

# Determinants and Outcomes of Knowledge Transfer within Clinical Placement

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**Abstract.** Previous studies have shown how clinical placement enhances clinical competence. Learning within clinical placement primarily evolves when knowledge are acquired through the transfer of knowledge from Clinical Instructor (CI) to Nurse Student (NS). As such, this study conceives that knowledge transfer (KT) is important for learning daily nursing routine at clinical site and have an impact on clinical competence that warrants for further examination. Using nurse students attending clinical placement at hospital setting as sample, this study will highlight KT, in relation to knowledge acquisition. The objective of the study is to investigate the determinant under which NS is influenced to acquire knowledge from CI within clinical placement. This paper explores the key factors that have been cited as significant influences on KT primarily done in non-nursing to nursing clinical placement context from NS perspective. A quantitative study will be undertaken to study whether knowledge factor, individual factor and situational factor influence knowledge acquisition of NS from CI. In addition, this study will be taken further by investigating the outcome of knowledge acquired by NS by employing a pretest-posttest research design of which data will be collected at the mid term of clinical placement period and during the last week of clinical placement.

**Keywords:** Clinical Placement, Clinical Instructor, Knowledge Acquisition, Nurse Student.

## 1. Introduction

As it is in other practical professions, transfer has many major implications for nursing practice. In general, transfer is the main goal of education. Transfer in nursing program account for both theory–practice transfer and practice–practice transfer. Knowledge within clinical placement comes from various sources. For such practice, knowledge can be acquired through the transfer between and among others: Clinical Instructor (CI), Ward Staff (WS), Nurse Student (NS), other Healthcare Provider (HP) and Ward Patient (WP). However since CI at all times serve as main source of knowledge during clinical placement, the study shall focus on knowledge transfer (KT) from CI to NS only. Commonly, expert and novice have been shown to have unlike knowledge and skill capability with novice is known for shortcoming of knowledge base that is rarely equipped with adequate knowledge for their clinical placement. The advantage that clinical placement put forward is the possession of CI specific clinical knowledge. Within clinical placement, CI serve as primary source of knowledge that is relevance and available for NS to learn the application of theories to nursing practice. Through KT NS can make use of CI diverse experiences, advice, insights, and ideas in learning essential clinical knowledge and move much faster on the learning curve and thus enhance his/her clinical competency. Yet, possession of potentially valuable knowledge of CI does not necessarily mean that NS benefit from that knowledge unless KT takes place.

According to [1], learning occurs when “knowledge is transferred effectively from one part to another for problems solving and creation of new insight”. Accordingly, for successful learning to take place within clinical placement, the practice demands for KT between CI and NS. This study subsumes learning under transfer, because learning in this study context is not possible without transfer of knowledge between CI and NS. However, despite widely available and accessible of CI’s critical knowledge, if NS do not acquire knowledge from CI then that knowledge is just a repository of information in CI’s private knowledge domain and remain in silo. As no knowledge acquisition take place, past mistakes or value of CI are not made known to NS and not being used to avoid the same mistake error or replicate the same success in the future. NS need to acquire knowledge in order to get hold of CI’s knowledge in strengthening what they know and

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in supporting what they do not know. According to [2], KT is a double-sided process, made up of providing and obtaining knowledge. Therefore the ability to contribute and obtain knowledge is an essential activity for both applicable educator and learner. Given that the issue of KT, in relation to knowledge acquisition is frequently overlooked, this study will address knowledge acquisition by NS from CI at clinical setting. This study suggests three possible determinants under which NS is influenced to acquire knowledge from CI within clinical placement; which are knowledge factor, individual factor and situational factor.

## **2. Learning within Clinical Placement**

NS need to produce good services and they can only do that with knowledge. They need “to have adequate knowledge and skills and to be able to transform competencies into effective performance” [3] in order to satisfy both “demands and complexity of the society that they serve” [4]. Therefore, knowledge must be acquired from others to support their practice. In nursing program such practice evolve within clinical placement, of which NS is provided with the real on the job experience at clinical site for “learning-by-doing” [5] and being supervised by experienced clinical practitioner. Typically, clinical placement is conducted in small groups of NS, where NS is required to undertake certain hours of learning, being facilitated by one preceptor and carry out at clinical setting, for instance hospital, healthcare centre and nursing home. It is expected that knowledge exchange between CI and NS during clinical placement will equip NS with the essential knowledge for their practice that make possible of “increased professional identity, a sense of security and confirmation, sharing thoughts and experiences, and moral responsibility” [6] that advances the quality of nursing practice”[7] towards “the development of professional skills” [8].

## **3. Detected Prerequisites of Knowledge Transfer within Clinical Placement**

As described above, the transfer of knowledge between CI as owners of the knowledge and NS at the recipient part is necessary for learning to take place. However, KT does not necessarily take place efficiently or effectively [9], [10]. KT is especially problematic for practice professions like nursing, whom is operating in an ever changing environment. This study explores the key factors of knowledge, individual and situation that have been cited as significant influences on KT primarily done in non-nursing, with investigation to nursing clinical placement context.

### **3.1. Knowledge Factor: Knowledge Tacitness and Articulability**

The type of knowledge to be transferred is among the key factors of KT [1]. Most studies in KM literature categorize knowledge into two specific types of knowledge; tacit knowledge and explicit knowledge [11], [12], and [13]. According to [14], the difficulty of KT depends on the tacitness of knowledge being transferred. The basic argument here is that, explicit knowledge is factual and codifiable [12]. Since explicit knowledge can be easily be digitalized, this knowledge can thus be transferred to others with relative ease [15]. Meanwhile, tacit knowledge is in people “personal, intuitive, insightful, context-sensitive, dynamically created and experienced-based, subjective and experiential” [16], [17]. Accordingly tacit knowledge is difficult to be transferred. In reality, the knowledge of “knowing how” focuses on acquiring the know-how and application of the knowledge and the “knowing what” focuses on acquiring facts and information [18]. Knowledge of “knowing how” of a clinical placement is often tacit and knowledge of knowing what is much explicit. This suggests that the degree of tacitness of knowledge to be transferred will affect NS’s acquisition of knowledge within clinical placement. Consistently, the study posits

- $H_1$ : The lower the tacitness of knowledge being transferred, the more knowledge is acquired by NS from CI.

KT is influenced by “the extent to which knowledge can be verbalized, written, drawn or otherwise articulated” [19]. Therefore, in relation to articulability, tacit knowledge is hard to be communicated and articulated, thus difficult to be disseminated to others [13], [20], and [21]. Explicit knowledge is easily communicated so can be “easily transferred to be available for enquirer” [22]. According to [23] “poorly articulated knowledge is difficult to teach and learn”. This suggests that articulable knowledge is more easily transferable than less articulable. Consistently, the study posits

- H<sub>2</sub>: The greater the articulability of knowledge being transferred, the more knowledge is acquired by NS from CI.

### **3.2. Individual Factor: Motivation to Learn and Capacity to Learn**

Even when learning is supported by CI, knowledge acquisition is necessary if NS want to learn critical knowledge from CI. [24] Found a positive relationship between motivation and knowledge transfer. [9], [10] identified that more KT takes place when knowledge recipients is motivated to accept knowledge. [25], [26] assert, “intrinsically motivated people are required when the knowledge being transferred is primarily tacit”. [10] Argues that recipient’s lack of motivation leads to poor transfer of knowledge. This suggests that the presence of a clear learning intent is in need to facilitate learning. Intent to learn in this study is defined as the predisposition to gain knowledge from the knowledge source for the purpose of learning. It is likely NS with conscious plan or intent to learn will acquire knowledge more from their CI than those who not because for NS acquisition of knowledge means learning.

- H<sub>3</sub>: The more motivated NS, the more knowledge is acquired by NS from CI.

For KT to take place, knowledge is not available and accessible, but “the recipient of that knowledge has to be able to use it” [10]. Recipient capacity to learn is primarily determined by the quality of its knowledge base or prior knowledge and absorptive capacity. According to [28] students with prior knowledge were “more eager to learn and take every possible opportunity to obtain experience”. In reality not all NS are equally adept to KT within clinical placement due to heterogeneous in the possession of prior knowledge. Some NS owns stock of clinical knowledge from previous clinical practice or exposure from their lifestyle, and some what not. It is likely that NS with rich knowledge base will possess more valuable knowledge available for transfer as compared to those without one that affects the ability to acquire knowledge from CI. Consistent with other study, prior knowledge is of importance because it will affect NS acquisition of knowledge.

- H<sub>4</sub>: The greater knowledge base possesses by NS, the more knowledge is acquired by NS from CI.

Capacity to learn is also affected by the recipient of the knowledge absorptive capacity. [29] defines absorptive capacity as “the ability to recognize the value of new information, assimilate it and apply it to commercial ends” [9]. [30] consider the absorptive capacity of the recipient to be the major influence on KT. Research of [10], [31] found that absorptive capacity is related to knowledge transfer. Such finding signals the necessity for the receiver of the knowledge to possess certain capacity for effective transfer of knowledge. It is likely that NS who lacked absorptive capacity might typically experienced difficulties in acquiring knowledge. But as when the recipient absorptive capacity is high, the recipient capable to get hold of the knowledge at ease that somehow influence NS knowledge acquisition motive. Consistent with prior study, this study argues that NS absorptive capacity is significant for NS knowledge acquisition from CI. This suggests that the absorptive capacity of NS will affect NS knowledge acquisition.

- H<sub>5</sub>: The greater the absorptive capacity of NS, the more knowledge is acquired by NS from CI.

### **3.3. Situational Factor: Transfer Priority, Time Allocation, Theory-Practice Gap**

The transfer priority is predicted to affect knowledge acquired by NS. As when the knowledge lacked importance in the eyes of the recipient, they will perceive the knowledge to be less influential and will discount that knowledge. Recipient is likely to acquire more knowledge deemed to be strategically important. This suggest that the functionality of knowledge being transferred is central because it affects how NS perceived the importance of the knowledge for their learning that somehow influence NS to acquire those knowledge from CI. Consistently, this study posits that

- H<sub>6</sub>: The greater NS perceived on the importance of the knowledge, the more knowledge is acquired by NS from CI.

Transfer of knowledge for practice professions like nursing in the context of clinical placement is further problematic due to the condition of the surrounding that are environmentally hectic, intense with long standing pressure. This study argues that time is also a factor affecting KT. Clinical placement demands NS to learn fast. Clinical placement requires CI to take time away from patient care for supervisory practice and simultaneously performing everyday work routine. As nurses are constantly busy with their duties [32],

accordingly, learning session with CI must go on at fast pace. Although clinical placement offers knowledge that is the relevant, accurate, and timely knowledge it in different circumstances, yet not every NS is capable to master the contributed knowledge at instance from CI while they go about their daily learning. Some might need private time and extra effort to get hold of massive amount of up-to-date nursing knowledge of patient care. Accordingly, NS with poor learning capacity would barely acquire knowledge from CI under time constraint. Therefore, though it is critical for NS to acquire knowledge from CI in order to equip themselves with the essential knowledge for learning, if allocation of learning time is limited, then knowledge acquisition is likely to occur.

- H<sub>7</sub>: The greater the allocation of learning time, the greater the knowledge acquired by NS from CI.

For learning purpose, KT within clinical placement is not optional. Without CI support, hardly any NS can learn clinical knowledge. Whilst the need for learning within clinical placement is clear, there is evidence that theory-practice gap can impair transfer. According to [33], transfer failures can occur “as tasks being transferred to situations and contexts which are not exactly similar to that already learned”. This study suggests that the same logic may apply for knowledge acquisition within clinical placement. While learning go aboard, NS will encounter many unexpected events that frequently occur in daily nursing work. Due to unpredictability of nursing practice context, some theoretical knowledge is difficult to be operationalized in reality and transferable to only a few situations. This suggest that the divergent between how CI teach within clinical placement and way in which NS are exposed during classroom lecture may has implications for knowledge acquired by NS.

- H<sub>8</sub>: The greater theory-practice gap faced by NS, the less knowledge is acquired by NS from CI.

### 3.4. Relationship: Knowledge Acquired and Clinical Competence

A fundamental principle of the knowledge-based view is that by possessing greater knowledge have greater potential to improved performance. The study applies the same logic that knowledge acquisition of NS will positively correlate to NS clinical competence.

- H<sub>9</sub>: The greater the knowledge acquired by a NS from its CI, the better his/her clinical competence.

## 4. Research Model

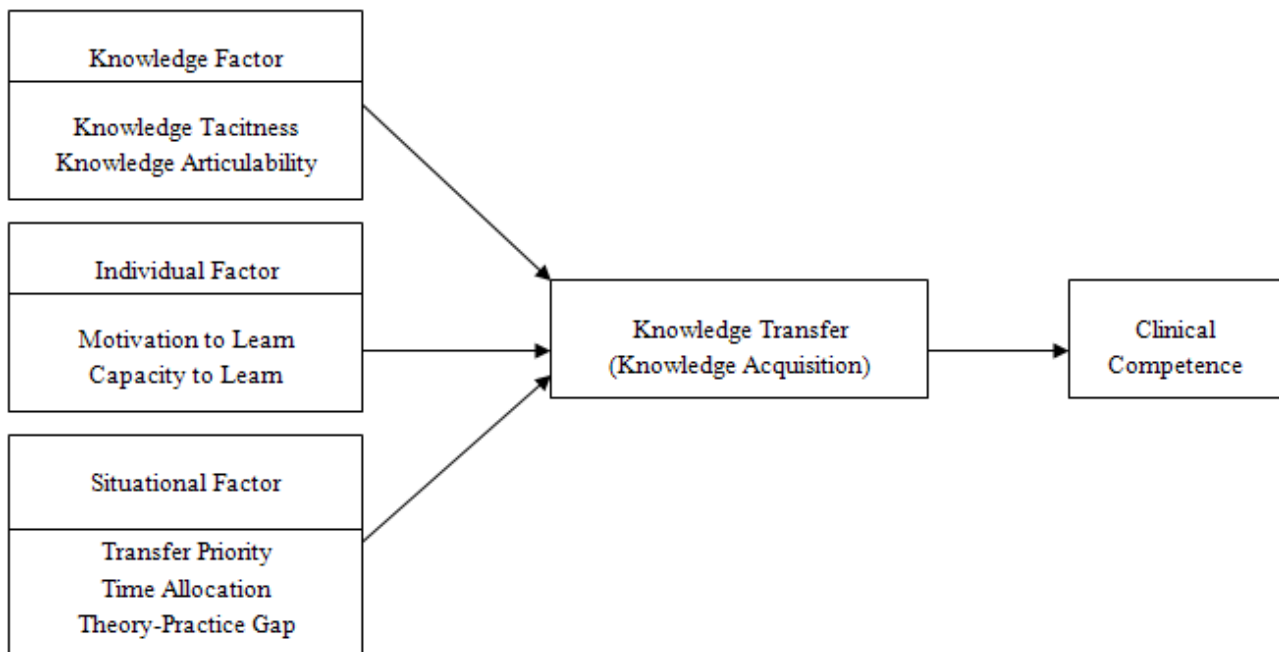


Fig. 1: An integrative framework of the determinants and outcome of knowledge transfer, in relation to knowledge acquisition within clinical placement

In this study knowledge transfers, in relation to knowledge acquisition is seen as a “transfer of tacit or explicit knowledge in interaction between individuals” [34].

## 5. Managerial and Research Implication

Plenty of research has been done on KT, but less attention has been given to clinical placement context. Effective KT within clinical placement is possible, with regards that the key factors that make it possible first need to be put in place. The finding of the study should be of particular interest to academic and nursing regulatory authorities for better understanding of what influence nurse student learning, in relation to knowledge transfer so that students are able to meet desired education objective. In this study, effective KT leads to successful learning and, as a result, improves the quality of clinical competence. Given that much literature exists about KT on knowledge contribution side, this study fills the gap by analysing knowledge acquisition into account. Further, the study adapts prior research primarily done in non-nursing contexts to the nursing context by incorporating new nursing clinical placement-related constructs as to make certain that the model are relevant to the clinical placement context.

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