

**Employee Experience and Perseverance in an  
Organizational Road Safety Intervention -  
Mixed Method interdisciplinary study, with texting while driving as  
exemplar**

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## **General Abstract**

Prevention of road accidents is an important global health and safety issue. Unsafe driving practices such as texting while driving significantly impact population health and safety outcomes. At the workplace, unsafe behaviors have been shown to reduce productivity and increase absenteeism. One of the major rationales for conducting Organizational Health and Safety (OHS) interventions at the workplace is the potential to reach a high percentage of employees, including many who would otherwise be unlikely to engage in preventive safety behaviors. While it is clear that OHS interventions are a much needed practice to deal with safety risks, there is yet a gap in the literature regarding the employees' perceptions about OHS interventions and factors that impact their perseverance in them, since many employees drop from interventions in their early stages. The current paper addresses this gap and is comprised of two studies that focus on the following questions:

- How do employees perceive a workplace road safety intervention they completed?
- What correlates with the perseverance of employees in the road safety intervention?

**Study One** explores the employees' views on a road safety organizational intervention, and the factors affecting these views. The study was done by capturing and analyzing the experience and perceptions of employees who participated in an OHS intervention designed to reduce texting while driving. 45 subjects from 6 different organizations completed a 4 month non-texting while driving OHS intervention, and agreed to be interviewed individually by phone about their experience. Employees' experience and perceptions of the intervention and its impact on their behavior were measured by two methods:

- 1) Qualitative: phone interviews with the participants at the end of the study
- 2) Quantitative:
  - a) Surveys with existing scales
  - b) A texting silencing and monitoring application

Qualitative themes that derived from the interviews included the impact of the study's intervention (the behavioral change incurred, mindfulness enhancement, the impact on others), the influence of the organization on the intervention (such as whether the organization is an effective intervention channel), and the perceived source of change in behavior – internal or external.

Mixed method analysis showed that employees that had a higher perception of organizational safety climate (quantitative parameter) saw the organization as a reliable source of promoting a safety program (qualitative parameter) and were also less likely to perceive that they were expected to be available at all times (qualitative parameter we termed "connectivity"). The analysis also showed a relationship between quantitative safety motivation

measures and an internal locus of control (qualitative), to accomplishing the desired behavior change (quantitatively measured by reduction of texting while driving following the intervention).

Because the effectiveness of an OHS intervention is dependent on the perseverance of its participants, **Study Two** focused on what influences the *perseverance* of employees – by utilizing the same OHS intervention used in study one as an example.

Employee perseverance in an organizational health and safety intervention has been confirmed to be associated with better outcomes for the employee and the organization. However, the various factors that contribute to perseverance in road safety interventions have not been comprehensively explored in the literature. This study addresses this gap by studying the influence of personal (motivation & gender) and situational (climate) parameters on the perseverance of employees in an occupational intervention designed to reduce texting while driving.

257 employees from 8 different organizations participated in a 4 month intervention. Participants installed a validated research-oriented smartphone application which continuously monitors smartphone usage while driving by capturing the actual number of times drivers are 'touching' the screen (i.e. texting). The study design was comprised of three stages: baseline (1 month) measuring screen touches while driving, followed by an intervention period (2 months) in which in addition to measuring screen touches, the application silenced all incoming written communications, and lastly a third period (1 month) in which screen touches were measured. Texting frequency while driving at the 3<sup>rd</sup> period was compared to the baseline period to assess the

impact of the intervention. A survey with existing scales was completed at the start of the study.

Intervention effectiveness was confirmed by subjective and objective measurements showing that employees that completed the intervention reduced the number of smartphone clicks (texting) while driving following the intervention. Most of the study hypotheses were supported. Organizational safety climate and gender (male) were confirmed as parameters that were positively related to participant perseverance in the intervention, while safety motivation was not found to be related to perseverance.

In sum, these studies contribute to the field of OHS interventions in three ways: First, by adding to the knowledge of how employees experience workplace OHS interventions. Second, they contribute to the understanding of what promotes the perseverance of employees in an organizational safety intervention. Lastly, the successful outcome of the intervention supports the utilization of accessible cost-effective information and communication technology (ICT) to develop, implement and assess an OHS intervention focused on road safety.