

Smartphone use in the Workplace and Personal use on Perceived Stress

The Relationship between Smartphone use in the Workplace and Personal use on Perceived Stress

Poster Presented at the American Psychological Association Work, Stress and Health 2013 Conference

Los Angeles, CA

Richard Balding

University of Worcester

Kenneth Nowack

Envisia Learning, Inc.

Correspondence should be addressed to Kenneth Nowack, Envisia Learning, Santa Monica, CA 90405. E-mail: ken@envisialearning.com

Abstract

This study investigated the relationship between the amount of times an individual used their smart phone for work and personal use each day, how many times they checked their phone each day and stress. 101 Participants were targeted from various organisations using an opportunity sample. 34 were male and 67 were female with a mean age of 25 years old, the mean average time they had owned a smart phone was 21 months. A questionnaire was devised to measure information on participant's smart phone use and stress, hardiness, Type A behavior and well-being were measured using the validated assessment called StressScan. A significant correlation was found between number of times the smart phone was used for home, the overall times used, the number of times the phone was checked each day and stress. Individuals who reported high scores on hardiness and Type A behavior reported greater use of Smartphones at home and those reporting greater stress, Type A behavior and less cognitive hardiness were more likely to check text messages away from work. It was concluded that a cycle may exist whereby individuals under stress begin to use their smart phone more to cope with the stress but in doing so experience further stress caused by the smart phone.

This approach means that employees can use a level of autonomy so that they can accomplish work tasks in a way that suits them better. This should also reduce the pressure of needing to do certain things at certain times. Devices such as smart phones can allow the individual to have a greater control of their autonomy with easy access to work schedules and email. Job Autonomy is positively associated with important job attitudes, organizational behaviors and health, (Chung-Yan, 2010). One way in which employers can make work more flexible is by allowing workers to decide when and where and the duration a work job is preformed, (Butler et al., 2009).

## Methods

Participants (N=101) were recruited online from an advertisement sent to various organizations in diverse industries in the UK to participate in a Smartphone survey. A total of 34 males and 67 females with a mean age of 25 years old were volunteered to be interviewed by the first author and complete an online stress/resilience measure (*StressScan; Nowack, 2008; 1990*). StressScan measures 14 psychosocial risk factors associated with diverse physical health and psychological outcomes and have shown existing reliability and validity in prior studies (e.g., Nowack, 2012). The StressScan scales include perceived stress, social support, coping style, Type A behavior, cognitive hardiness, and psychological well-being.

The mean average time they had owned a smart phone was 21 months. A questionnaire survey design was adopted in this study.

## Results

### Qualitative Analysis

Participants responses to the question, “Does using your phone for home/personal or work use easier or harder and if so, how?” were analyzed using thematic transcriptional analysis. The thematic analysis of the qualitative question was asked to the participants to gather a richer and more in-depth view of how a smart phone affects their life highlighted three main themes. These were that individuals found that using a smart phone made their life easier, harder and a combination of the two. By far the most common theme was that participants believed using a

smart phone made their lives easier 77%. Additional regression analyses revealed the following significant results:

#### Use at Home

Linear regression analysis revealed that cognitive hardiness and Type A behavior significantly predicted scores on reported use of Smartphones at home,  $R^2$  change=.16,  $F(1,98)=17.97$ ,  $p < .001$  and  $R^2$  Change=.07,  $F(1,97)=8.05$ ,  $p < .001$ , respectively.

#### Checking Text Messages

Linear regression analysis revealed that stress, cognitive hardiness and Type A behavior significantly predicted scores on reported use of Smartphones at home,  $R^2$  change=.19,  $F(1,98)=22.62$ ,  $p < .001$ ,  $R^2$  Change=.04,  $F(1,97)$ ,  $p < .05$ , and  $R^2$  Change=.07,  $F(1,96)=6.06$ ,  $p < .02$ , respectively.

### Discussion

The findings of the study suggest that those people that use smart phones more have higher stress scores although causality cannot be determined. In terms of work family conflict this can reflect several things. Theoretically with regard to work family interaction the main reason that using a smart phone lead to higher stress is in terms of an individual balancing the two areas of their life, (Moore, 2009). A smart phone could either have a negative effect in that it brings work life into the home impacting an individual's home life or alternatively they can have a positive effect in that they help an individual to balance the two areas of their life.

Respite from work has been highlighted as an important factor in reducing stress caused by the workplace, (Kühnel, 2009). It was argued for this reason that a device like a smart phone would cause stress through reducing the amount of time an individual could have respite from work due to a constant link to the workplace, mainly from receiving work related emails via the smart phone.

The limitations of this study include a convenience sample, cross-sectional design, and self-

reported outcomes. Future research using both subjective and objective health and organizational performance outcomes would help to identify causal pathways between the use of Smartphones both at work and home. Future research should compare individuals in the same occupation job and provide one group with smart phone devices and examine how the device has an effect upon their stress levels and wellbeing in comparison with the control group over a period of time.

### Conclusions

A significant relationship was found between number of times the Smartphone was used for home, the overall times used, the number of times the phone was checked each day and higher levels of self- reported stress, Type A behavior and lower levels of cognitive hardiness. The results of this study suggest that a cycle may exist whereby individuals under stress begin to use their smart phone more to cope with the stress but in doing so experience further stress caused by the smart phone.