 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 actively 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
- Micro-organizational factors may be initial priority for climate-related intervention
- Participatory/involvement strategies may be more effective than formal/organizational policy statements

Thanks

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