TABLE 3-2 (CONTINUED)

CONTROL OF EXTRANEOUS VARIABLES	
POSSIBLE CONFOUNDING EXTRANEOUS VARIABLES	**METHODS TO CONTROL EXTRANEOUS VARIABLES**
Experimental bias	Ensure that all individuals collecting data have been trained on the protocol and that inter-rater reliability is high.
Data collection methods	Do a pilot study to examine the reliability and validity of the procedure, or use tests and procedures that have established high validity and reliability.

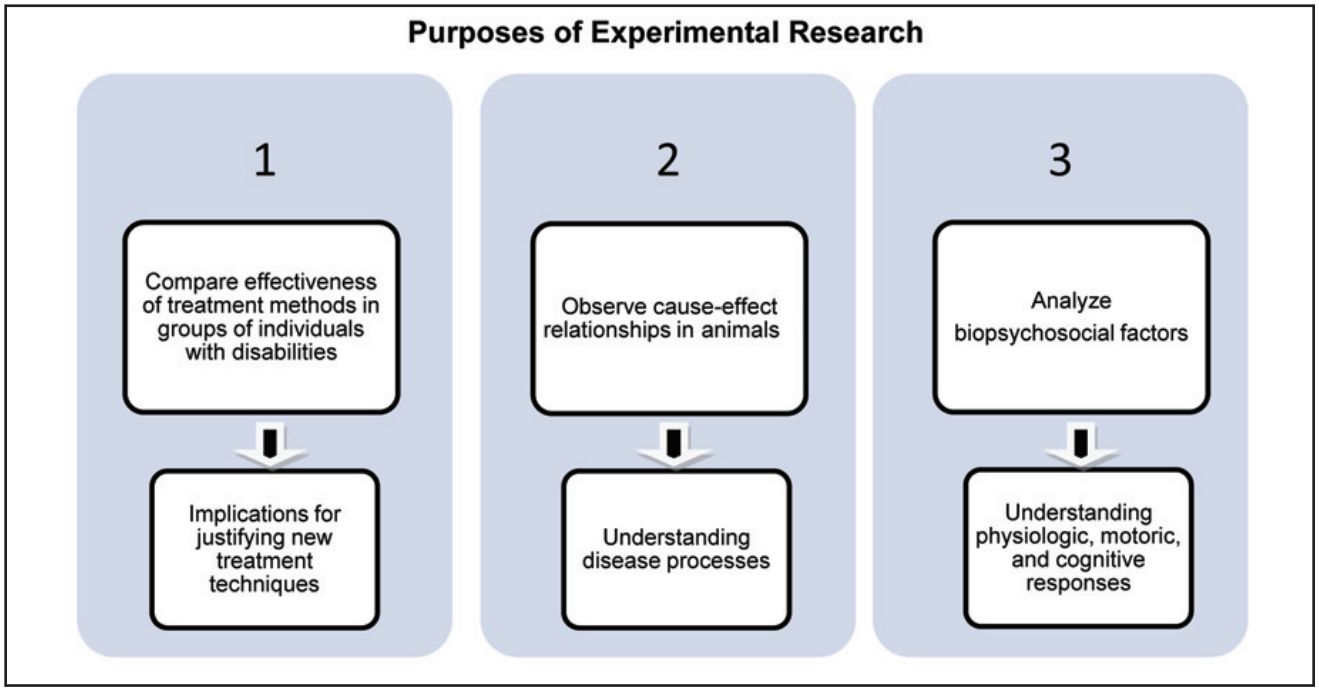

Figure 3-1. Purposes of experimental research. Note that there are three purposes for research, all of which lead to implications for intervention.

3.2.2 Comparison of Intervention Methods

Is intervention method A more effective than intervention method B? This question is a clinical problem affecting every individual treated by an occupational therapist in a hospital, home, or school setting. Nonetheless, the application of published clinical research remains limited. Many occupational therapists continue to use traditional methods of intervention without searching the literature to determine whether their effectiveness has been established through research. The classical research design employed in testing the relative effectiveness of clinical intervention methods is the paradigm (Figure 3-2).

In this example, the experimental intervention represents the independent or manipulated variable, whereas the degree of improvement represents the dependent variable. A cause-effect relationship is inferred directly by the experimenter.

Traditionally, the control group has been a nonintervention group or a comparative intervention group. In a nonintervention group, there is a possibility of a Hawthorne effect in which each group does not get equal attention, and the results may be attributable to the attention of the experimental group rather than to the intervention effect. In their classical work on experimental design, Campbell and Stanley (1963) used the term *quasiexperimental* to indicate experimental designs in which there is no comparative control group. For example, in a pilot study, a researcher may want to examine the effects of a stress management program on the reduction of depression by using an experimental group without a control group (Nowak, Preson, & Horoszewski, 2015). This would be considered a quasiexperimental design.