Hawthorne Effect - by: Diane Wind Wardell, PhD, RN, WHNP-BC & Diana Guthrie, PhD, ARNP, BC-ADM, CDE, FAAN, FAADE

The Hawthorne Effect is a placebo type effect that involves a change in the dependent variable resulting from subjects' awareness that they are participants under study (Polit & Beck, 2012, p. 729). Henry Landsberger identified this effect in research in 1955 by analyzing data from experiments carried out in Hawthorne, Chicago between 1924 and 1932, by Elton Mayo at the Western Electric Corporation (Shuttleworth, 2009). It is the process where human subjects in an experiment change their behavior, simply because they are being studied. This is one of the hardest internal biases to eliminate or factor into a design. The fact that the workers in these studies were singled out or observed was enough to change the results of the studies. Consequently, what has developed is an attempt to control for this innate human response to attention (Hawthorne effect and placebo effects) that modifies results. Instead, researchers attempt to design studies in which the variables that are being manipulated are not influenced by this attention. In order to do so in modern day science it is believed that the participant needs to be "blinded" to their group assignment (intervention or control) so that this cannot influence the outcomes that are being evaluated. Additionally, the control group cannot simply be "no treatment" but one that has a similar level of attention provided. For example, if designing a meditation study one would have 10 minutes of meditation daily via tape and the control group would get equal attention by listening to 10 minutes of self-help information.

Not only does the "fact" of being observed or being a participant in a study influence the response of participants but their expectations about the effectiveness, (or non), personal experiences, and beliefs about if they are in the control or active treatment group can also influence the outcome. Luana and Miller (2011) recently wrote about these issues in relation to medication and behavioral studies and offered that it can be a complex function between participant, intervention, and presenting condition. They provide an interesting review of these factors and suggest that this information is an element of clinical practice.

References