

Unobtrusive Measures

In this issue, Tat and colleagues (2017) conducted a study about cancer education services in a community-based health promotion program using unobtrusive measures. As explained, unobtrusive measures are based on observing rather than gathering information directly from participants. Although unobtrusive measures are used in nursing research (e.g., retrospective chart reviews), the term is not discussed often. In this column, I will describe unobtrusive measures, and review their advantages and disadvantages.

What Are Unobtrusive Measures?

Unobtrusive measures or indirect measures first were described by Webb, Campbell, Schwartz, and Sechrest (1966, 2000) as methods of data collection which do not involve direct gathering of data from research subjects, such as with interviews and questionnaires. Data are collected from the natural context or environment as life unfolds, rather than by asking people questions (Marques, Voas, & Tippetts, 2003). This could be done by examining textbooks, obituaries, advertisements for nurses in a newspaper, or as in the study by Tat and co-authors (2017), the number of brochures taken or rejected by women who were approached by the group as part of their educational outreach program.

Unobtrusive measures include archival data from records and documents related to activities of people, institutions, and other groups. Researchers also have been mining digital media and online communication as data sources (Berg & Lune, 2012). Another type of data is represented by physical traces, such as remnants, fragments, and products of past behaviors. Examples are garbage, graffiti, and even the wear on some surfaces. This type of data collection can be used solely in a study or in conjunction with other types of data collection to provide triangulation or a fuller picture of the phenomenon being studied (Shaughnessy, Zechmeister, & Zechmeister, 2015). For example, Shugg and Liamputtong (2002) examined the patterns of coverage of women's health in newspapers. Marques and coauthors (2003) examined the patterns of alcohol ignition interlock breath tests. Another example in medical-surgical nursing was a study by Olrich, Kalman, and Nigolian (2012), who used the rate of call light usage to examine the effectiveness of an hourly rounding program.

Advantages

Unobtrusive measures are generally nonreactive, as the observations are made without subjects knowing they are being observed for data collection. People can change their behavior when they know they are being observed or when asked questions (Berg & Lune, 2012). Unobtrusive measures can be a valuable means to reduce this opportunity for bias. In addition, as in the study by Tat and colleagues (2017), it does not interfere with the conduct of the education outreach program.

Researchers first must determine if the measure is a valid indicator of behavior or attitudes (Shaughnessy et al., 2015). Often a justification will need to be provided for use of a particular measure. In addition, selected data, such as fall rates and infection rates, are collected by agencies for quality improvement purposes but also could be available for research, saving time and money. Unobtrusive measures are relatively easy to collect and more sustainable for an ongoing health promotion program.

Disadvantages

Any type of data, including unobtrusive measures, has the potential for bias. *Selective deposit* is a bias that occurs because of the way physical traces are deposited and the way archival sources are produced, edited, or altered as they are established. In other words, in some situations, only selective things are left behind (Shaughnessy et al., 2015). For example, not all information is charted as it should be in health records and often data are missing. Shaughnessy and colleagues also described *selective survival*, a second type of bias that occurs from the way physical traces and archives survive over time. With some types of sources, only partial data may be available. For example, paper records can be lost due to fire or water damage. Even electronic records can be damaged.

Although many potential measures can be used, less control of the type of data is possible. Thus, a researcher is limited to the information available and cannot ask for other details. Reliability of the measure and sampling bias (only sampling certain documents) should be addressed by the researcher. Ethical considerations also need to be considered. By the nature of the data, the researcher is collecting information without people's knowledge. A researcher could be violating others' right to privacy and obviously not using informed consent. Some information may be public and therefore not an invasion of privacy, but the ethics of a particular study should be reviewed carefully (Berg & Lune, 2012).

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