



THE IMPORTANCE OF PHILOSOPHICAL THINKING IN NURSING SCIENCE DISCUSSION PAPER/ PHILOSOPHICAL PAPER

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ABSTRACT	Keywords
<p>In nursing field, point of view a nurse's action on a patient, family, or community is as meaning of philosophy. Nevertheless, how does philosophy of science relate to nursing?, it is also a question that many people still doubt. This short essay aims to express my understanding about the importance philosophy of science and nursing science. Regarding to nursing field, why nursing have to concern itself with science is an important question. As we know, nurse's role is to take care a patient and science is a way to build the knowledge. Philosophy of science and nursing science are so important, especially for nurses. It helps nurses to find out the reality of the truth and raise awareness of not only the uses scientific method to build the knowledge, but also applying the art in order to better taking care patient. Moreover, having deep understanding of philosophy, science, and nursing science is essential condition to become a nurse scientist to improve the best care practice.</p>	<p><i>nursing, philosophy</i></p>

Background

What the philosophy is has raised to talk frequently in Ph.D. Nursing students because it is a complex and difficult to understand. The original meaning of the

word philosophy derives from with the Geek roots of philo- and -sophos which are translated as the love of wisdom. Therefore, philosophy of science is considered as a thinking activity) Blackburn, 1996(or a

method people seek a truth about phenomenal world as a perspective of people to view the world. In nursing field, point of view a nurse's action on a patient, family, or community is as meaning of philosophy. Nevertheless, how does philosophy of science relate to nursing?, it is also a question that many people still doubt. This short essay aims to express my understanding about philosophy of science and nursing science.

To present my knowledge about philosophy, science, and nursing science, some questions discussed in this essay can express my understanding. Do humans have a nature inclination to do science? is the first question. Firstly, to answer this question, what science is and what it is not are important questions that we have to understand first. Scientia, the word science in Latin language, means knowledge (Polifroni, 2014). Science was defined as both method and outcome from originating knowledge (Wood & Catanzaro, 1988). Moreover, Okasha (2002) defined word science as a way for human attempting to understand, describe, and predict phenomena in the world. Similarly, according to Aristotle said, nature of all men desires to know and to learn when we doubt, and then science is only one way to solve and clarify the doubt (Aristotle, 1941: 689; Cited in Lewes, 1864). Obviously, when human would like to seek explanations the world and control

the phenomena, science can help human accomplish this goal. Forasmuch, scientific results may be more reliable. Science use observation and experimentation to describe and explain natural phenomena. As same as, Galileo's discovery of the law of free fall, he observed many times about why a falling of those things in the same rate did not same way. Otherwise, the law of gravity founded by Newton when he saw apple fall in the ground, he had some question all the time "why it not grow up?" (Russell, 1979). Therefore, science is as a contributing system of a knowledge development. There is no doubt that science can make human to more understand a phenomenon, make life easier, and have better quality of life. In my opinion, I believe that humans have a nature inclination to do science because humans can receive great benefits from the uses of science.

Despite having much credible evidences of benefits in using science, there is still continually debated issue related to science. Some people like a scientific realism believe that true explanations of all phenomena in the world are presented by using science. Conversely, other people assert that some descriptions of things presented by science are not at all true because of mistakes in the consideration scientific theories (Okasha, 2002) as well as science is neither truth nor certainty things since nobody can make surely confirm the

truth of things or may not be able to prove all claims that are true or not)Ziman, 2011(. One question purposed to make people clear about science is what science's central question is. Personally, I think this question is talking about what the aims of science are and how to qualify what is a science. Aims of science are to understand, explain, and predict the world we live in as well as it is a human effort to find conclusions about natural world by demonstrating and repeating again and again. Moreover, Wood and Catzanzaro stated that the goal of science is to obtain theory or practice)Wood & Catzanzaro, 1988(. According to Van Fraassen)1980(mentioned, science has a purpose to give scientific theory to explain about the world as what the world is. As a result, in my view, the actual aim of science is to discover the reality related to the nature of the world.

However, several people do not believe that the best way of building knowledge is using science as same as the question is how did science evolve as a way of building knowledge? To answer this question, science is the way to reach human's understanding the history of the natural world and how the natural world works. Science, furthermore, is both process and product. The scientific process is a method to construct the knowledge through observation of phenomena and/or through experimentation that attempts to demonstrate natural processes under

controlled conditions. Science, moreover, becomes knowledge by publication of results. When we as scientist want to explain something of which we do not know, or explore the world, we have a question in our heads every time. The questions or hypotheses are as guideline to help us find the answer. After scientist tries to test the hypotheses, knowledge can be generated. Therefore, the several knowledge gained from scientific method are used in creating the body of knowledge. On the other hand, results from science as the knowledge or theory can change overtime which depends on new information or changing existing data. It is possible that one thing is real today may be false in the future. Actually, in my opinion, the main task of science is seeking new information to construct the knowledge or theory and it is a method how science structures the knowledge as a process including: 1(ask questions, 2(observation and experiment, 3(set hypothesis, 4(test hypothesis, and lastly 5(build new knowledge, respectively.

Philosophy of science in Nursing

Regarding to nursing field, why nursing have to concern itself with science is an important question. As we know, nurse's role is to take care a patient and science is a way to build the knowledge. Consequently, science helps nurse build nursing knowledge and theory as well as Carper)1978(stated

that empirics or nursing science is one of four fundamental patterns of knowing in nursing. Obviously, the science of nursing is clear. Nursing science, a knowledge derived from systematic study designed to build the body of knowledge or theory, is used as a nursing practice guide. Furthermore, it integrates and synthesizes the basic knowledge from biological, physical, and other related sciences to attempt to understand human health, human experience of health, human responses to illness, and clinical therapeutics) Meleis, 2007(. For instance, when taking care of pregnant women, nurse or midwife must know the normal physical changes throughout pregnancy, development of fetus, medications, and health care all sides in order to best care practice for patient. It can be interpreted that nursing is a science as well as nursing science is a crucial basic practice to taking care of a patient.

In addition, nurses also require to have knowledge of both science and art because dealing with patient cannot only take care of their physical problem but also their minds as same as a holistic care. Each human being has own behavioral and emotional patterns that are different in each person and difficult to predict or measure it) Mitchell & Cody, 1999(. Accordingly, nursing need to have a combination between empirics and aesthetics to provide the best nursing care to patients. The art of nursing, nursing aesthetics, is also one pattern of

fundamental nursing knowledge) Carper, 1978(. It is a making visible through the nurse's action to provide whatever patients need for recovering and increasing their abilities in order to handle the illness) Wiedenbach, 1964(as same as it is based on the skill of the nurse in a given situation. From Orem)1971, pp.155(, art of nursing is an only expression of individual nurse in creating the style or designing the pattern care in order to providing effective and satisfying nursing care. So, art of nursing seems nurses' attitude and belief on their perception about patient and uses the nurse intuition and empathy. For example, while patient feels pain, nurse gives some medicines for releasing pain from physical discomfort and expresses empathy by gently touch. Design of the nursing care, as a result, should be accompanied by the sense of balance, rhythm, proportion, and unity of process associated with the dynamic integration and articulation of the whole) Carper, 1978(.

The importance of philosophical thinking in nursing science

From previous mentioned, the main products of science are knowledge and theory as well as one of the aims of science is a theoretical construction. When scientists want to understand, describe, and control the natural phenomena, they look for the method to get the answers. Scientists use observation and experiment to collect data

and they bring gathered the data to analyze to get the results. Moreover, they explain those results from scientific process in term of general theory)Okasha, 2002(. We can see this example in Charles Darwin's discovery of the theory of evolution by natural selection, published in 1859. This theory is based on Darwin's belief about the different species separated by physical characteristics, inherited by their offspring. Several scientist tried to find answers to confirm this theory by scientific method and some scientist, Watson and Click, discovered the answers complying with this theory in 1953. Moreover, this theory has been still used up until now as a ground theory. On the contrary, achieving a goal or to get further scientific knowledge, theory is uses as a foundation as well as theory enables scientists to be able to understand and predict outcomes of their topics of interest. Obviously, theory and science are extremely relevant.

Although the theory is constructed by science, testing theory is still necessary. Scientist have to test the theory in order to investigate its truth for obtaining scientific knowledge from the theory. There are several methods of theory's test. However, foundation of testing theory have four steps as following: test hypothesis, initial condition, auxiliary hypotheses, and observational prediction. If the consequence is true, that is to confirm the hypothesis. Conversely, if the consequence is false, that

disconfirms the hypothesis (Earman & Salmon, 1999). Another methods, Butts)2014(stated that one process for testing theory is conceptual-theoretical-empirical, or C-T-E structure. The C-T-B structure is composed of three components including a conceptual model, a theory, and empirical indicators)Butts, 2014(. This way uses deduction method based on general concepts. The process of theory testing will give some evidences as perspective results that support, revise, or reject existing theory. Therefore, that's why we need to test theory to bring empirical validity of a theory.

Lastly, I would like to discuss how we judge the truth of claims. Argument is a formal tool for approaching the truth of claims as a scientific reasoning. It is an activity to present premise, reason, or evidence to support the claim or conclusion)Bandman, 1995(. Scientific reasoning process is composed of premise and conclusion. Moreover, it is of two types including deduction and induction. A deductive reasoning is referred to the best way to meet a conclusion. If all premises are true, the conclusion is absolutely true. On the other hand, in inductive reasoning, the premises give some empirical evidences to support the conclusion; whereas, these are not conclusive evidence for the truth of the conclusion)Bandman, 1995(. It indicates that deductive argument is more appropriate to use than inductive argument. Because, knowledge and theory will be true in other

place and time and some premise do not use in overtime. So, the conclusion in inductive reasoning may be false) Okasha, 2002(. However, inductive reasoning is suitable for making more general claims from limited data. Therefore, that is why some scientists have to use both deductive reasoning and inductive reasoning to get the conclusion or access to the true of claims. For good example, according to Newton's law of universal gravitation, Newton used both deduction and induction methods for consideration the truth of claims.

In conclusion, philosophy of science and nursing science are so important, especially for nurses. It helps nurses to find out the reality of the truth and raise awareness of not only the uses scientific method to build the knowledge, but also applying the art in order to better taking care patient. Moreover, having deep understanding of philosophy, science, and nursing science is essential condition to become a nurse scientist to improve the best care practice.

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