Quantitative Research Critique

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**Introduction**

Current estimates indicate that nearly 50 percent of persons suffering from diabetes do not attain and sustain the required target of less than 7 percent for glycated hemoglobin and a mere 14.3 percent are at the target requirements for glycated hemoglobin, low density lipoprotein cholesterol, non-smoking as well as blood pressure. The American Diabetes Association, through its 2015 standards for patient care, recognize the impact of diabetes self-management education as a significant aspect of care for individuals with diabetes. However, recent studies indicate that among new cases of diabetes, 7 percent of persons with private insurance and less than 5 percent of individuals covered by Medicare participate diabetes self-management education (Chrvala, Sherr & Lipman, 2016). It is for this reason that Tang et al. (2014) conducted a study on the impacts of peer leaders as well as community health workers in diabetes self-management support. This paper is a critique of the aforementioned research by Tang et al. (2014) in an article titled “***Comparative effectiveness of peer leaders and community health workers in diabetes self-management support: results of a randomized controlled trial”*.**

**Article Summary**

The purpose of this study was to compare peer leader versus community health worker telephone outreach program in sustaining improvements in glycemic control over 1 year after a half a year diabetes self-management education program. The sample was random, including 116 adults suffering from DM type 2 who were recruited via a federally qualified health center. The research participants were randomized to a 6 month diabetes self-management education program followed by a 1 year of weekly group sessions administered by peer leaders with telephone outreach to research participants unable to attend the program. Also, the randomized study of 6 month diabetes self-management education program followed by 1 year of monthly outreach via telephone administered by community health workers. The main outcome was glycemic control with the secondary outcomes being the cardiovascular disease risk factors, diabetes social support as well as diabetes distress. Assessments were performed at three different baselines- 6, 12 as well as 18 months (Tang et al., 2014).

The researchers found that, after diabetes self-management support, the group that passed through the peer leadership program maintained glycemic control improvements for up to 18 months after the education program. Only the peer leader group maintained the improvements realized in blood pressure for 18 months. The community health workers’ group, on the other hand, showed a reduction in glycemic control for up to 6 months after the diabetes self-management education program. A follow up, 18 months later, showed that the peer leader group and the community health workers group maintained improvements with no significance difference in three areas-waist circumference, diabetes distress as well as diabetes support. In conclusion, the researchers asserted that low cost maintenance programs-whether peer leader program or community health worker program-maintained improvement in major patient reported diabetes outcomes. Nonetheless, peer leader intervention has additional advantage in sustaining clinical improvement for more than 12 months (Tang et al., 2014).

**The Relevance of the Study’s Findings in Nursing Practice**

The study’s findings are important for nursing practice since diabetes self-management education has, for many years, been accepted as an essential aspect of care for persons living with diabetes and those at risk for developing diabetes. The Centers for Disease Control and Prevention, in its 2014 data, show that the incidence and prevalence rates for diabetes are high among minority communities. This is attributed to the health care access disparities, which is common among ethnic and minority groups (CDC, 2014). Adoption of community health worker initiative model to reduce health care access disparities to diabetes education is a vital as well as practical approach, with sufficient evidence supporting its efficacy. The National Standards for DM Self-Management Support and Education, fifth standard, acknowledges that case managers, health educators, community health workers as well as peer counselors in diabetes self-management education. In particular, they can contribute effectively as components of DM self-management education team as well as in providing patients with diabetes self-management support. People who serve as community health workers as well as peer counselors can help in providing diabetes education and self-management instructions as well as DM sand support if they acquire enough training in group facilitation, diabetes management, emotional support and self-management skills (AADE, 2015).

From the diabetes perspective, peers are defined as persons suffering from diabetes or individuals affected by diabetes like close family members. Peer support can empower affected individuals to connect with others with similar experiences, which can lead to patient satisfaction as well as motivation. Peer support, from the healthcare point of view is, “*the provision of emotional, appraisal and informational assistance by a created social network member who possesses experiential knowledge of specific behavior or stressor and similar characteristics as the target population”* (Werfalli et al., 2015, p. 2). The researchers indicate that emotional support is the expression of caring, encouragement, reassurance as well as empathy and it enhances self-esteem. Informational support is the provision of advice, alternative actions, suggestions as well as feedback regarding the issue that a peer is encountering. Appraisal support, on the other hand, includes encouraging optimism as well as persistence for problem resolution. It also relates to affirmation the peer’s feelings and reassurance that he or she can deal with his or her frustrations. Researchers have the responsibility of protecting participants in investigations.

**Ethical Considerations**

Ethics is a basic foundation for conducting effective as well as meaningful research and, therefore, ethical behavior and conduct of researchers is under scrutiny. All researchers, including psychologists, anthropologists and educators, have four major duties to participants. These include informed consent, privacy and deception as well as protection from harm. With regards to informed consent, a researcher must ensure that research participants have an understanding of the purpose as well as the methods of the study. Also, it is important to risks involved as well as the demands placed on them as participants. The participants must also understand that they have the right to withdraw from a study at any particular time. From a legal perspective, informed consent revolves around three basic aspects: capacity, voluntariness as well as information. These three elements must be present for an effective informed consent (Punch, 2013).

Researchers must take appropriate and reasonable steps to avoid harm to participants and others with whom they operate or work. The basic concern is ensuring that no one is harmed by acting as a participant. Harm includes physical pain and death as well as other factors like psychological stress, humiliation, myriad influences and personal embarrassment that adversely affect participants in significant ways. A research must be planned as well as executed in a way that minimizes harm to research participants. Studies are more ethically justifiable if the probabilities of risks are minimized. Also, researchers must consider the long term effects of the study on participants and other users (Punch, 2013).

The other ethical consideration is attached to participants’ privacy; privacy is a highly treasured right in Western society. The final of deception involves intentional misrepresentation of key facts regarding the purpose, nature and consequences of a study. Researchers collect and analyze data regarding people, either as individuals or groups and this is a source of conflict between a researcher’s goals and the privacy rights. It refers to the omission and commission of information when interacting with participants. Therefore, deception has become concern for researchers (Punch, 2013).

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