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SAFETY LEADERSHIP

Does SIF = Failed BBS?

The current behavior-based safety practices are not proving effective in preventing serious injuries and fatalities.

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Serious injuries and fatalities (SIFs) have not decreased at the same rate as less-serious injuries over the past three decades. During this period, behavior-based safety (BBS) was one of the most popular new processes to be implemented in the workplace. Since there was a strong correlation between the use of BBS and decreases in accident rates, BBS was credited with contributing to the

improvements. Some of the credit was deserved and some is questionable, but the fact remains that neither BBS nor any other safety effort decreased SIFs during this period.

So what, if anything, is the relationship between BBS and SIF, and how did this disconnect between accident severity develop? Let's look at five factors that may have contributed.

1. HEINRICH

Herbert William Heinrich was an assistant superintendent of the engineering and inspection division of Traveler's Insurance Company who published a work on safety in 1931, which was subsequently followed in most approaches to BBS. He postulated that as many as 95% of all accidents were caused by "unsafe acts" and only a few were caused by workplace conditions.

While Heinrich had thousands of accident investigations to substantiate his conclusions, most were completed by supervisors with little or no training in investigative techniques and no focus on factors that impacted these unsafe acts. Heinrich also observed that there was a numerical ratio of serious events to larger numbers of less serious events, which led his followers to believe that working on the causes of all events would impact severity in the same ratios. He illustrated this concept as a pyramid with unsafe acts as the base, near-misses next, then levels of higher severity all the way to fatalities at the tip.

The age of Heinrich's findings and the poor quality of his input data was not questioned until after the efforts to address SIFs was well underway.

2. SUBJECT MATTER EXPERTS (SMEs)

The earliest founders of BBS were all academics. They tended to define safety in terms of their own educational expertise: psychology, sociology, behavioral science, performance management, etc. While this gave BBS a sound scientific foundation, it tended to ignore the business reality and environmental issues. Processes were developed and formulas postulated that did not always allow for organizational and industrial differences.

It has long been a technique of academic research to attempt to isolate the thing to be studied so it could be observed without being influenced by other factors. Thus, worker behaviors were viewed in a vacuum as something to be modified without the need to address other factors that could impact accidents. Since Heinrich was published and peer-accepted, academics accepted his premises without question.

3. SELECTION OF BEHAVIORS

The earliest forms of BBS simply copied a list of behaviors from another site or vendor and pursued modifying those behaviors. Some brainstormed a list of behaviors thought to be most important. Later, several practitioners discovered that Pareto-type analysis of past accident data could help form a better-targeted list of precautionary behaviors that could more effectively impact accidents.

Even then, most BBS processes tried to modify too many behaviors at the same time. This resulted in slow progress and a reliance on regular feedback from observers to keep the long list of behaviors in mind. Almost no early observation checklists even considered severity potential, much less focused on the behaviors most crucial to prevent serious injuries.

4. REINFORCEMENT

The premise that what gets reinforced gets repeated is not seriously questioned. However, most early BBS processes defined reinforcement as feedback from a fellow worker. Many processes did

little to get worker buy-in to the behaviors on the list, so feedback was given in a skeptical context.

It took a long time to show feedback was changing behaviors, and behaviors were impacting accident frequency. Still, severity was not a separate consideration since Heinrich convinced us that working on the unsafe acts at the bottom of the pyramid would impact ALL of the accidents, including the top.

5. OVERLOOKING INFLUENCES

Human and Organizational Performance (HOP) was developed, in part, because of

the discovery that many BBS approaches not only missed the concept of severity, but also ignored influences on worker behavior that competed with observer feedback. Since observation feedback was viewed as the needed reinforcer, other factors were largely overlooked. These other factors were often involved, directly or indirectly, in more severe accidents and fatalities. HOP tends to speculate which factors shape behaviors and address them.

The mainstream of BBS had the perfect opportunity to discover these influences on behavior at the point when the behavior was observed. But instead of asking why and documenting the influences on behaviors, they just kept on giving feedback and trying to artificially change them.

BLAME THE WORKER

Many early founders of BBS now say they never intended it to be a "blame the worker" process, but they were quick to quote Heinrich to sell their process. So which dialogue shaped the reactions of organizational leaders: "Don't blame the worker," or "The unsafe acts of your workers are responsible for up to 95% of your accidents"? The fallacies of Heinrich's assumptions have been challenged and exposed in recent years, but his work highly impacted the focus of BBS efforts. This focus in the mainstream of BBS ignored both severity concerns and other influences on behavior from the workplace, leadership and culture.

In defense of BBS, not all approaches fell into these traps, but the ones that did not were a small portion of the overall number of BBS implementations over this period. Some forms of BBS do not even claim to address SIFs but leave that to traditional safety. These approaches simply use BBS to mop up the lower-probability and lower-severity accidents that tend to get missed by traditional administrative controls. Whether or not your approach to BBS addresses SIFs, you really need to consider preventing them one way or another because the current practices are not proving effective in doing so.

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