

# Clinical Learning and Supervision for Allied Health Professionals in Singapore: current framework, facilitators, barriers and the way forward

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A thesis submitted in partial fulfilment of the requirements for the Degree of Masters of Science in Speech and Language Sciences in the Department of Communication Disorders

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2017

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## **ACKNOWLEDGEMENTS**

Firstly, I would like to thank all the participants who provided their honest and truthful responses and dedicated their time into the two rounds of the survey. I will always cherish such moments of my education and remember their contributions towards building my knowledge base towards clinical supervision. I would also like to thank my workplace for their understanding towards my work and study arrangements to make postgraduate studies a reality for me.

I would also like to thank my supervisors; Kate Cook, Gina Tillard and Dr Dean Sutherland for their expert support, advice and guidance throughout the entire postgraduate journey. I would not have completed all these monumental milestones in my education without their constant support, feedback and understanding. Their advice and constant checking in to make sure that I am well settled throughout the entire course of my education has provided me tremendous encouragement. Without their continuous reassurance across the seas and time zones, this journey will not be feasible. I am forever indebted to their kindness for accepting me as their long distance postgraduate student and their understanding towards my work and study schedule.

I must also thank my family – my parents and siblings for being my cheerleaders and constantly supporting me in all the decisions I make in life. To my friends who encouraged me to take on postgraduate studies, I can't thank you enough for supporting me in taking this huge leap of faith in life. To my husband, thank you for being there through these times and helping me in everything I need in this journey. With special mention to Lucinia, though you are no longer physically here with us, I dedicate this thesis to you for always being an angel and an inspiration in my life.

## **ABSTRACT**

**Background:** Clinical supervision for allied health professionals is vital to develop clinical skills within an acute hospital. With the ageing population that the country faces and the exponential increment in the number of younger professionals, clinical supervision is even more paramount to ensure the continuity of professionalism and to maintain clinical standards, resulting in a quality-assured service that protects patients' safety. There has been minimal research conducted to investigate clinical supervision in the workplace, facilitators and barriers of clinical supervision and how we can assist in making improvements in the workplace. The following research questions have therefore been derived to investigate clinical supervision in the local context:

- 1) What are the current frameworks and outcome measures for clinical supervision in allied health professions in Singapore?
- 2) What are the facilitators and barriers to learning within the current framework of clinical supervision?
- 3) What are the facilitators and barriers to supervising within the current clinical supervision framework?
- 4) How can we improve the current framework to assist in improving the quality of healthcare standards in Singapore?

**Method:** A two-round Delphi technique was employed. In the first round, 77 participants participated in answering an open-ended anonymous online questionnaire targeting the research questions. Their responses were then analyzed with thematic and content analysis. The themes were then categorized and used for the second round of the survey. A total of 55

participants participated in round two. Participants were requested to rate their level of agreement according to a five-point Likert scale. The results were then analyzed according to the percentage consensus achieved. A level of 68% was set for the percentage consensus in the study.

**Results:** Analysis of data from round one revealed similar themes for both supervisees and supervisors across all questions. Analysis revealed current supervision practices that included a focus on clinical teaching, development of skills, emotional support, administration and organization. Analysis of facilitators and barriers of clinical supervision fell within the themes of clinical, developmental, emotional and administration. Suggestions for improvement were identified as having protected time set aside for clinical supervision, a dedicated clinical supervisory unit and a more conducive work environment for learning. In round two, 63 out of 77 themes from round one were considered to be important for both supervisors and supervisees.

**Conclusion:** The findings of both rounds of the survey revealed that in this workplace, the supervisors and supervisees have a common understanding of clinical supervision. This allows a smoother implementation of clinical supervision. The outcome measures that are implemented so far largely relies on objective measures which can show the effectiveness of clinical supervision. The facilitators and barriers of learning and supervising within this current framework were all mostly in line with the literature so far. This indicates that across professions, the areas surrounding clinical, professional, administrative, emotional and developmental aspects are similar. This can also indicate that the suggestions of improvement for clinical supervision for allied health professionals can potentially be used

across other disciplines that require clinical supervision. In order to enhance and provide a more conducive environment for learning and supervision, some of these suggestions for improvements for the current framework for clinical supervision can be considered.

## **INTRODUCTION**

This focus of this thesis is a study of clinical supervision among allied health professionals based in a large hospital in Singapore. The thesis begins with a literature review that considers the international research into clinical supervision including various framework and models of clinical supervision. The review also describes identified facilitators and barriers to clinical supervision and briefly reviews principles of adult learning. The methodology chapter describes the study which was designed to investigate allied health professionals' experiences and perceptions about clinical supervision. The results chapter discusses the responses that were received and the percentage consensus that were achieved and the outliers to these results. These results are discussed with relevance to the existing literature in the discussion chapter. Study limitations and future directions for clinical supervision practice and research are also presented in the discussion chapter.

### **1.0 WHO ARE ALLIED HEALTH PROFESSIONALS?**

Allied health professionals provide ancillary health services to clients or patients admitted to hospitals or residing in care-based or rehabilitation institutions. The specific allied health professions include physiotherapy, occupational therapy, social work, speech and language pathology, podiatry, dietetics, psychology, prosthetics and orthotics and exercise physiology (Leggat et al., 2016). The role of these professionals is specialized within their scope of practice. These professionals assist patients who need rehabilitation or intervention to integrate back into the society and carry out their activities of daily living. An example can be a physiotherapist and occupational therapist working on a patient post stroke to achieve functional independence and functional mobility to integrate back into the community. A speech and language pathologist is involved in prescribing safe diet and fluids consistencies

for a patient with a progressive neurological disease. Together with the speech and language pathologist, the dietitian works to optimize the nutritional requirements for the same patient. These professionals manage patients of different conditions, for example, medical conditions like pneumonia or cancers, neurological conditions like dementia, stroke or Parkinson's Disease. In order to allow a safe transit into society from the hospital, allied health professionals work very closely with one another to ensure that these patients achieve the most optimal outcome during the hospital stay. The wide variety of patients that these allied health professionals support places significant demands on their professional knowledge and practices. This creates a need for effective professional support such as clinical supervision. Clinical supervision rendered to these professionals is therefore essential to maintain clinical standards and to ensure a continuity of professionalism in the generations of allied health professionals to come (Bruijn, Busari & Wolf, 2006).

### **1.1 WHAT IS CLINICAL SUPERVISION?**

Clinical supervision is defined as a "support mechanism for practicing professionals within which they can share clinical, organizational, developmental and emotional experience with another professional in a secure, confidential environment in order to enhance knowledge of skills" (Berggren, da Silva & Severinsson, 2005, p. 21). Clinical supervision is first mentioned in the literature in the late 1990s to early 2000s and has been associated with reduction in burnout and supporting professional development (Goorapah, 1997). In addition, a clinical supervisory session typically takes place between an experienced and a lesser experienced professional and is indicated to be held regularly to achieve its optimal effect. Furthermore, in order to ensure that professional development is achieved, it is important that clinical supervision occurs in surroundings that support effective learning (Bruijn et al., 2006; Cross, Moore & Ockerby, 2010; Hall, Poth, Manns & Beaupre, 2016; Pront, Gillham & Schuwirth,

2016). In addition, the workplace environment should be able to provide high quality of supervision as this is one of the major contributing factors to effective learning. There are many functions of clinical supervision. High quality clinical supervision between medical professionals allows the establishment of safe clinical and accountable practice for patient safety. In addition, it promises continued professional development, which is consistent with medical professionals' beliefs and a culture of lifelong learning (Goorapah, 1997).

Studies investigating the effects of clinical supervision within healthcare professionals and nursing staff have associated benefits of clinical supervision with good leadership and positive characteristics and qualities of clinical supervisors (Chipchase, Allen, Eley, McAllister & Strong, 2012; Gonge & Buus, 2011; Titchen & Binnie, 1995). In addition, clinical supervision that is conducted in an educational and supportive environment is likely to be of higher quality and yield higher effectiveness in clinical teaching and learning (Bruijin et al., 2006). Current research has been undertaken primarily in Europe and Australia, therefore, there is a need for research focused on other contexts, such as Singapore, in order to broaden our understanding of clinical supervision and to investigate the current state of clinical supervision in hospitals.

Lastly, clinical supervision can assist in producing better patient outcomes as clinical supervision can be used to ensure clinical competence and therefore, protecting patient and enhancing patient safety (Clouders & Sellars, 2004). However, Wright (2012) indicated that there has not been a direct correlation that clinical supervision benefits patient care. Therefore, this indicates the need for research to further build the correlation between clinical supervision and patient safety in the local settings.

## **1.2 CLINICAL SUPERVISION ON AN INTERNATIONAL SCALE**

The practice on clinical supervision, is likely to vary within and between different countries. For example, in New Zealand, a similar process of registration to work as a physiotherapist is required for new graduates. When the physiotherapist slowly gains experience via clinical supervision from their supervisors and increases their “expertise” to become a “senior practitioner” in the field, the physiotherapist can then be registered as a Physiotherapist Specialist (Specialisation, Physiotherapy Board of New Zealand, 2017). This specialist role demonstrates the individual has achieved an advanced level of competency. In order to achieve such advanced level of competency, the individual must have received sufficient previous clinical supervision. The registration of a Physiotherapist Specialist in New Zealand differs from the Singapore system of a “senior therapist”. In Singapore, a “senior therapist” is recognized by their respective workplaces via different criteria and promotion system that can differ from each institution, which may not require special registration to be a specialist.

In relation to another allied health profession, for a Speech Therapist Specialist to be working as a supervisor in Australia, the nominated speech therapist will be required to produce documents to show that the clinician has worked for at least five years in the clinical field, with a minimum of two years dedicated to providing clinical supervision for less experienced colleagues (Speech Pathology Australia, 2017). A similar system is in place in the United States of America for new Speech Language Pathology graduates who are required to complete a Praxis Examination before applying to ASHA for a Certificate of Clinical Competence in Speech Language Pathology (ASHA, 2017). Thereafter the candidate will be required to complete the Clinical Fellowship of at least 36 weeks with a clinical mentor. Summary evidential documents are then submitted for review and approval before the candidate is certified as a CCC-SLP to

work independently. This process places importance on the role of the clinical supervisor and the clinical supervision process.

The clinical supervision model most commonly used in Singapore is similar to that of the United Kingdom where a new graduate (belonging to the professions of dietitians, occupational therapists, physiotherapists, radiographers, social workers and speech therapists) needs to be registered under the Allied Health Professional Council and receive one to maximum of two years of clinical supervision prior becoming a full member. There are no further requirements on the minimum or maximum hours of clinical supervision for full members or criteria to become “senior/advanced” therapists (Health & Care Professionals Council, 2017). This suggests that status is based on the years of clinical experience, rather than knowledge or expertise in clinical supervision.

### **1.3 CLINICAL SUPERVISION FRAMEWORKS AND MODELS**

There are many different models of clinical supervision that are currently practiced within medical environments. Three common models with relevance due to their relevance to allied health professionals include Proctor’s model of Clinical Supervision, the CLEAR model and the “Growth and Support” model. These models are summarized below.

#### **Proctor’s Model of Clinical Supervision**

The model most commonly reported in the literature is Proctor’s model of clinical Supervision (Dawson, Phillips & Leggat, 2012; Winstanley & White, 2003). This model is also frequently used in clinical supervision involving physiotherapy, midwifery and nursing, in particular psychiatric nursing (Goorapah, 1997). Proctor’s model involves three different aspects of clinical supervision, namely normative, restorative and formative functions. The normative aspect involves answering and being accountable to a code of ethics and issues surrounding professionalism such as boundaries, quality of clinical practice and confidentiality. The

restorative aspect involves the process of providing emotional support where the supervisors get in touch with the supervisee and discuss negative aspects of work such as stressors and burnout. Thereafter, if the supervisee needs help, it will be both the supervisor and the supervisee's responsibilities to engage other avenues of formal help for emotional difficulties. Lastly, the formative aspect assesses the supervisee's clinical skills and development, in concordance with evidence-based practice (Dawson et al., 2012). In practice, all three aspects of this model allow providence of individual support from the supervisor to the supervisee during 1:1 sessions and provide an avenue for the supervisee to learn about the profession clinically, gain self-confidence emotionally and increase knowledge base of the profession (Lyth, 2000).

#### **CLEAR model**

The CLEAR model is commonly used in clinical supervision for allied health professionals, particularly in physiotherapy (Dawson et al., 2012). This model integrates tasks and processes such as a Contract (C) that aims to create a mutual understanding of the goals of each session. Listen (L) is the active listening by all parties involved in the clinical setting. The exploratory (E) phase involves asking questions to help generate new knowledge for the supervisee. This stage also allows for active and independent learning by the supervisee which promotes retention of new knowledge. Accelerate (A) describes the follow up sessions to support acceleration of clinical intervention. The "R" refers to reflection and reviewing of actions previously stated. The CLEAR model provides systematic guidance for clinical supervision as it formulates a step-by-step clinical supervisory process, however, it largely ignores more broader considerations for clinical supervision.

#### **The "Growth and Support" model**

The “Growth and Support” model is the third model also described by Dawson et al., (2012) and Winstanley and White (2003). This model is frequently used by nurses and midwives and makes use of scaffolding to assist the development of the supervisee. It also seeks to assist the development of desired characteristics by a supervisor. This allows the supervisor to reflect on his/her own clinical practice and methods and techniques of providing clinical practice. This in turn helps the supervisor become more skilled in providing clinical supervision. A limitation of each of these models is that they were developed without direct consideration of hospital-based practices and focus areas such as patient safety. Therefore, the opportunity exists to develop further models that provide more direct clinical link to hospital and governmental aims such as health and well-being of staff and patients.

#### **1.4 DIFFERENT MODES OF CLINICAL SUPERVISION**

Within the various models of clinical supervision mentioned above, there can also be many variations of mode of delivery for clinical supervision based on the models of clinical supervision. These modes can include obtaining clinical supervision from a person with a different professional background or role, informal or formal small group supervision, and individual supervision involving reflection and feedback sessions.

One mode of clinical supervision for consideration by allied health professionals is obtaining clinical supervision from other professions. Chipchase et al. (2012) studied eight health care students and supervisors who were of different professions pre- and post- clinical placements. The professions included in Chipchase et al.’s (2012) investigation were medicine, physiotherapy, occupational therapy and speech therapy. Supervisors in the study were required to supervise two students from each profession to enhance and maximize clinical benefits during a student placement. It was found that having supervisors from a different profession can help the supervisee develop clinical reasoning as the supervisee will need to

investigate more into the rationales, benefits and procedures of carrying out the intervention in order to explain to the supervisor who is of a different profession. This therefore enhances and promotes learning and development. Upon conclusion of the placement, the students felt that it was necessary to have a supervisor of similar profession as it facilitates explanation of certain types of profession-specific skills and allows for more profession-specific feedback and learning, however were open to having a second supervisor from a different profession as it allowed the student to learn more about teamwork. In addition, it provided an alternative viewpoint and perspective of another professional that allowed better team dynamics and a more holistic viewpoint of the caseload.

The second common mode of supervision used in allied health clinical supervision is group supervision. Group supervision can take the form of formal and informal small group discussions, case or clinical discussions with two or more clinical supervisors and or fellow supervisees (peer supervision). When establishing or conducting group supervision, the following considerations need to be addressed and planned (Chipchase et al., 2012): the supervisor should consider group dynamics and team formation; include briefing sessions in these delivery modes to scaffold the learning (Holmlund, Lindgren & Athlin, 2010). Holmlund et al. (2010) investigated that a briefing session in a group, followed by the supervisor answering questions can potentially be a means of increasing opportunities for critical thinking during clinical supervision sessions. This can help to increase personal and professional confidence in the group. Small group teaching with 5 to 7 group members is efficient and this results in development of clinical skills, learning from group members and providing each other with objective feedback to build confidence (Wilson, 1999). Critical to the effectiveness, a facilitator is nominated to ensure that full participation of all group members. A written agenda regarding the goals of the group supervision should also be

implemented. Multi-disciplinary group supervision is a further approach that can be cost-effective and efficient as learning would be able to take place across different professions promoting the multi-disciplinary model and enhancing knowledge of the roles of other professionals (Cross et al., 2010). Cross et al. (2010) added that clinical supervision may be less threatening if it was conducted at the level of peer group supervision. However, Cross et al. (2010) argued that all group members should be of a similar clinical level for group supervision to be effective. After the group session, reflection and feedback is strongly recommended from each group member (Cross et al., 2010). Reflection practice can include thinking about the procedure, self-evaluation of the performance, strengths and areas of improvement of the performance. Supervisors can also organize group discussions with other supervisors to allow themselves to enhance their observational skills during role play of sessions by providing feedback. In addition, group sessions have the potential to be more effective compared to 1:1 session (Winstanley & White, 2003). This can be attributed to the advice and support given by the supervisor being more effective and that teamwork and trust between colleagues and between supervisees and supervisors can further be enhanced (Winstanley & White, 2003).

Frequency of these group sessions should be set at regular timings and less than 3 months apart in order to support learning (Winstanley & White, 2003). Informal sessions promote discussions without appearing patronizing (Titchen & Binnie, 1995). This reflects that the supervisors are willing to take on feedback and opinions regarding the supervisees' performance. Ensuring and allowing the staff to explain the rationale why things were done in a certain manner over such informal sessions also helps to develop negotiation skills and uncover logic without being overly aware of the power relationship between supervisor and supervisee (Titchen & Binnie, 1995).

The last mode of clinical supervision involves individual supervision sessions involving individual reflection and feedback (Dawson et al., 2012). This is also reported in Milne & Oliver (2000) that 1:1 individual supervision sessions are the most effective and comfortable format of providing supervision and that it achieves more learning outcomes as it is more flexible. It minimizes feelings of anxiety for quieter trainees and provided the most stimulation and learning for both the supervisor and the supervisee.

The different models and modes of supervision demonstrate that informal sessions, group sessions with regular feedback and reflection sessions are current practices used to support clinical supervision by allied health professionals working in medical environments. Theoretical knowledge on these models together with the basis of adult learning principles and learning theories can potentially enhance learning in these environments as well.

## **1.5 CLINICAL SUPERVISION AND ITS RELATION TO LEARNING THEORIES AND ADULT**

### **LEARNING PRINCIPLES**

Implementation of clinical supervision in a workplace is closely influenced by different learning theories and the adult learning principles which are deeply entrenched in these theories. In order for clinical supervision to be facilitated, and therefore effective, supervisors need to understand adult learning principles (Schilling, 2016).

There are many different learning theories that are related to what takes place in the workplace. These theories include the social learning theory (Price & Archbold, 1995), the constructivist theory and the behaviourist theory mentioned in Hean, Craddock and O'Halloran (2009). These theories include the element of promoting life-long learning and optimizing learning experience which are correlated with adult learning principles in the literature. With regards to optimizing learning experience, familiarity with the dynamics of

the workplace is also important (Baltimore, 2004). Becoming familiar with the dynamics of a workplace often poses challenges for new graduates or newly hired professionals to perform at a high level of efficiency and competency (Baltimore, 2004). In order to prepare these individuals to perform efficiently and competently, it is important that principles of adult learning are considered and applied within the setting (Malik, 2016). This correlates to the social learning theory where in this case, the social learning environment happens to be in the workplace (Price & Archbold, 1995). In the social learning theory, there is strong emphasis on how the environment plays an important role in creating learning behavior and thereafter influencing cognitive processes involved in retaining new knowledge. Enhancing the learning environment for the supervisee can therefore help in developing critical thinking skills, promoting life-long learning, perceiving the needs of learner via developing the confidence level of their clinical skills. This also helps in providing a safe, structured and supportive learning environment to supervisees and hence coincides with the fundamentals of adult learning principles.

Another adult learning principle states that learning is best achieved when the adult learners take on an active role in determining common goals and steer the direction of learning (Cooper, 1983). This is associated with the constructivist theory which focuses on active learning and regular engagement in the learning process. It was also suggested that knowledge is formulated when learners take on an active role to structure their own learning (Legros, Amerongen, Cooley & Schloss, 2015). Such a way is to formulate common learning goals that are set to maintain the supervisee's interest in the clinical field and that both supervisors and supervisees should take ownership of the learning process. Adult principles state that if common goals are maintained, it further enhances the motivation level of the learners as they know why and what they are learning (Bryan, Kreuter & Brownson, 2009).

This also encourages active participation during the process of clinical supervision. Taking ownership of the learning during clinical supervision has been shown to bring about appreciation, meaningful relationships and increased satisfaction of the learning partnership between the two parties (Baltimore, 2004; Bankert & Kozel, 2005). This increases commitment to the workplace and potentially support positive staff retention rates. It has been emphasized that adult learners need to take responsibility of their own learning to facilitate the benefits of clinical supervision (Brueggeman, 2006). If adult learners take responsibility of their own learning, it can help to reinforce new knowledge acquired and facilitate linking of concepts from previous experience (Lotrecchiano, McDonald, Lyons, Long & Zajicek-Farber, 2013). This is further reinforced in the constructivist theory described by Malik (2016) that linking concepts and previous experience are core elements of learning and that it helps to formulate new knowledge in adult learners and gain self-identity simultaneously.

Lastly, applying adult learning principles in clinical supervision contexts can help to cater to different learning styles of the adult learners and allow the adult learners to link previous experiences with the learning setting (Riggs, 2010). This correlates to the behaviourist theory cited in Hean et al. (2009). Behaviourists believe that learning is associated with learning through outcomes and experiences. These experiences are the catalyst for a change in behavior and that the change of behavior will lead to better outcomes for learning to take place. To facilitate such changes in behavior, self-reflection for learners is always encouraged. With self-reflection, learners are then able to refine clinical application of their own skills and apply old knowledge into a different setting (Hean et al., 2009).

However, it should be noted that most studies of clinical supervision and adult learning principles have been conducted outside Singapore and allied health professions,

predominantly carried out within nursing and midwifery professions. Although there has been a lesser focus on research for clinical supervision with allied health professionals, these professionals also play a vital role in public healthcare. Therefore, research that informs clinical supervision in the growing fraternity of allied health professionals, particularly in Singapore, is needed to investigate on the utility of clinical supervision for these professionals.

## **1.6 CLINICAL SUPERVISION AND THE FACILITATORS OF IMPLEMENTATION**

The benefits of clinical supervision have been reported to include 1) predicting and preventing burnout 2) improving job satisfaction 3) cost-effective and cost-efficient 4) feeling supported by management and leaders 5) promoting life-long learning 6) staff retention and 7) teaching reflective learning (Cummins, 2009; Hyrkas, Appelqvist-Schmidlechner & Kivimaki, 2005; Sloan, 1999, 2005; Winstanley & White, 2003).

The most common benefit of clinical supervision is predicting and preventing burnout. Burnout refers to feelings of fatigue, doubt and inadequacy and often stems from professions that are actively involved in provision of care (Fischer et al., 2013). Prevention of and predicting burnout is one of the many positive benefits reported of clinical supervision in a hospital environment. In a fast paced and demanding work environment (e.g. a hospital), burnout and fatigue is gradually becoming one of the main reasons why people leave healthcare (Cummins, 2009). One such study that illustrated this was a study investigating nursing staff who had experience with clinical supervision (Gonge & Buus, 2011). It was concluded that having appropriate clinical supervision can help to reduce the sense of professional isolation as the nursing staff sampled reported more sense of support within the profession resulting from clinical supervision (Gonge & Buus, 2011). This, coupled with the “Growth and Support” model from Dawson et al. (2012), can help the clinical supervisor to

identify burnout early and prevent further negative emotions from developing for the supervisee.

A study investigating the risk of burnout in physiotherapists in Italy found that junior physiotherapists (<2-4 years) and most senior physiotherapists (>15 years) are at higher risks of burnout (Fisher et al., 2013). Burnout symptoms can be identified earlier if appropriate and suitable clinical supervision is available to the individual. A similar study investigating burnout in nurses discussed that the presence of clinical supervision in nurses involved in psychiatric nursing can act as providing appropriate psychological support and can become an avenue of identifying potential underlying psychological and anxiety issues (Sharrock, Javen & McDonald, 2013). This is similar to the restorative aspect of the Proctor's model of clinical supervision, where emotional concerns of the junior staff are explored and acknowledged by the senior staff.

Predicting and preventing burnout has its cascading effects on improving job satisfaction, which is a second benefit of clinical supervision. Improved job satisfaction helps to reduce negative feelings which can result in emotional depletion, incompetency at work and a negative and likely inaccurate reflection of one's ability and capability at work (Fischer et al., 2013). Improved job satisfaction can imply a reduction in job stress when negative feelings is adequately targeted and remediated (Fischer et al., 2013). This is because an engaged employee can become more energetic and exhibit positive demeanour (Fisher et al., 2013). Employees are then able to view themselves as contributing to their work demands and managing the work demands well. This engagement and connection can be assisted with the providence of clinical supervision. Well provided and appropriate clinical supervision can assist in the individual feeling more supported and less pressurized from the job demands and

thus, having more job satisfaction (Goorapah, 1997). This can be considered as a further positive aspect of clinical supervision.

Cost-effectiveness is another advantage of clinical supervision as the clinical supervisors that would be assigned to the inexperienced staff would be working in the direct and similar environment as the supervisee (Cross et al., 2010). This allows the organization to produce more competent staff under the coaching of seniors and reduce the need for external courses and personnel to intervene. In addition, coupled with better job satisfaction, this promotes staff retention and thus, reduces the time and costs needed for retraining should an employee decide to leave the organization (Cross et al., 2010).

The fourth advantage of implementing clinical supervision is allowing employees to feel supported by management and leaders. Berggren et al. (2005) described a study in which nurses who had undergone clinical supervision gained more self-assurance and greater ability to take on ownership to render care to their patients. Furthermore, they were more willing and prepared to take on greater responsibilities at work and prioritized their needs more effectively. This facilitates the feelings of being supported by the management and leaders of the organization and also promotes life-long learning. Therefore, it is implied that after receiving appropriate clinical supervision, they were well able to educate further generations of newly employed nurses.

Maintaining the employees' interests in their roles via clinical supervision can also enable higher staff retention rates. Clinical supervision allows them to be more interested in their job responsibilities and thus, encouraging them to learn more about their area of interests and promoting life-long participation in their careers. It has been suggested that clinical supervision provides accountability for safe practice in the profession of physiotherapy and provides a practical economical means of using experience from existing staff to optimise high

standards of care (Clouder & Sellars, 2004). In a study of physiotherapists, it was concluded that clinical supervision enhances professional identity, with providers of clinical supervision having appropriate skills and competencies (Clouder & Sellars, 2004). In addition, the study also concluded that the environment of clinical supervision needs to be conducive for the less experienced therapists to feel less threatened about clinical supervision to promote life-long participation in it. In addition, qualified supervisors should always be dedicated to education and providing clinical supervision (Clouder & Sellars, 2004).

Reflective learning is also strongly encouraged as part of clinical supervision. A study by Hall and Cox (2009) concluded that clinical supervision is a platform to support and promote reflective practice. Physiotherapists in that study reported that clinical supervision allowed them to reflect and think about past events, experience and ideas. Such reflection was reported to be encouraging if it was performed in an objective manner that stimulated critical thinking on the practitioner's perspective. A practical integration of this approach is mentioned in the Proctor model of clinical supervision and the CLEAR model. Reflecting on the supervisee's own practice can promote the identifying of lapses in clinical learning and how clinical skills can be improved subsequently. Concurrently, the supervisor reflects on his method of feedback, think about how to facilitate better communication and build better rapport with the supervisee. The objective of clinical supervision then is to facilitate the process of translating workplace experience into learning and professional development which is important for inexperienced therapists. In addition to this, having reflective practice also helps in critically appraising and reviewing one's own skills to seek improvement (Hyrkas et al., 2015). Another study by Hyrkas et al. (2005) gathered data on ward nurses specializing in psychiatry and concluded that parallel effects of the positivity of clinical supervision was observed after 1, 2 and 4 years of clinical practice. Reports of positive feelings of job

satisfaction and progressive acquiring of knowledge for continuous professional development were observed. Furthermore, there were reports of increased sense of security within the work environment. All these can be translated to greater job satisfaction and therefore, promoting staff retention, encouraging life-long learning and preventing burnout.

In summary, it is crucial that workplaces are fully supportive of engaging its employees in clinical supervision (Lynch & Happell, 2008). This stimulates the employees to learn more about their own professions and add personal growth to their clinical abilities. With enhanced clinical supervision, new graduates, junior therapists and senior therapists would be well supported during times where they faced difficulties regarding clinical work. This could help with staff retention and facilitate in increasing job satisfaction as they would be able to more readily identify their needs for growth with regards to career development. Further potential benefits include ensuring employees are appropriately challenged and engaged within their position responsibilities and therefore, assisting them to develop clinically and personally.

It is however observed that various workplaces can have different facilitators to the implementation of clinical supervision that are unique to the work environment. Therefore, this supports the need for local research studies to investigate any potential and unique facilitators that can enhance clinical supervision and employee development.

## **1.7 CLINICAL SUPERVISION AND THE BARRIERS OF IMPLEMENTATION**

Despite the benefits of clinical supervision explored earlier, there are also barriers and negative aspects to clinical supervision reported in the literature. These include (a) clinical supervision being time-consuming and emotionally-draining for supervisors (b) financial constraints for the organization (c) lack of common understanding of clinical supervision resulting in difficulty establishing desired relationship with supervisors (d) limited resources in the organization (e.g., lack of senior and qualified staff; and (e) misconception that clinical

supervision only applies to inexperienced staff (Cummins, 2009; Johns, 2003; Koivu, Hyrkas & Saarinen, 2011; Lynch & Happell, 2008).

Cummins (2009) critically analyzed 49 papers that focused on positives and negatives of clinical supervision. This critique reported few negative aspects of clinical supervision. For example, Cummins (2009) stated that some professionals might potentially be unsupportive as some of them experienced short and irregular clinical supervision due to time constraints. Time needs to be prioritized when planning and arranging for clinical supervision (Cummins, 2009). This phenomenon is further challenged when there is a greater need to prioritize time when there are inexperienced staff under the supervisor. In order to provide high quality supervision that supports effective learning, supervisors should set time aside for clinical teaching for novice practitioners. However, high levels of work demand and caseloads, clinical supervision may thus be compromised due to a “lack of time”. This is echoed in the principles of adult learning by Russell (2006). The issue of “lack of time” can potentially be further complicated when the clinical supervisors hold multiple roles in the organization. Johns (2003) reported that in busy situations, clinicians prioritized “managing chaos” in the workplace over providing clinical supervision. Therefore, the lack of time and the de-prioritization of clinical supervision can potentially lead to the failure of the supervisory system. Once again, the organizational culture should support clinical supervision by respecting the protected time for it (Clouder & Sellars, 2004).

Difficulties and conflicts in supervision relationships may also develop when a line manager performs dual roles of manager and supervisor (Goorapah, 1997; Sloan, 2005). Yegdich (1999) stated that boundaries between parallel systems of management appraisal and clinical supervision should be very distinctively demarcated. Supervision should be aimed at providing clinical teaching without being judgment of the supervisee’s clinical skills. Goorapah

(1997), Hall and Cox (2009) and Sloan (1999) hypothesized that for a manager to be taking on the same role as a supervisor, the supervisee can experience a fear of being judged and potentially punished during probationary period and thus, may produce unsatisfactory outcome, leading to potential failure of the supervisory system. The junior physiotherapists described by Hall and Cox (2009) reported that the supervisee may potentially become resistant to feedback about his ongoing practice and decline to ask for supervision in order to present the impression of being “competent” in front of the manager. The need for the supervisee to feel “competent” in front of the manager was also further emphasized in Sloan (1999). It was argued that if the supervisor had managerial roles and responsibilities, it was inevitable that management tasks would be brought to the supervisory session. Clinical supervision in this instance would not be effective and therefore, may not attain its desired outcomes to increase clinical knowledge and improve clinical skills. Potential tension between the supervisor and supervisee can also lead to a difficult relationship between the two parties which may negatively affect staff management (Sloan, 2005). This was further reiterated by Goorapah (1997) that potential bias may also occur if no effective and appropriate action is taken when conflicts of interest occurs between supervisors and supervisees. Lynch and Happell (2008) and Smith (2001) also mentioned that most of the staff will be dubious about the purpose and the integrity of clinical supervision when it involved line management. In this situation, staff may feel that there are unspoken and ulterior motives for clinical supervision or micro-politics involved. Thus, Cummins (2009) proposed that supervision should take place at a less threatening level with the supervisor (due to power/authority differences) to facilitate development of the novice practitioner.

Professionals’ understanding of the role of clinical supervision is a further barrier to implementing clinical supervision. Koivu et al. (2011) reported that there is the lack of

common knowledge of the role of clinical supervision and the misconception that supervision is only for novice practitioners. There was a lack of a common ground for the role of clinical supervision as it was observed that some health-care professionals assumed that it would only be applicable to junior staff. However, it has to be mentioned that supervision should apply to all staff as all staff will need to feel supported by the organization and that such support can be obtained via the provision of supervision. In addition, there is a lack of “common aims of goals” by the supervisor and supervisee. In order to counter the lack of common goals and aims, Wilson (1999) proposed the need for clinical supervision to involve documentation that states information such as protected time of supervision, frequency and the aims of supervision. This will help to ensure expectations are clear on the timing of supervision, personal and professional practice issues and enable protected time for training for clinical supervision to be successful. Another aspect of poor supervision due to poor mismatching of supervisor and supervisee can lead to disastrous effects on patient care. Touchie, De Champlain, Pugh, Sowning and Bordage (2014) observed supervision for first year resident doctors in the medical fraternity. They discovered that the discrepancy between expectations of the resident doctors and their supervisors contributed to an increased number of deaths due to lesser supervision of novice doctors. This led to the conclusion that if a mismatch or discrepancy in expectations of quality of clinical supervision, it can be harmful to patient’s well-being. Therefore, clinical supervision should be targeted at achieving common understanding to assist in patient care. Otherwise, there is evidence that poor quality supervision can have catastrophic ripple effects on patient care. These effects can be avoided and alleviated with the provision of high quality supervision.

Research suggests that central government policy and a lack of leadership in promoting education and training is perceived as a barrier to implementation of clinical supervision

(Lynch & Happell, 2008). This research, based in rural Australia, examined clinical supervision between line-managers and nurses working in a mental health setting. The responses in the study described the potential lack of a driving force to recommend and encourage implementation of clinical supervision. Some of the existing staff had opinions that supervision was management driven and therefore, staff were less receptive to clinical supervision implementation. This had the potential to compromise the training of existing staff as there may not be any definitive guideline for the management and organization being able to maintain supervision objectively. Bush (2005) acknowledged similar concerns about the need for organizational support to raise and promote awareness of the value of clinical supervision among all staff. In addition, the long-term benefits of clinical supervision will need to be understood in order to support implementation. Bush (2005) also suggested that clinical supervision should focus on developing and understanding the ability of the supervisee, and seeking opinion from staff rather than being used as a tool to judge and critically appraise the supervisee's performance.

In summary, the barriers to effective clinical supervision need to be investigated further within local contexts and within the allied health fraternity of Singapore. This will further assist in developing more effective frameworks of clinical supervision to meet the specific needs of the Singapore context.

## **1.8 CLINICAL SUPERVISION FOR ALLIED HEALTH PROFESSIONALS IN SINGAPORE**

### **1.8.1 WHO ARE ALLIED HEALTH PROFESSIONALS IN SINGAPORE?**

Allied Health Professionals in Singapore, also known as AHPs, consist of many diverse groups of professionals who provide ancillary healthcare services for all Singaporeans. In Singapore, audiologists, dieticians, occupational therapists, physiotherapists, podiatrists, radiographers and speech-language therapists (Ministry of Health [MOH], 2016) are all considered to be

allied health professionals. In recent years, there has been considerable growth in terms of publicity of these professions have received and the number of people joining these professions in Singapore (Cheong, 2015). This has resulted in a significant increase in the number of younger and less experienced allied health professionals present in the Singapore healthcare scene (Chan, 2016). The attrition rate of the professionals is variable and may potentially increase and thus, influence the experience and quality of the younger generation of allied health professionals. This is further challenged by an increasing workload due to the ageing population (Boh, 2012). Engaging more senior professionals to provide clinical supervision will therefore be a challenge for people in management positions. Professional clinical supervision is an essential foundation for a novice allied health professional (Clouders & Sellars, 2004). It is crucial that novice professionals receive good quality clinical supervision from the beginning of their career (Goorapah, 1997). Due to the boom in the number of novice allied health professionals in Singapore, more supervisees can potentially find themselves caught in a situation where they do not receive sufficient clinical supervision or that the clinical supervision they receive are of substandard quality. Conversely, the more experienced staff may potentially feel burnt-out from their many years of service and an increased workload (Lim, 2013). This may result in reduced enthusiasm towards pedagogy and more resistance to educating the next generation of practitioners. This could potentially lead to more senior AHPs leaving the allied health sector in Singapore, resulting in poorer quality of clinical skills of novice practitioners. However, there is little information available about the state of clinical supervision in the allied health professionals in Singapore and the emotional state of these senior allied health workers. This needs to be addressed in order to maintain and advance the level of care for patients, their safety and clinical healthcare standards, as well as the well-being of AHPs. Therefore, the current project was undertaken

to collect the perspectives and experiences of clinical supervision of allied health staff working in an acute tertiary hospital in Singapore.

### **1.8.2 THE CURRENT CLINICAL SUPERVISION PRACTICE IN SINGAPORE**

In Singapore, many tertiary hospitals have adopted different values and styles of teaching and clinical supervision. It is stated in the Allied Health Professionals Council of Singapore that all newly qualified therapists require temporary registration and must receive clinical supervision for a minimum period of 1 year before becoming fully registered (MOH, 2016). As tertiary hospitals in Singapore are distributed in clusters across the island, it is inevitable that each hospital develops their own scope of teaching and style of supervision.

As per the MOH guidelines, it is mandatory that all acute hospitals in Singapore follow the clinical supervision guidelines based on the statement from the Allied Health Professionals Council (MOH, 2016). All new graduates will be placed with qualified supervisors who will then determine their suitability and competency for full registration after 1 year. There will be a stipulated minimum number of hours for new graduates to receive clinical supervision within this first year. A key objective of the first year is to experience a wide variety of caseloads and interactions with other disciplines. For example, new graduates in the hospital are required to rotate every 6 months into different discipline areas. Once these new graduates become fully registered, they will be allocated to different supervisors who will then support them to set individual action plans. Subsequent follow-ups of their clinical goals will be based on these individual action plans with no indicated minimum hours of clinical supervision. When these graduates become “senior therapists”, they will then provide clinical supervision based on their past experiences to the next batch of new graduates. Thereafter, their overall level of experience in receiving clinical supervision will be at a minimum once they achieve “senior therapist” status. This implies that there is scope to further define the

roles and responsibilities surrounding clinical supervision for allied health professionals in Singapore to ensure that staff members gain the mandatory support while engaging in safe and fruitful supervisory experience.

## **1.9 SUMMARY AND RESEARCH AIMS**

In summary, there are both facilitators and barriers to supervision and that have been identified by research mostly focused on nursing (psychiatric nursing) and midwifery. The benefits of clinical supervision include predicting and preventing burnout and improving job satisfaction. Experiencing supportive management and leaders and having an environment that promotes life-long learning is also listed as one of the key advantages of clinical supervision. Furthermore, with such a supportive environment, this can further increase staff retention rates and promotes reflective learning. On the contrary, a number of barriers include clinical supervision being time-consuming and emotionally draining, a lack of common understanding and common goals and expectations set by the supervisee and supervisor. Limited resources in the organization (e.g., lack of senior and qualified staff) accompanied with the misconception that clinical supervision only applies to inexperienced staff is also listed as a barrier. There has been some research into clinical supervision implementation in allied health professionals in overseas contexts. However, there is a need for further research focused on the local Singapore context with a range of allied health professionals.

Currently, there is mandatory supervision for certain groups of allied health professions when they are new graduates. After a period of time, supervision may not be required due to barriers such as the lack of protected time for clinical supervision, the lack of clear guidelines in clinical contracts and involvement of line management as described by Goorapah (1997).

This suggests that the quality of available clinical supervision can deteriorate and can also signify the regression of clinical standards which pose potential risks to patient safety and

healthcare standards in Singapore. Therefore, it is important to investigate the current trends within clinical supervision, identify facilitators and barriers to clinical supervision in Singapore and how to further improve clinical supervision to ensure maintenance of an appropriate quality of clinical standards.

The following research questions investigated in this research project are:

- 1) What are the current frameworks and outcome measures for Clinical Supervision in allied health professions in an acute tertiary hospital in Singapore?
- 2) What are the facilitators and barriers to learning within the current Clinical Supervision framework?
- 3) What are the facilitators and barriers to supervising within the current clinical supervision framework?
- 4) How can the current framework be developed to enhance the quality of healthcare standards in Singapore?

## **2.0 METHODOLOGY**

### **2.1 ETHICAL CONSIDERATIONS**

Ethics approval for this study was gained from the Centralized Institutional Board of Singapore (Singhealth), Reference 2016/3030 and the University of Canterbury Human Ethics Committee in New Zealand (See Appendix A).

### **2.2 RESEARCH DESIGN**

The study utilized a Delphi technique qualitative methodology in order to obtain viewpoints to describe facilitators and barriers towards clinical supervision. This research design will be further elaborated in the following sections.

The Delphi technique has been used within healthcare settings to predict trends and decisions from a series of structured questions from a group of expert participants (Bonner & Stewart, 2001; Falzarano & Zipp, 2013; Hasson, Keeney & McKenna, 2000; McKenna, 1994; Tomasik, 2010). Williams and Webb (1994) described the Delphi technique as a method of obtaining information through a series of rounds of questioning of experts. The first round of questions is determined by the researchers, with the results then being used to formulate a subsequent list of questions for presentation to the same group of participants. This technique has been reported as appropriate for use for nursing research and radiography research focused on investigating clinical learning (William & Webb, 1994). Similarly, Powell (2003) reported the use of the Delphi technique in nursing, health care research and industry-based research. Powell (2003) proposed that there could be 2 or more rounds of survey (independent of the industry that the technique is being used). In the first round, the researcher provided a summary of the forecasts and opinions from previous rounds. In the second round, questions asked would be more specific and opinions were now likely to be ranked or rated.

A common rating/ranking scale that was used would be the Likert scale (Vázquez-Ramos, Leahy & Hernández, 2007; Vernon, 2009). Once pre-specified level of consensus is achieved, then feedback was considered as consistent and congruent to support the validity of findings. Vernon (2009) suggested that levels of agreement greater than 70% were appropriate, whereas other studies have suggested a level of 80% (Kennedy, 2004). A percentage matching to one standard deviation of 68% can also be considered (Rayens & Hahn, 2000). A study conducted by Tomasik (2010) among medical physicians investigating medical guidelines reported a correlation of consensus for the first round was noted to be 0.944, and a value of 0.85 for the second round. Lastly, it was emphasized by Hasson et al. (2000), Powell (2003) and Walker and Selfe (1996) that Delphi questionnaires are completed with strict anonymity of respondents.

The usage of the Delphi technique was observed to have its benefits and disadvantages. Vernon (2009) and Williams and Webb (1994) mentioned that one of the benefits of using the Delphi technique that it was relatively simple and flexible to use. This technique allowed for great diversity and variety of opinions. The researcher was then required to sieve out common consensus of these expert opinions. This method further promoted opinions without bias and therefore, would be able to achieve different viewpoints regarding a certain topic (Falzarano & Pintozi, 2013). In addition, the anonymity also allowed more candid and honest opinions free from peer pressure and pressure from authority or people in positions of power. Vernon (2009) discussed that this encouraged more spontaneity in responses and more truth in opinions compared to a face-to-face or video interviews that might not protect the confidentiality of the participants. This is important for this current research project as the researcher is working in the organization and that confidential information and feedback may be biased due to the disparity in authority.

## **The current study**

In this study, the researcher formulated open-ended questions based on the current literature that were applicable to the culture, mode and format of clinical supervision in the various allied health departments in the workplace. After the completion of the first survey, data analysis was conducted. Based on the results of the first analysis, a second survey was provided to the participant. A second and final round of analysis was then carried out to determine the level of agreement of the themes identified in round 1. At the end of this research project, a copy of the summary of the findings would be made available to the participants involved in the study.

## **2.3 PARTICIPANTS AND DEMOGRAPHICS**

Participants in this study were current allied health employees of an acute tertiary hospital in Singapore. They were medical social workers, radiographers, physiotherapists, occupational therapists and speech therapists. At the time of the study, there were about approximately 408 employees in the Department of Rehabilitative Services, Department of Radiography and Department of Medical Social Workers. Of this, it was hoped that 30% would participate in the study. The workforce surveyed was multi-cultural, with staff from countries such as Ireland, Canada and United Kingdom, in addition to staff from Singapore.

## **2.4 DATA COLLECTION**

### **2.4.1 RECRUITMENT**

Recruitment of participants for the study began once ethical approval had been received. Initially, formal permission was sought and received from the line managers and the Heads of Department of Rehabilitative Services, Department of Medical Social Services and Department of Radiography. Line managers were asked to support advertisement of the

study. The researcher then spoke to the individual managers to explain the research study and encouraged word of mouth awareness of the study and that participation was voluntary. Electronic mail messages were sent to a total of 408 potential participants from the departments mentioned. The message included the study and consent information (see Appendix B).

#### **2.4.2 PROCEDURES**

##### ***Development of round 1 questionnaire***

The first questionnaire was developed by the researcher with the aim of investigating the culture of clinical supervision across the different professions, and participants' perceptions and experiences of clinical supervision. This included the perspectives of supervisors and supervisees about potential issues and difficulties experienced by participants and the possible future directions of clinical supervision across the different professions. The first questionnaire included open-ended questions based on the principles of the Delphi technique. Prior to disseminating the first questionnaire in Singapore, a pilot study was conducted in New Zealand to obtain feedback and opinions to support development of the survey. The survey, which was completed and presented via the Qualtrics online survey team (see Appendix C) was distributed to a small group of clinical supervisors based at the University of Canterbury. Five participants participated in this first pilot study. Participants were asked to comment on various aspects of the functionality and content of the questionnaire. As a result of this feedback, minor changes were made to the questions. For example, a question initially presented as "Please describe the support you provide in your experience of clinical supervision" was revised to two different questions to indicate the responses from a supervisee and a supervisor. Once the survey was finalized, participants in Singapore were invited to complete the survey and advised of 2 to 3 weeks' time frame to do this.

### ***Development of round 2 questionnaire***

The second questionnaire was developed based on themes identified from the responses to the first questionnaire. Consistent with the Delphi technique, the questionnaires for the second round were developed using Likert scale responses as the mechanism for obtaining consensus across the various themes (see Appendix D).

A second pilot round questionnaire was developed and presented to three employees from different professions than the target group. The aims of this pilot were to determine the suitability of the themes relating to the culture and context of the workplace. Feedback about the wording of the questions and themes were also obtained. Based on this feedback, minor changes were made to several questions. For example, “When considering ‘what does clinical supervision mean to you?’, please indicate your level of agreement/disagreement with each statement” was changed to more direct language (e.g., “Please indicate your level of agreement/disagreement to each statement: to me clinical supervision means”). After the minor changes to survey questions were completed, the access link to the second questionnaire survey was distributed to the participants who responded in the first round.

## **2.5 DATA ANALYSIS**

This section describes the data analysis processes undertaken during the study.

Round 1: As this research involved qualitative study methods to identify ideas and opinions (Petty, Thomson & Stew, 2012), both thematic and content analyses were used in combination. It was intended that these methods of data analysis could assist in understanding participants’ experiences and opinions accurately. These method of data analyses involved the researchers immersing herself in the data collected to seek common codes in the study. Thematic analysis was employed as it was a flexible method of analyzing data and ensured a broad range of pattern-type analysis (Braun & Clarke, 2006). It also

allowed the researcher to further go in depth to identify common themes and subthemes to investigate and derive reasoning for recurring themes. It provided an approach that promoted a thorough understanding and analysis of participants' viewpoints (Vaismoradi, Turunen & Bondas, 2013) while interpreting the participants' responses in the most naturalistic manner.

The researcher undertook six steps of analysis (Braun & Clarke, 2006) (see Figure 1).

Firstly, the researcher immersed herself in the data that had been collected as she was required to thoroughly understand the data collected. This involved repeated reading and sorting of data to discover relevant codes and to identify patterns within the data. Relevant to this project, patterns correlating to level of satisfaction of clinical supervision, facilitators and barriers of implementation of clinical supervision and improvements that were desired for clinical supervision in future.

Round 2: The second step involved creating an initial list of ideas and identifying codes to describe the data in a meaningful way. The researcher methodologically described aspects of the data that formed a pattern and related it to the codes that were initially identified (Petty et al., 2012). Once all data had been analysed and coded, the third step involved reorganizing data into themes and subthemes.

The fourth phase integrated the themes so that the data from the themes were coherent and meaningful to the researcher.

The fifth stage involved further refinement of themes to increase the structure and organization of the data.

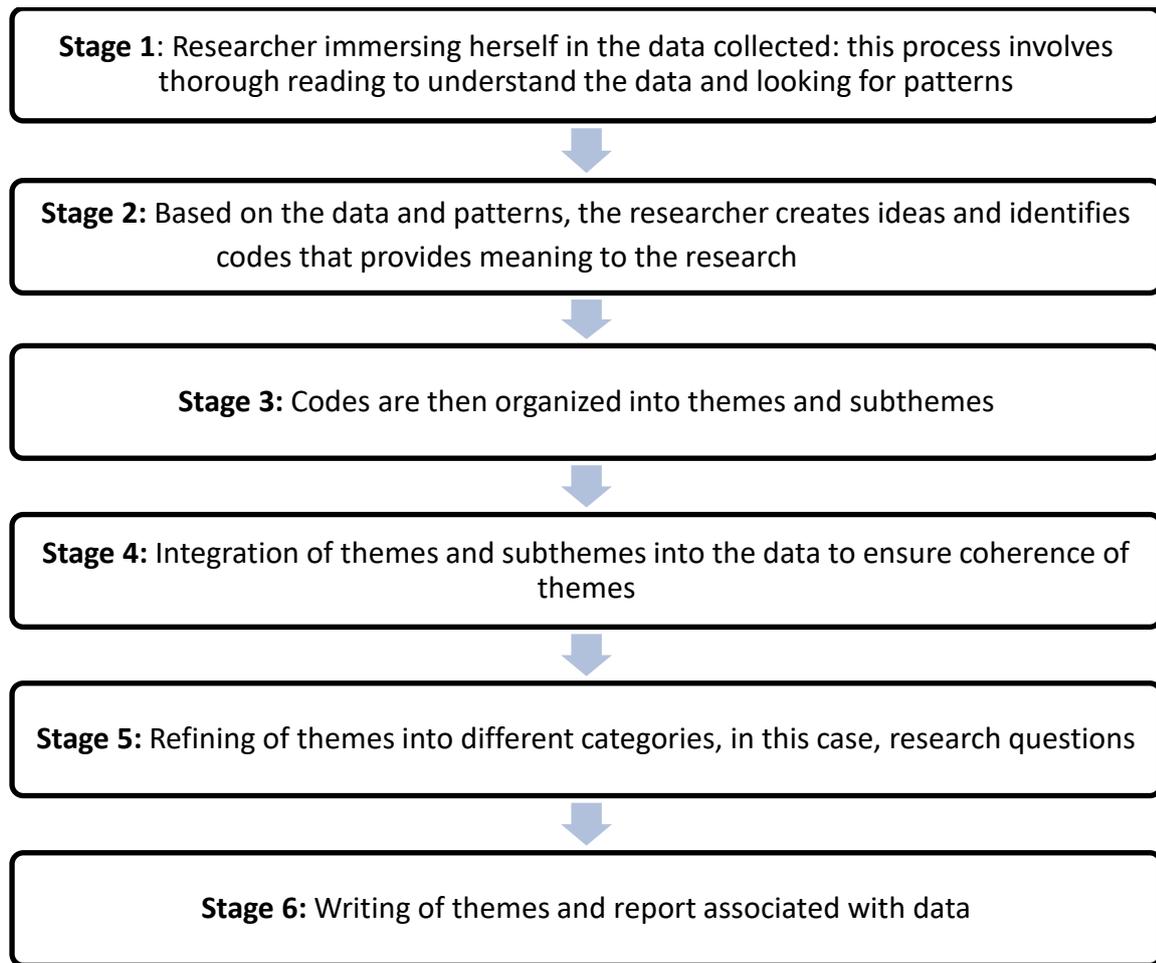
The sixth and final stage involved writing up the themes and describing these with examples from the data.

Across these stages, the researcher was required to analyse the data several times (Petty et al., 2012) to derive codes that gave meaning to the research. As Likert scale responses were used to rate and determine the level of agreement and consensus, content analysis was used to describe the content of the data and the effects and consequences of the common codes that appear (Vaismoradi et al., 2013). In addition, it allowed for both quantitative and qualitative methodologies (Crowe, Inder & Porter, 2015). This was suitable for classifying data to represent the different categories of responses. This was a key characteristic of content analysis (Graneheim & Lundman, 2003). The use of questionnaires for this project also supported the use of content analysis as the researcher would be able to quantitatively interpret some responses.

Likert scale responses were analyzed to determine the mean, mode, interquartile ranges and percentage consensus of each theme and question in the second round questionnaires. This enabled identification of the percentage agreement for each theme.

The data analyses process helped the researcher to understand the complex relationships within healthcare context (Fossey, Harvey, McDermott & Davidson, 2002). In this case, the dynamic clinical supervisory relationship. These methods of analysis focused on interpretation of human experiences and actions in the clinical setting to evaluate potential trends and categorise them into different themes. This also enabled the researcher to interpret the data as close to reality as possible (Fossey et al., 2002), and therefore, producing a rigorous and trustworthy qualitative research project.

For analysis of responses, the percentage consensus of agreement (i.e., respondent agreement with statements) was set at 68% (Vernon, 2009). Responses of “agree” and “strongly agree” were combined under “agreed” and “neutral”, “disagree” and “strongly disagree” were combined under “disagree”.



*Figure 1.* Flow chart of sequence of analysis. Adapted from Using Thematic analysis in psychology by Braun & Clarke (2006) *Qualitative Research in Psychology*, 3(2), 77-101.

### 3.0 RESULTS

This section includes the results of Round 1 and Round 2 of the study. As described above, results from round 1 formed the basis for development of the round 2 questionnaire.

#### 3.1 ROUND 1 OF DELPHI QUESTIONNAIRE

A total of 77 participants (out of 408 invitations) completed for the first round of survey questionnaire. Table 1 illustrates the distribution and demographics of the gender, age, occupation, number of years employed in the organization and the number of years of supervisor/supervisee experience the employees possess. Based on round 1 of the questionnaire, various themes were derived as reflected on Table 2.

**Table 1: Participant Demographics**

<b>Participants' Data (n=77)</b>	
<b>Gender</b>	
Female	64 (83.12%)
Male	13 (16.88%)
<b>Age Range</b>	
20-30	46 (59.74%)
30-40	26 (33.77%)
40-50	3 (3.90%)
>50	2 (2.60%)
<b>Occupation</b>	
Medical Social Worker (MSW)	4 (5.19%)
Occupational Therapist (OT)	12 (15.58%)
Physiotherapist (PT)	28 (36.36%)
Radiographer	14 (18.18%)
Speech Therapist (ST)	18 (23.38%)
Others	1 (1.30%)
<b>Years of experience</b>	
0 to 1	7 (9.09%)
1 to 3	13 (16.88%)
3 to 5	27 (35.06%)
5 to 8	20 (25.97%)
>8	10 (12.99%)
<b>Are you a supervisor? If yes, how long?</b>	

Yes (< 1 year)	17 (31.48%)
Yes (1 to 3 years)	13 (24.07%)
Yes (>3 years)	24 (44.44%)
<b>Are you a supervisor? If no, how long?</b>	
No (0 to 1 year supervisee)	11 (47.83%)
No (1 to 3 years supervisee)	7 (30.43%)
No (>3 years supervisee)	5 (21.74%)

### 3.1.1 RESULTS OF ROUND ONE OF THE DELPHI QUESTIONNAIRE

#### ***Current Framework of Clinical Supervision and Outcome Measures for Clinical Supervision***

##### *Understanding of and topics discussed during clinical supervision*

Qualitative analysis of the questionnaires in round one revealed participant understanding, roles and topics discussed during clinical supervision falling into the following themes: clinical, developmental, emotional, administration and or organizational aspects of defining clinical supervision (Table 2 and 3) from 37 responses. Participant descriptions of their clinical supervision experiences were consistent across both supervisors and supervisees, Participants described clinical supervision as a support system for development that was evidenced from the quotes “Clinical supervision involving providing guidance, knowledge and support for the younger generations of allied health professionals” and “Clinical supervision being associated with a period of stress and being an assessment of competency (Table 2). In addition, topics that were explored during clinical supervision were observed to have a strong focus on the clinical and educational aspects of clinical supervision as well. This was supported by this quote “clinical reasoning behind why we do what we do” and developmental aspect which was substantiated by “technique to improve our skill on how to solve the problem”. Other aspects participants described as being part of current clinical supervision practice included the emotional aspect supported by “emotional stressors at work” and administrative aspects surrounding “work flow, job pressures and expectations for supervisee” (Table 3).

**Table 2: Themes Derived for Question 1 from Round 1**

<b>Definition of Clinical Supervision and roles of clinical supervisors with themes focusing on:</b>	
Clinical aspect	<ul style="list-style-type: none"> <li>• Teaching and facilitating learning in a non-judgmental and relaxed manner via case discussions with elements of increasing competency and efficiency</li> <li>• Encourages and teaches reflective learning for supervisee</li> </ul> <p>Quote: “If I have patients that I have difficulty with my clinical reasoning, my supervisor can either observe or participate in a session with me and afterwards will discuss and facilitate reflection so that I understand more about appropriate assessment and treatment of the patient.”</p>
Developmental aspect	<ul style="list-style-type: none"> <li>• Providing guidance, knowledge and support for the younger generation of allied health professionals which includes developing younger generation into potential clinical roles</li> <li>• Supports and sets up supervisee’s personal and career goals</li> <li>• Maximizes supervisee’s career potential</li> </ul> <p>Quote: “The supervision of clinicians goes beyond the clinical teaching. It encompasses the development of clinicians across all areas (clinical, professional, ethical, individual). If students and junior therapists are supervised well, there is greater outreach to patients.”</p>
Emotional aspect	<ul style="list-style-type: none"> <li>• Associated with a period of stress</li> <li>• Provides emotional support, reassurance and emotional safety net for supervisee</li> <li>• Responsive to supervisee’s needs</li> </ul> <p>Quote: “As a supervisee, it means a period of stress until passing competency. It also means a period of questioning and assessment of knowledge.”</p>
Administration aspect	<ul style="list-style-type: none"> <li>• Involves more administrative and work responsibilities</li> <li>• Coaching supervisee on non-clinical aspects e.g. administrative tasks, workflows</li> </ul> <p>Quote: “Allowing the supervisee to feel welcomed into the department, whilst ensuring he/she is able to learn the workflow.”</p>
Organizational aspect	<ul style="list-style-type: none"> <li>• Role model of ethics, value of practice and participates in ensuring a good work culture in the organization</li> <li>• Ensures patient safety within the hospital</li> </ul>

	Quote: "Clinical supervision will improve patient safety as it could prevent supervisee from causing harm due to inexperience and unsafe handling."
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**Table 3: Themes Derived for Question 1 from Round 1**

<b>Topics discussed during supervision with themes focusing on:</b>	
Clinical aspect	<ul style="list-style-type: none"> <li>• Clinical knowledge gaps, clinical skills and techniques, discharge and treatment planning</li> <li>• Communication skills</li> <li>• Bedside communication skills</li> </ul> <p>Quote: "I have discussed topics such as: Clinical areas - medical, physiotherapy, techniques, treatment direction. Soft skills - ways of attending to patient, manner in which patient has been guided into receiving the information given and clinical reasoning - consolidation of information gained from the assessment / observation"</p>
Developmental aspect	<ul style="list-style-type: none"> <li>• Improving skills and techniques, areas of improvement during handling</li> <li>• Difficulties faced in session</li> </ul> <p>Quote: "What I have done well and the areas for improvement, specifically what can be done to get me to improve on the areas that I'm weak in, what are the goals for the next session."</p>
Emotional aspect	<ul style="list-style-type: none"> <li>• Emotional stressors</li> <li>• Aptitude towards learning</li> </ul> <p>Quote: "Discuss areas that the trainee is lacking in confidence or knowledge. Whether the trainee is coping well or stressed as the amount of skills and knowledge for scans can be daunting. Discuss patient care and accuracy in work processes."</p>
Administration aspect	<ul style="list-style-type: none"> <li>• Information on workflow, work instructions</li> </ul> <p>Quote: "Departmental orientation Infection control measures Patient and staff safety."</p>

### *Frequency and modes of clinical supervision*

The most common mode of clinical supervision was direct observation (e.g., 1:1 teaching) and case discussions which were reported to take place weekly. Other common modes of providing supervision also included attending lectures by supervisors, simulation of cases and discussing presentations with the supervisor. Clinical supervision sessions ranged in 0.5 to 1.5 hours teaching time. Case discussions occurred on the wards, preferably in a quiet and private area of the ward for 46 of the participants. Most participants reported that each clinical teaching session was organized with mutual agreement from both the supervisee and the supervisor at least a day ahead. Both parties would set aside a protected time and would either see the case together or discuss the case together. Complex or challenging cases were preferred in order to increase the likelihood of learning opportunities in the session. For example, both the supervisor and the supervisee were tasked to read up on the condition of the complex case so that mutual learning could take place. However, the supervisee would be the main person responsible for initiating the supervisory discussion.

### *Outcome measurement for clinical supervision*

The identified themes indicated for measuring outcomes of clinical supervision were categorized under formal, informal or none. Examples of outcomes were described as “clinical audits” (formal), and “feedback from both supervisor and supervisee” (informal). 40 participants reported formal outcome measures, 20 participants reported informal outcome measures whereas 8 participants reported as nil outcome measures for clinical supervision.

**Table 4: Themes Derived for Question 1 from Round 1**

<b>Measuring efficacy of clinical supervision with themes focusing on:</b>	
Formal	<ul style="list-style-type: none"><li>• Improvement in clinical and documentation audit scores</li></ul>

	<p>Quote: "A feedback form is used by the supervisor to rate the supervisee's performance. This quantitative measure could indicate the level of supervision that the supervisee needs at present. There is also a supervisee reflection form which provides a more fluid and dynamic perspective of the supervisee's training experience. In addition, informal verbal feedback is often sought to check on the supervisee's needs during training."</p>
Informal	<ul style="list-style-type: none"> <li>• Feedback from both supervisor and supervisee</li> <li>• Perception of improved competency and skills by supervisor and supervisee</li> <li>• Whether supervisee is able to reflect and apply knowledge learnt and manage future cases with similar clinical reasoning</li> </ul> <p>Quote: "1) Sense of gaining new knowledge 2) Sense of increasing insight to therapy limiting barriers 3) Knowledge of strategies to manage therapy limiting barriers"</p>
None	<ul style="list-style-type: none"> <li>• No specific measure</li> </ul> <p>Quote: "I am unaware if there is an outcome measure in place, but I strongly believe that giving those willing the option for anonymous feedback will be beneficial. However, I don't think there is any in place in the hospital."</p>

### ***Facilitators and barriers to learning in the workplace***

The second research question investigated the facilitators and barriers to learning in the workplace. It was clear from responses that the perceived quality of clinical supervision was largely varied from positive to negative. A total of seven themes were identified across the supervisors and supervisees. The themes that were both facilitators and barriers for learning in the workplace were related to areas of clinical, developmental, emotional and administrative aspects of clinical supervision (Table 5). Supporting statements included a supervisor's ability to adapt to the supervisee needs - "Good quality when clinical supervision style matches needs", ensuring the supervisee is getting a quality service - "I feel that at any

one point in time I have given my best effort in mentoring all the mentees I have taken through the years”, ensuring the supervisee is demonstrating ethical practice - “We need to make sure that our supervisees are safe in their clinical practice, and I hope we have achieved that” and development focused - “Optimal and required, essential from my growth and transitioning”. Barriers towards clinical supervision were described by participants as supervision that was “lacking in advice and guidance in career advancement and training”, feelings of judgement - “others judged and belittled my mistakes, giving negative criticisms all the time” and limited time for clinical supervision - “Not fantastic due to increasing workload. There is not sufficient time to do teaching with supervisees.”

**Table 5: Themes Derived for Question 2 from Round 1**

<b>Quality of clinical supervision received and provided</b>	
Positive (clinical)	<ul style="list-style-type: none"> <li>• Availability of structured learning programme</li> </ul> <p>Quote: “Quality of supervision was very good as we get to meet the supervisor once per week and reflect on the week performance plus going through problems faced throughout the week.”</p>
Positive (developmental)	<ul style="list-style-type: none"> <li>• Distinct career advancement plan and path that is mutually agreed upon</li> </ul> <p>Quote: “it has been very thorough and has contributed greatly to my learning and development. a good supervisor makes a difference in ensuring that you do not stagnate and that you are pushed to your fullest potential.”</p>
Positive (emotional)	<ul style="list-style-type: none"> <li>• Able to speak openly and maintain an open understanding and rapport</li> </ul> <p>Quote: “Quality of supervision will be deemed good as 1. supervisor has good knowledge 2. supervisor provides platform for open discussion, support, providing resources”</p>
Positive (administration)	<ul style="list-style-type: none"> <li>• Amount of experience the supervisor has for clinical supervision</li> </ul> <p>Quote: “Some supervisors are better than others, so the quality of clinical supervision is very much dependent on who</p>

	your supervisor is. I've had some supervisors who are very diligent in their teaching and I've learnt something new that I've brought forward into my clinical practice from each teaching session.”
Negative (clinical)	<ul style="list-style-type: none"> <li>• Lack of time allocated</li> <li>• Supervisors lack supervision and clinical learning</li> </ul> <p>Quote: “not fantastic. due to increasing workload, there is not sufficient time to do teaching with supervisees. sometimes, teaching quality has to be compromised as there is only a short timeframe to teach all that is needed.”</p>
Negative (developmental)	<ul style="list-style-type: none"> <li>• Supervisors stopped receiving professional development themselves</li> </ul> <p>Quote: “I feel unsupervised as a clinical supervisor. There is no structure of development as a clinical supervisor visible.”</p>
Negative (emotional)	<ul style="list-style-type: none"> <li>• Personality differences and different learning styles and teaching styles of supervisee and supervisor</li> </ul> <p>Quote: “Depending on the supervisors I had throughout the job, it was different each time. Some have been very encouraging and nurturing, allowing me to make mistakes (in a safe manner) and helping me to rectify. Whereas others judged and belittle my mistakes, giving negative criticisms at all times.”</p>

***Facilitators and barriers of supervising and importance of supervising in the workplace***

Responses from participants were categorized according to the barriers faced by supervisors and supervisees respectively (Table 6). Despite the different number of participants in each group – common themes of lack of time, mismatch of supervisors/supervisees, lack of training and structure for learning were identified. Some quotes that supported the barriers reported by supervisors included “staff with different learning styles, poor understanding or little motivation to improve and staff who are not receptive”, “protected time to develop training framework” and “we can’t get as much teaching as we wish to have”. Supervisees, on the

hand, reported “supervisor being too prescriptive and unreceptive to alternatives”, “not enough time for supervision to take place due to patient load” and “a supervisor may have a different clinical management style, and decides that the recommendations are wrong”.

There were five facilitators listed for providing clinical supervision in the current framework. This was organized under the following themes of clinical, developmental, emotional and administration aspect. These themes reflected that supervisors acknowledged the importance of providing clinical supervision (Table 7 and 8). Responses such as “clinical supervision prevents clinical stagnation”, “clinical supervision maintains clinical standards and ensure patient safety” were documented when asked about importance of clinical supervision. Once again, when probed about the different types of support given and received, four main aspects surrounding clinical, development, emotional and administration were derived (Table 7), indicating that this support was likely developed from the framework indicated from Table 2.

Supervisors and supervisees expressed some potential difficulties and issues that they might face during supervision in the near future (Table 9). These responses were differentiated into points of views from supervisors and supervisees. They were envisioned to be the most pertinent and detrimental to clinical supervision in the workplace. Some of these responses were substantiated by concerns regarding “seniors may not stay in the organization and therefore, good employees will start to leave”, “time constraints” and “inexperience in providing clinical supervision”.

**Table 6: Themes Derived for Question 2 from Round 1**

<b>Challenges of clinical supervision received and provided</b>	
From supervisors	<ul style="list-style-type: none"> <li>• Time</li> <li>• Personality, level of dedication towards learning and learning style of supervisees</li> <li>• Lack of manpower</li> </ul>

	<ul style="list-style-type: none"> <li>• Lack of training</li> <li>• Supervisors have stopped receiving professional development</li> </ul> <p>Quote: “time constraints - work load, urgency of other matters taking over allocated supervision time - lack of clear supervision structure in department - lack of supervision culture (supervisors providing and staff desiring supervision) because of too much work (they rather do work than have supervision) - competence of supervisors providing clinical supervision - lack of ?experienced benefits of supervision (hence, people don't want it) - guidance in providing supervision (who supervises the supervisors?); supervisors themselves not receiving clinical supervision”</p>
From supervisees	<ul style="list-style-type: none"> <li>• Time</li> <li>• Lack of clear structure and framework for learning in the organization and department</li> <li>• Lack of culture for supervision leading to lack of nurturing environment</li> <li>• Having multiple supervisors who have different management styles</li> </ul> <p>Quote: “Lack of time to constantly meet up and touch base with supervisors. Differing management styles. Different thought process. Having one fixed right answer. Lack of latest evidence.”</p>

**Table 7: Themes Derived for Question 2 from Round 1**

<b>Type of support given and received with themes focusing on:</b>	
Clinical aspect	<ul style="list-style-type: none"> <li>• Guided teaching for clinical management and mentoring for complex cases</li> </ul> <p>Quote: “Being able to text or make a phone call when my supervisor is not available. Sit down discussions and reflections on the case. Guided through cases and seeing cases together. Supervisors sorting out case suitability and stepping in when too challenging.”</p>
Developmental aspect	<ul style="list-style-type: none"> <li>• Identifying areas of potential improvement for skill development</li> </ul> <p>Quote: “case management support in a scheduled supervision session - professional learning (skill training) - Vetting social report (for complex cases) and the Medifund applications</p>

	made by the supervisees - ad-hoc case consultation - audit / review their cases - provide on-going feedback - step-in for liaison with the higher management of other agencies, when necessary, to support supervisee's work so as to move the cases forward”
Emotional aspect	<ul style="list-style-type: none"> <li>• Emotional encouragement and support</li> <li>• Supporting as a “friend” with open discussions for non-clinical work</li> </ul> <p>Quote: “I received encouragement and affirmation from my supervisor.”</p>
Administration aspect	<ul style="list-style-type: none"> <li>• Information regarding administrative workflow</li> </ul> <p>Quote: “Demonstration of patient positioning and effective communication with patients and colleagues. Ensure standardisation of patient care and work process. Update changes in workflow and protocols to the rest of the team.”</p>

**Table 8: Themes Derived for Question 3 from Round 1**

<b>Reasons for receiving and providing clinical supervision</b>	
Clinical aspect	<ul style="list-style-type: none"> <li>• Facilitate independence to manage complex caseloads and situations</li> <li>• Ensuring appropriate treatment directions</li> <li>• Promoting self-reflection on clinical skills</li> <li>• Facilitating continued clinical learning</li> </ul> <p>Quote: “To make sure that you are providing the best patient care by providing a second opinion. To familiarize with complex cases so that if you see another case that's similar next time, you would be able to think of similar ways to manage issues. To have someone guide you and touch base with you.”</p>
Developmental aspect	<ul style="list-style-type: none"> <li>• Allows profession to develop, grow and improve</li> <li>• Prevents clinical stagnation</li> <li>• Facilitates transition from academic studying to working and application of knowledge</li> <li>• Ensuring that career path and development is on track</li> </ul> <p>Quote: “to groom the next batch of therapists to be (hopefully) even better than you in the future, for their own development as in individual, and also for the greater benefit of patients.”</p>

Emotional aspect	<ul style="list-style-type: none"> <li>• Prevents burnout, helplessness or isolation</li> </ul> <p>Quote: “guidance and development of staff - new staff don't feel lost and helpless - they understand their work (practice) as a professional - maybe they can go on to provide the same for newer ones later in the profession.”</p>
Administration aspect	<ul style="list-style-type: none"> <li>• Maintains clinical standards</li> <li>• Ensures patient safety</li> </ul> <p>Quote: “the most important one is patient safety as they deserved to be treated with care irrespective of inexperience. Supervisee will produce more consistent work for the patient.”</p>

***Improvements that could be made to assist clinical supervision in the workplace***

A total of eight improvements were identified that could be used to further develop clinical supervision in the workplace and as a result enhance the quality of clinical standards. These improvements fell into two themes: Clinical and administration. Participants described that further education for clinical supervisors or a dedicated supervision unit would improve the current clinical supervision practices. Participants also suggested that increased staffing, reduction in paperwork associated with clinical supervision and protecting time for supervision would also improve the current practice of clinical supervision (Table 10).

**Table 9: Themes Derived for Question 3 from Round 1**

<b>Potential difficulties in clinical supervision</b>	
From supervisors	<ul style="list-style-type: none"> <li>• Allocation of time for supervision</li> <li>• Personality differences between supervisors and supervisees</li> <li>• Lack of qualified supervisors resulting in poor quality of clinical supervision</li> <li>• Differing teaching styles between supervisees and supervisors</li> <li>• Manpower shortage due to poor retention rate of organization</li> </ul> <p>Quote: “Lack of senior practitioners in organization - supervisory ratio is a challenge. Time constraints - always too</p>

	<p>many patients to be seen, time will be taken away from supervision when patient needs become more urgent Different attitudes of younger learners - less proactive and take on less responsibility for their own competency, more reliance on supervisors, less self-driven reflective learning, less time and commitment spent to upgrade themselves, more defensive in terms of receiving feedback - they are a challenge for teachers!"</p>
From supervisees	<ul style="list-style-type: none"> <li>• Lack of supervisory framework, support and culture</li> <li>• Lack of support and direction from the government about clinical supervision</li> <li>• Lack of knowledge about career paths and developmental opportunities</li> </ul> <p>Quote: "Time up-skilling supervisors - not many supervisors know what or how to improve changing mindsets about supervisors/seniors changing seniors/supervisors mindsets facilitating a better feedback rich culture."</p>

**Table 10: Themes Derived for Question 4 from Round 1**

<b>Improvements for the next 2-5 years</b>	
Clinical aspect	<ul style="list-style-type: none"> <li>• Certified qualifications of clinical supervisory courses</li> <li>• Greater variety of clinical supervisory courses available</li> <li>• Development of supervisory unit or framework for learning</li> <li>• More conducive and supportive environment for learning</li> <li>• All staff (including supervisors/seniors) to obtain clinical supervision and learning</li> </ul> <p>Quote: "Ensuring that all supervisors are teaching the same thing. Our supervisors come from a wide range of backgrounds so it is important that training is standardized. Teaching training for new supervisors requires time to upgrade self in being more acquainted to different teaching methods."</p>
Administrative aspect	<ul style="list-style-type: none"> <li>• Increase number of supervisors</li> <li>• Less paperwork/administration involved in clinical supervision</li> <li>• Enforced, dedicated and protected time allocated to clinical supervision</li> </ul>

	Quote: "Ensuring that supervisors are able to make time, as this may be difficult as both supervisor and supervisee maybe working at the opposite end of the roster."
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## **3.2 ROUND 2 OF DELPHI QUESTIONNAIRE**

A total of 55 participants (71.4% of round 1 participants) responded to the round 2 questionnaire. In this round of the study, the researcher sought to explore the percentage agreement within each theme and across the spectrum of themes in round 1 responses.

### **3.2.1 RESULTS OF ROUND TWO OF THE DELPHI QUESTIONNAIRE**

#### ***Framework of clinical supervision: Most important factors determining the framework of clinical supervision***

8 out of 9 themes from round one that were associated with describing the current understanding of, roles and responsibilities, common discussion topics and outcome measures met the level of consensus that was pre-determined at 68%. For example, clinical themes surrounding “providing guidance, knowledge and support for the younger generation of allied health professionals” and developmental themes associated with “developing leaders and more efficient clinicians”. This indicated that most supervisees and supervisors have a common understanding of the roles and responsibilities associated with clinical supervision in the workplace and are providing clinical supervision in a consistent manner.

Themes that did not reach consensus level and were not considered important by supervisors and supervisees were clinical supervision being associated with a period of stress and that the role of the clinical supervisor was administratively driven. This was supported by statements surrounding roles are indicated “to educate the supervisee regarding management of non-clinical aspects of work (61.4%)” and “to coach the supervisee on how to perform administrative duties (52.6%)” respectively.

It was unexpected that only 65.5% of the participants agreed that they discussed about “emotional stressors or their emotional difficulties during their clinical supervision.”

Overall, all these results indicated that a strong consensus was present when investigating the most important factors determining the framework of clinical supervision.

***Facilitator and barriers to learning in the workplace: Most important factors impacting on learning***

Most factors/themes identified in round 1 relating to factors that determined the quality of supervision were in consensus with the participants. The most important three factors indicated were “time allocated by two parties (83.6%)”, “ability to speak openly and maintain an open understanding and rapport with supervisor (81.2%)” and “amount of experience of the supervisor has (80%)”. Only one the theme of “having a distinct and well-considered career advancement plan” did not reach consensus, achieving 56.4% level of agreement (see Figure 3).

Secondly, barriers of receiving clinical supervision were indicated in Figure 3. Lack of time (94.5%), personality differences in teaching and learning styles impacting differing level of dedication towards clinical supervision (87.3%) and lack of training for new supervisors (76.4%) were most important factors impacting on learning. Contrary to that, it was observed that lack of caseloads (30.9%) and lack of clear structure, framework and culture of supervision (56.4%) were the least impactful in learning in the workplace.

All the themes listed (see Figure 3) for the types of support provided to facilitate learning in the workplace were in consensus, with greater than 68% agreement for all the themes derived in round 1.

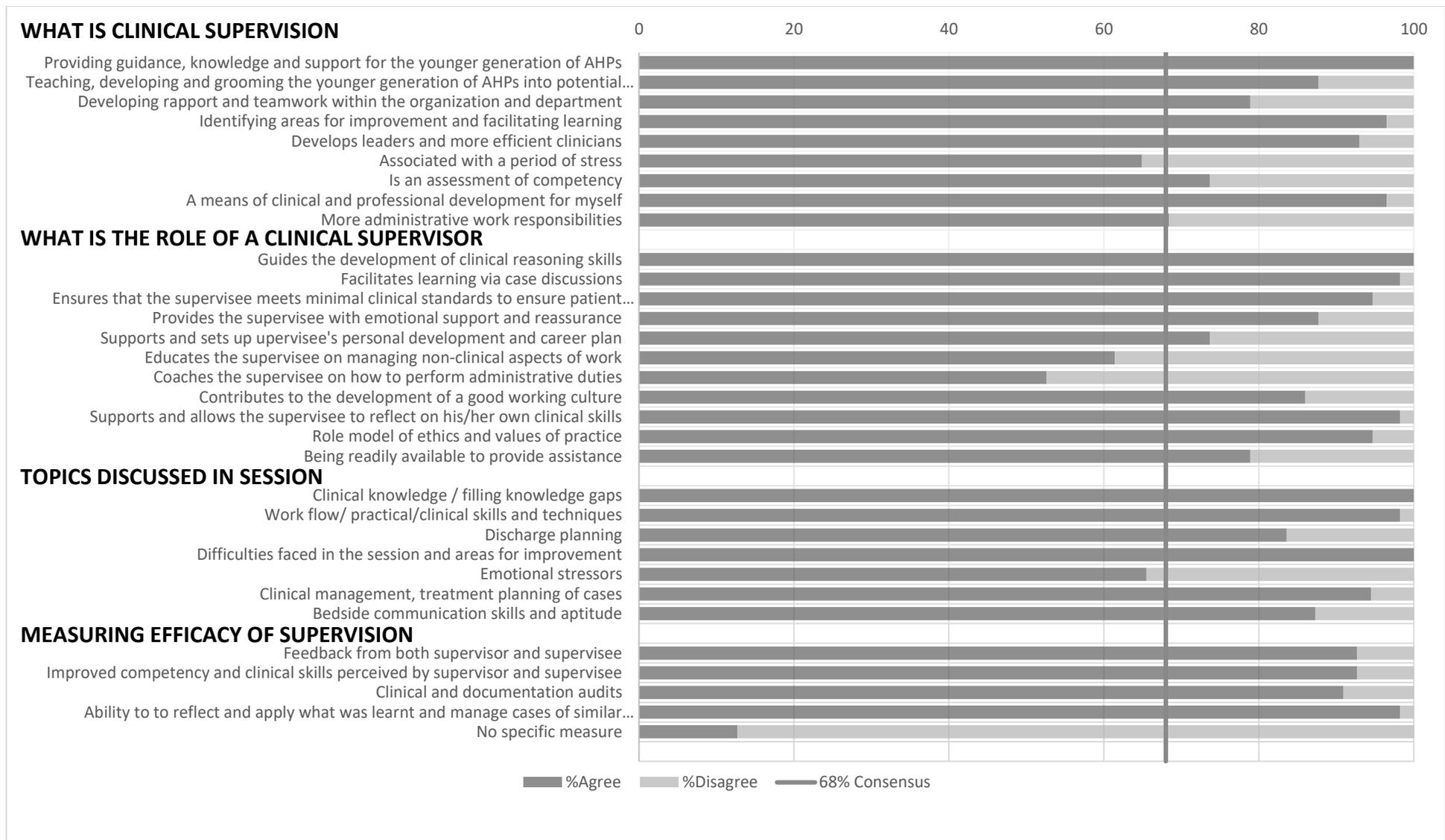
Overall, all these indicated that the facilitators and barriers to learning are heavily dependent on the time allocation from and to both parties, the level of dedication to learning between

both parties and that supervisors play an important role in making learning a successful experience.

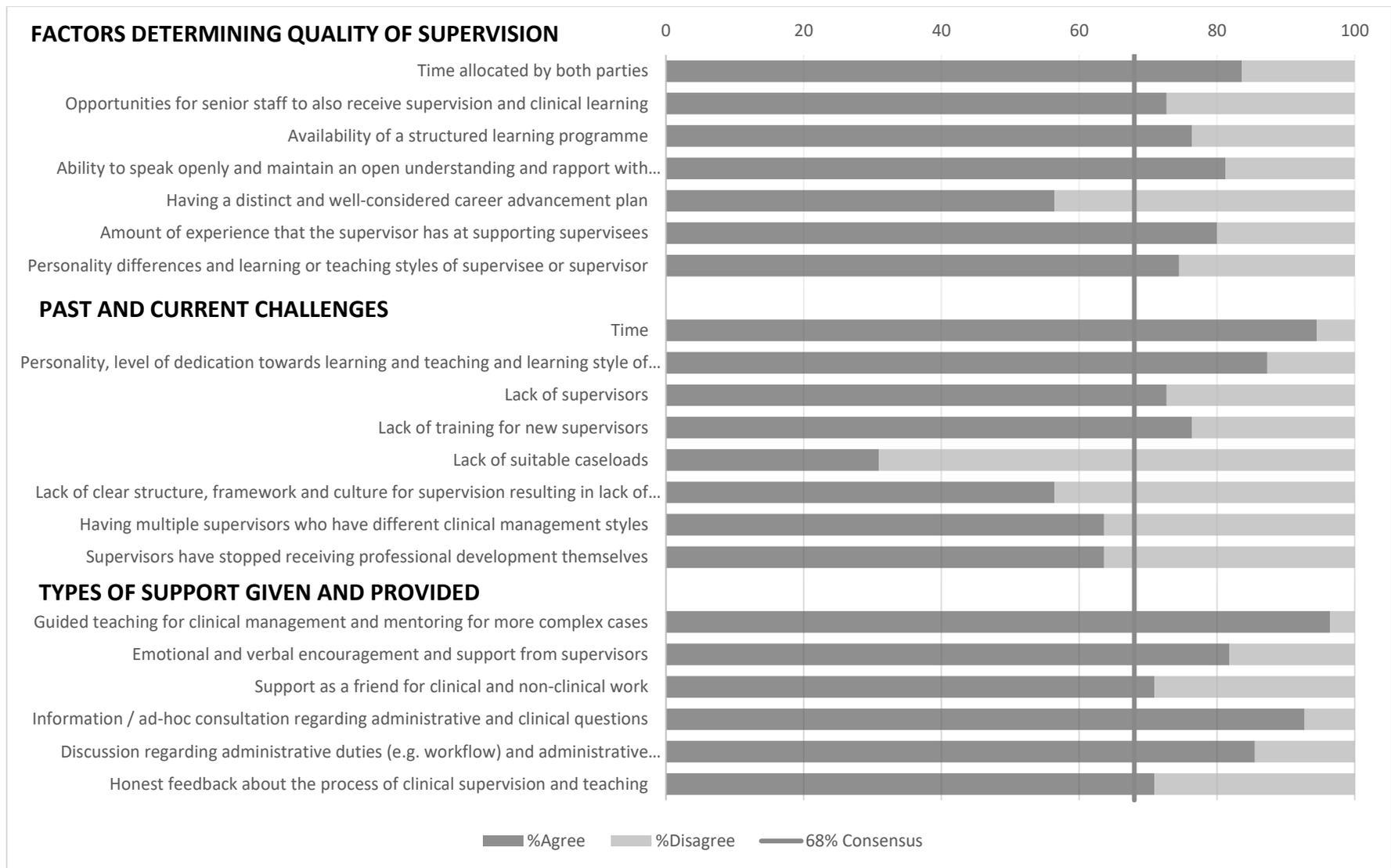
***Facilitators and barriers of supervising and importance of supervision: Most important factors impacting on supervision and most pertinent importance of supervision***

Recognizing potential difficulties and issues is important for implementation of clinical supervision. These potential factors were reflected in Figure 4. It is worthy to note that 100% of the participants agreed for the three most important reasons for implementing clinical supervision. These reasons were to maintain clinical standards and ensure patient safety goals are met, facilitating continued clinical learning and development and allowing the profession to grow as a whole and improve the profession.

The most important barrier that was documented in the questionnaire was the lack of allocation of time for clinical supervision (94.5%) and the lack of qualified supervisors due to poor retention rate (83.6%). Themes that were mentioned regarding “lack of supervisory structure, framework, support and culture in the organization (63.6%)”, “lack of support and direction from the government about clinical supervision for AHPs (58.2%)” and “lack of knowledge about potential career paths and development opportunities established by the management (61.8%)” were not indicated to be important factors impacting on supervision. Once again, the overall results indicated that the amount of time allocated for clinical supervision, the level of dedication to supervision by the supervisors and the workplace environment in staff retention play an important role to make the supervisory experience a success.



**Figure 2: Percentage Consensus for Research Question 1**



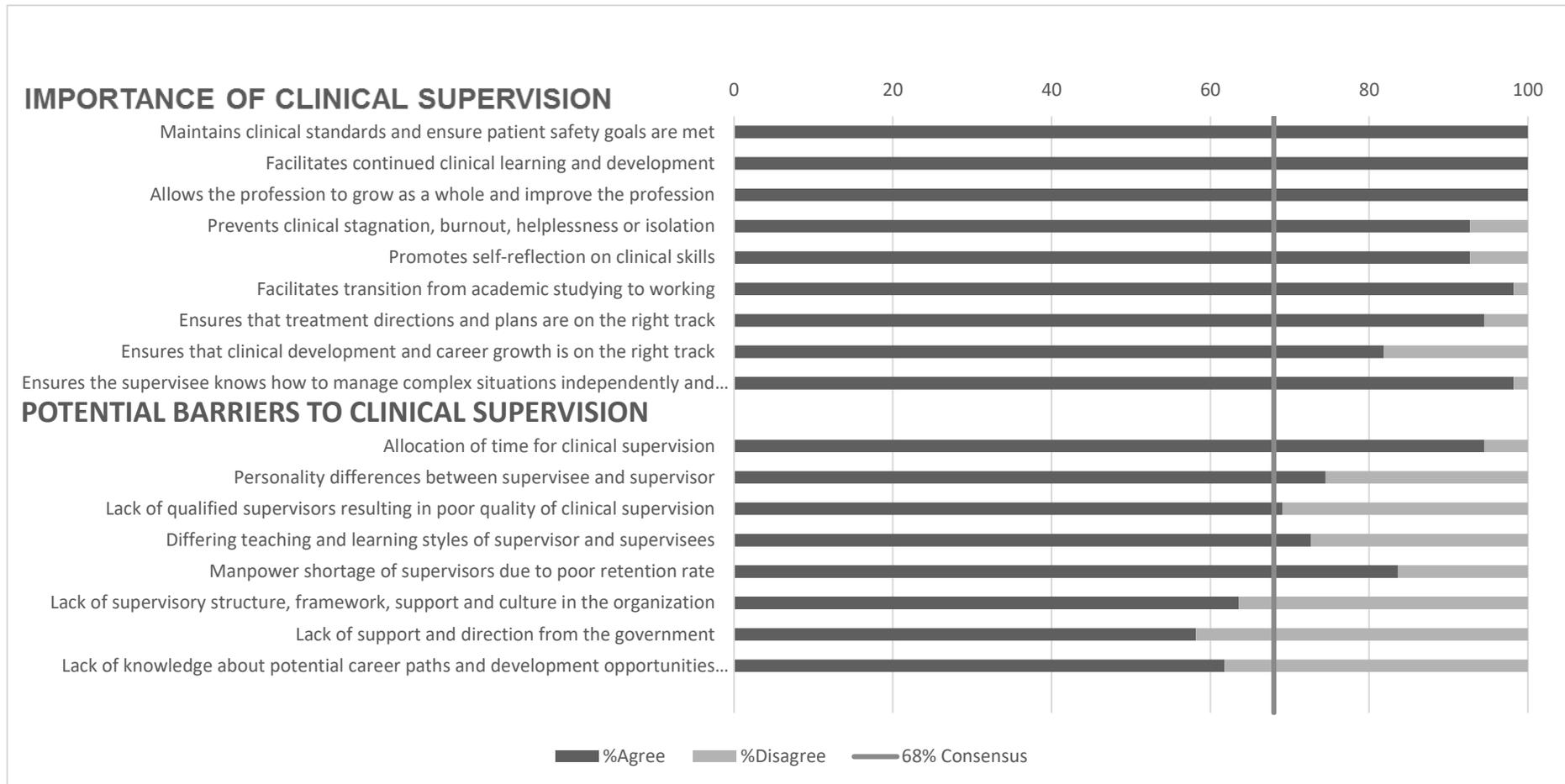
**Figure 3: Percentage Consensus for Research Question 2**

***Improvements that could be made to assist in clinical supervision in the workplace:***

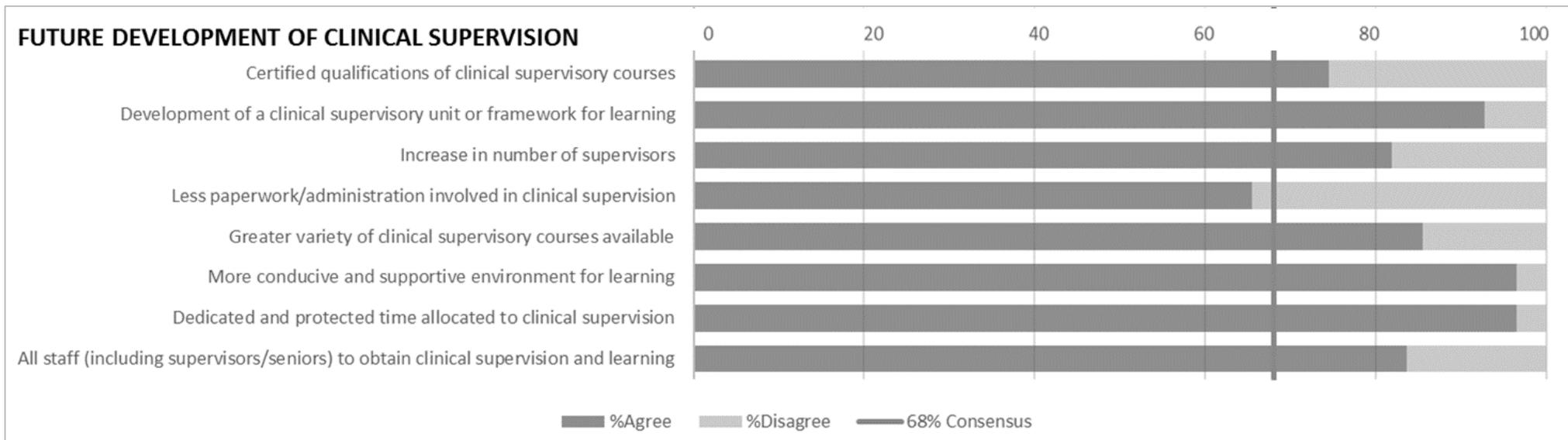
***Most supported improvements in the workplace***

Of the eight improvements to clinical supervision identified in round one, seven were considered important by both supervisors and supervisees (Figure 5). Three improvements receiving above 90% agreement including dedicated, protected and allocated time for clinical supervision (96.4%), having a nurturing environment for learning (96.4%) and development of a clinical supervisory unit (92.7%).

While there were concerns and suggestions surrounding the high administrative aspect to clinical supervision in round one, it was observed that only 65.5% of the participants acknowledged that there was a need to improve the administrative aspect of clinical supervision.



**Figure 4: Percentage Consensus for Research Question 3**



**Figure 5: Percentage Consensus for Research Question 4**

## **4.0 DISCUSSION**

This study explored the current framework of clinical supervision and investigated facilitators and barriers to learning and supervising within the current framework and to find out more about what improvements can be made in the acute hospital for both supervisors and supervisees engaging in clinical supervision. The Delphi technique was employed to identify the themes surrounding these research questions. The first round identified twelve different themes and aspects of clinical supervision that surround the framework and four facilitators and four barriers of clinical supervision. Eight improvements were also generated based on the facilitators and barriers of clinical supervision. The second round determined the level of agreement from round one. The participants identified that 63 of the 77 themes were important for both supervisors and supervisees. The results are discussed below with clinical implications, limitations of the study and recommendations for future research.

### **4.1 THE CURRENT FRAMEWORK FOR CLINICAL SUPERVISION AND OUTCOME MEASURES OF CLINICAL SUPERVISION**

The key themes of the current clinical supervisory framework from round one revolved around clinical, developmental, emotional and organizational aspects. A total of 26 out of 32 themes were identified as contributing to the current workplace understanding and implementation of clinical supervision. These findings were consistent of the frameworks and learning models such as Proctor's model of Clinical Supervision (Dawson, Phillips & Leggat, 2012; Winstanley & White, 2003) where the clinical and developmental aspect indicated the formative function in Proctor's model of Clinical Supervision, the emotional aspect addressing the restorative function and the administration and or organization aspect reflecting the normative function. Other important findings from round one of the study confirmed that

time and personality, supervisory and learning styles were reported to be key factors that impacted on quality of clinical supervision by both supervisors and supervisees.

Current workplace understanding of clinical supervision described providing guidance, knowledge and support to develop the next generation of allied health professionals. The results suggest that staff feel that clinical supervision also assists in identifying areas of improvement and facilitates learning in a safe and non-judgmental environment that help develop the practitioner. This is encouraging on the larger scale as this shows that the supervisors and the supervisees have the similar goals and targets of clinical supervision and this can hopefully assist in attaining a common ground for clinical supervision for both parties. This finding by participants is consistent with Lyth (2000) and Creaner (2014). Both authors reported that clinical supervision is about ensuring the level of professionalism and competency is passed down from one generation of allied health professionals to the next. The roles of a supervisor identified by the participants in the study is also synonymous to the literature (Geller & Foley, 2009).

It has been suggested that clinical supervision is likely associated with the clinical and educational aspects (Geller & Foley, 2009). This can include educating the supervisee on non-clinical and administrative aspects of work was less likely to be part of clinical supervision. These results from the current study agree with the study conducted by Ross (2013) who investigated that there may potentially be more resistance towards clinical supervision if non-clinical and administrative aspects of work are included in the scope of clinical supervision. This can imply also that in a macro level, clinical supervision time should exclude discussion on administrative and non-clinical matters and potentially can indicate that staff members involved in administration or non-clinical duties may not be at the most favorable position to provide clinical supervision. This is in line with the consensus from round two of the

questionnaire revealing that clinical supervision should involve teaching of clinical skills rather than coaching the supervisee to perform administrative duties.

An interesting finding from round one of the study was that emotional stressors were not reported as being frequent topics during clinical supervision sessions. This finding could be related to the results of clinical supervision not being directly associated with an increased level of stress. This contrasts with a study by Pront et al. (2016) who emphasized that emotional aspects of clinical supervision are to be emphasized and focused on as the emotions of the supervisee can determine the progress of learning. The comparative finding could be the result of cultural differences in the current study context conducted in Singapore which is predominantly made up of Asian cultures who tended to be more reserved in conveying emotional stressors compared to Pront et al.'s (2016) study conducted internationally. The finding also suggests there may be a need for supervisors in Singapore to be trained in identifying emotional stressors in their supervisees and act upon these stressors accordingly. This can also imply that supervisors should also be sensitive to their supervisees to achieve optimum outcomes involving both clinical and emotional aspects of clinical supervision (Gonge & Buus, 2011).

Outcome measures to identify efficacy of clinical supervision are in place in this workplace. Efficacy of clinical supervision is measured qualitatively by the ability for the supervisee to manage cases of equal complexity, self-perceptions of improved competency in clinical skills by both supervisees and supervisors and feedback from both parties. Clinical and documentation audit is reported to be the only one quantitative measure used to determine efficacy of clinical supervision.

## **4.2 FACILITATORS TO LEARNING WITHIN THE CURRENT FRAMEWORK OF CLINICAL SUPERVISION**

Identifying key facilitators that contributed to good quality of clinical supervision is also part of ensuring good clinical supervision. These include having good time allocation for both parties, enjoying open communication and good rapport between the two parties and having an experienced supervisor. Bos, Silen and Kaila (2015), Dimitriadou, Papastavrou, Efsthathion and Theodoroy (2015), Pack (2015), and Taylor (2013) concurred with these key findings. It is again therefore seen that major determinants of good clinical supervision includes a healthy dual relationship between the two parties and that clinical supervision involves the intricacy of supervising and good communication with both the supervisor and the supervisee. One factor, however, that was deemed as an outlier, is that having a distinct and well-considered career advancement plan is not a factor determining good clinical supervision. This could once again be similar to the study by Ross (2013) that states that clinical supervision should not be associated with management ability. This can indicate that career advancement plans should not be discussed during clinical supervision, and therefore is not a determining factor for good clinical supervision.

#### **4.3 BARRIERS TO LEARNING WITHIN THE CURRENT FRAMEWORK OF CLINICAL SUPERVISION**

Barriers that impact on learning in the workplace include lack of time allocated and dedicated to clinical supervision, personality differences in teaching and learning styles impacting differing level of dedication towards clinical supervision and lack of training for new supervisors. Previous studies conducted by Kumar, Osborne and Lehmann (2015), Martin, Kumar, Lizarondo and Tyack (2016), Snowdon, Millard and Taylor (2016) agree with this phenomenon. It is widely agreed that time is a huge constraint on learning in the workplace and this study further backs this observation. It is again anticipated that in an acute hospital where workload is predominantly a concern, learning and clinical supervision is often sacrificed to accommodate to targeting the heavy workload. On a practical measure, this can

imply that supervisors may need to prioritise time for clinical supervision, regardless of workload. This move of strict and compulsory time allocation for clinical supervision should also be supported by the necessary line management in order for clinical supervision to be successful. Contradicting learning and supervisory styles and personality have also been mentioned in various studies (Wallace & Cooper, 2015). The study by Wallace and Cooper (2015) suggested that experienced supervisors who are able to be flexible with their supervisory and teaching styles develop better relationship. Therefore, if there was presence of contradictory learning and supervisory styles of which the supervisor and supervisees do not have the ability to be flexible about it, this may result in a negative barrier towards learning in the workplace.

Another key barrier to clinical supervision that is identified include the lack of training for new supervisors. This is reiterated further in Geller and Foley (2009), Lyth (2000), Ross (2013) where the lack of training for new supervisors can lead to lack of confidence and competency within the supervisors which may result in the lack of effective clinical supervision. Furthermore, if the clinical supervisors themselves do not receive adequate training to be good supervisors, these supervisors may not be familiar to adult learning theories and therefore may not educate their supervisees in the most efficient or understanding manner. In order to reduce this barrier, courses held by appropriate and experienced trainers can be held to support new supervisors and educate these new supervisors on adult learning theories.

Several other outliers that were indicated include lack of suitable caseloads, having multiple supervisors with differing styles, lack of a structure or framework to clinical supervision and supervisors themselves not having continued professional development. This somewhat disagrees with previous studies that indicate that a good structure or framework to clinical

supervision is a key factor to clinical supervision (Goorapah, 1997, Lynch & Happell, 2008). Supervisors not receiving continued professional development themselves indicate a career stagnation which potentially may lead to burnout (Goussinsky & Livne, 2016). However, in this study, it has been reported that there were concerns about supervisors lacking of continued professional development, however, consensus was not indicative that it was significant enough to be a barrier for learning.

Supervisors lacking of continued professional development can potentially lead to burnout and therefore, this suggestion can be considered to be necessary and essential to optimise clinical supervision in the workplace.

#### **4.4 FACILITATORS TO SUPERVISION WITHIN CURRENT FRAMEWORK OF CLINICAL SUPERVISION**

Key facilitators to supervision in the workplace include providing emotional support, verbal encouragement and being a source of information with regards to clinical and administrative processes. In addition, providing honest feedback via feedback channels from supervisor to supervisee and vice versa and guided teaching for complex cases were also generated and confirmed as facilitators to supervision in the workplace. This is further reinforced that most participants recognize the importance of clinical supervision. Allied Health Professionals understanding the significance of clinical supervision is an excellent starting point to nurture a positive learning environment. As mentioned in Holmlund et al. (2010), Moked and Drach-Zahavy (2015) and Pront et al. (2016), a positive learning environment that recognizes the significance of clinical supervision will allow more positive outcomes and attitudes towards clinical supervision.

#### **4.5 BARRIERS TO SUPERVISION WITHIN CURRENT FRAMEWORK OF CLINICAL SUPERVISION**

When describing barriers to supervision in the current workplace, the findings from this study are synonymous with Kumar et al. (2015). This suggests that allocation of time and manpower are the most important factors to consider when attempting to overcome potential barriers to clinical supervision. Therefore, it is important for the organization to set aside protected time and to retain manpower to allow effective clinical supervision to happen. Protecting time and providing manpower to support clinical supervision may also cultivate a positive learning environment which will stimulate growth in the next generation of allied health professionals. Unexpectedly, it was observed that a lack of support from the government, lack of knowledge of career paths and a lack of supervisory structure, framework and culture were not indicative of potential barriers for clinical supervision in the current workplace. This finding contradicts the literature which stated that a framework and structure for supervision with knowledge of potential paths for the supervisee's career can assist in making the environment more suitable for learning (Goorapah, 1997, Lynch & Happell, 2008). This may imply that supervisees in the current workplace are likely to concentrate more on gaining supervision for their clinical skills rather than career development. In addition, this finding may also support the positive changes that the government has created by establishing the registration system for allied health professionals, indicating this system is providing sufficient support to these organizations and hospitals.

#### **4.6 IMPROVEMENTS THAT CAN ENHANCE THE CURRENT FRAMEWORK AND IMPROVE QUALITY OF HEALTHCARE STANDARDS**

The majority of the Allied Health Professionals surveyed indicated they would like a more conducive workplace environment for clinical supervision. This is in addition to having more dedicated and allocated time to clinical supervision during working hours. Creating a

dedicated clinical supervisory unit is one of the improvements that was generated and reached consensus. This finding is in line with the nursing literature where dedicated supervisory units are organized for nursing staff to enhance the quality of clinical supervision and promote learning (Nishioka, Coe, Hanita & Moscato, 2014). An interesting finding was that the idea of having lesser administration and paperwork associated with clinical supervision did not reach consensus. This finding contradicts the literature about managing administrative responsibilities associated with clinical supervision (Smith, 2001). Smith (2001) has indicated that clinical supervision is usually associated with being another management tool or a mode of appraisal and that more administrative roles and responsibilities arise with an appraisal or managerial feedback.

However, this finding may be due to the regular intervals that paperwork for clinical supervision is already required as part of the clinical supervision process in Singapore, thereafter, may not be as important for all allied health staff.

#### **4.7 IMPLICATIONS TO THE WORKPLACE**

The direction of clinical supervision that the workplace can move towards can be closely associated with the improvements that majority of the participants have generated and reached consensus for. These include, having dedicated and allocated supervisory time, development of a special clinical supervisory unit focusing on developing talent who are interested in being clinical supervisors and providing courses for all senior staff to participate in continued professional development. Providing further education for clinical supervision, protecting the time for clinical supervision and increasing the number of supervisors available in the workplace will likely result in preventing and reducing burnout for supervisors and nurture a more conducive environment for learning for supervisors and supervisees. In

addition, increased awareness of factors that influence clinical supervision from this study will help senior management understand the current attitudes towards clinical supervision which are on the whole largely positive. It is desirable that with the knowledge of these key facilitators and barriers, senior management will be able to conduct more checks in place to plan for higher retention of staff to assist in clinical supervision. These checks can include having more sessions to discuss about emotional stressors for both supervisors and supervisees and having more informal sessions to understand the current direction of supervision and necessary actions that are required to improve job satisfaction in the workplace. This study can therefore be used as an initial step to improve the overall culture of clinical supervision at the workplace and to develop a well-rounded framework for clinical supervision focusing on all aspects and, more importantly, the emotional aspect of workplace clinical supervision.

#### **4.8 STUDY LIMITATIONS**

The use of the Delphi technique limited the accountability of the responses due to anonymity of the responses (Vernon, 2009). It can be potentially used as a platform for abuse due to the lack of accountability of the identity of the participants. This is reflected in the current study as there are more supervisors (42) than supervisees (23) who participated in the study. Therefore, supervisors provided more responses for the facilitators and barriers of clinical supervision rendered. In addition, it is a feedback-based process, therefore, it may not be objective as per most qualitative research. The researcher also acknowledged that opinions and judgments may differ at different junctures in time (Crowe et al., 2015). Therefore, due to the dynamic nature of the results, substantial evidence has to be collected. Opinions may

also be fairly superficial and subjective and may not constitute a strong analysis to provide an objective view of clinical supervision in the department.

Although 77 participants completed round 1 of the study, only 55 participants completed round 2. The attrition of 22 participants may have reduced the validity of round 2 information. Participant attrition in Delphi-based studies has been reported by Falzarano and Pintozi (2013). They reported concerns regarding poor response rate and high drop-out rate from the few rounds of questionnaires due to "questionnaire fatigue". Bonner and Stewart (2001) also cautioned about similar potential response bias in view of the multiple rounds of questioning, leading to high rate of attrition from each stage of the questionnaire. In this survey, it was noted that there was an attrition rate of 26% from the first round of the survey to the second round of the survey, despite bi-weekly reminders from the researcher to the participants. This attrition rate can be due to questionnaire fatigue or the lack of time allocated during working hours to respond to the survey as most participants performed the survey outside working hours.

A total of 77 participants represented approximately 19% of the total target group. This level of participation could also influence the findings in that people with insightful experience of note did not contribute to responding to the questionnaire. This could be due to the culture in Singapore whereby employees can be less open minded to participating in open-ended questionnaire surveys conducted at due to the apathy towards "additional responsibilities" related to work. In addition, some employees may also feel uncomfortable to be divulging negative comments to the researcher, despite the anonymity that has been emphasized, as they could be concerned that any negative results can place them in "bad light" with the employer. Furthermore, some employees might not perceive that feedback regarding clinical

supervision can potentially be beneficial for the education of future generations of allied health professionals and thus, do not see the necessity for full participation in this survey.

Lastly, the study was conducted in one hospital setting. Although this hospital was a large and varied environment, care should be taken in generalizing these findings to other healthcare contexts.

Nevertheless, the results increase our understanding of the clinical supervision and workplace-based learning. The information reported provides the basis for potential development of frameworks that can be adopted to promote learning in the environment which can have cascading effects on the younger generation of allied health professionals.

#### **4.9 DIRECTIONS FOR FUTURE RESEARCH**

The participant demographics in the current study suggest that future research can look into a larger population with other allied health professionals and in different work place contexts. For example, medical social workers and dieticians. To date, this research study is the first research study conducted in the local hospital and is also likely the first study in Singapore to be conducted to investigate on the clinical supervision in the workplace for allied health professionals. Replication of this study with a wider population of the other hospitals in Singapore to investigate the overall culture of clinical supervision across all the allied health professions, rather than in one single hospital in Singapore can also be encouraged. Even though it is noted that the different hospitals may have a different culture of supervision, it will be beneficial for future research to investigate the framework of clinical supervision in different hospitals and to determine whether these differences impact on the quality of clinical supervision provided. Further research can look into the various frameworks that each hospital has adopted, comparisons of efficacy of facilitators in implementing clinical

supervision and effects of barriers of clinical supervision across the various institutions. Other target areas can include doctors and nurses in the survey as well as long term (>5 years) and short-term effects of clinical supervision in the workplace, with the possibility of a quantitative study with a correlation to retention rate of employees and clinical supervision or correlation of patient satisfaction to clinical supervision (Hall & Cox, 2009).

## 5.0 CONCLUSION

This qualitative study investigated the clinical supervisory framework in a local Singapore hospital. Facilitators and barriers to learning and supervising in the workplace were identified by allied health practitioners. The findings suggest that there is common consensus of what clinical supervision should encompass. The themes surround the clinical, developmental, emotional, administration and or organizational aspects of providing clinical supervision. It discusses the facilitators (for example, guided support and guidance, verbal, emotional and clinical encouragement) that are consistent with the literature. Factors such as difficulties with time allocation, manpower shortage and poor retention rates were also generated as consistent barriers for engaging in clinical supervision. These findings further identify several opportunities for possible improvements that the organization can consider to progress clinical supervision amongst the allied health professionals and also provide reference information for other acute hospital environments to reflect on their own clinical supervision frameworks and processes. Results that have been achieved with two rounds of questionnaires have been encouraging. It has shown the importance of having a common consensus of what clinical supervision entails and obtained a level of understanding between facilitators and barriers to clinical supervision. With the help of this research, this can hopefully stimulate more pedagogical interest within the allied health professionals in Singapore and globally. The promotion of strategies to investigate and reduce barriers to clinical supervision are likely to promote higher clinical standards and better patient outcomes.

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## 7.0 APPENDICES

### APPENDIX A



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**Fax: (65) 6557 2138**  
Singapore Health Services Pte Ltd  
31 Third Hospital Avenue  
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Singapore 168753  
www.singhealth.com.sg  
UEN No. 200002698Z

CIRB Ref: 2016/3030

16 January 2017

Ms Lim Qing Yi Brena  
Department of Rehabilitative Services  
Changi General Hospital

Dear Ms Lim

#### **SINGHEALTH CENTRALISED INSTITUTIONAL REVIEW BOARD (CIRB) APPROVAL**

**Protocol Title: Clinical Learning and Supervision for Allied Health Professionals in Singapore: current framework, facilitators, barriers and the way forward**

We are pleased to inform you that the SingHealth CIRB F has approved the above research project to be conducted in Changi General Hospital.

The documents reviewed are:

- a) CIRB Application Form dated 4 Jan 2017
- b) Research Study Information & Participant Informed Consent Form: Version 5 dated 4 Jan 2017
- c) Questionnaire on Clinical Supervision Round 1
- d) Email Template to Staff: Version 1 dated 12 Nov 2016

The SingHealth CIRB operates in accordance with the ICH/ Singapore Guideline for Good Clinical Practices, and with the applicable regulatory requirement(s).

The approval period is from **16 January 2017 to 15 January 2018**. The reference number for this study is CIRB Ref: 2016/3030. Please use this reference number for all future correspondence.

The following are to be observed upon SingHealth CIRB Approval:

1. No subject should be admitted to the trial before the Health Sciences Authority issues the Clinical Trial Certificate. (only applicable for drug-related studies).
2. The Principal Investigator should ensure that this study is conducted in compliance with the Singapore Guideline for Good Clinical Practice, the ethical guidelines of which are applicable to all studies to be carried out, and to ensure that the study is carried out in accordance to the guidelines and the submitted protocol. The Principal Investigator should meet with his collaborator(s) regularly to assess the progress of the study, and be familiar and comply with all applicable research policies in the Institution.

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Singapore National Eye Centre • SingHealth Polyclinics • Bright Vision Hospital • Sengkang Health

3. No deviation from, or changes of, the protocol should be initiated without prior written SingHealth CIRB approval of an appropriate amendment, except when necessary to eliminate immediate hazards to the subjects or when the change(s) involve(s) only logistical or administrative aspects of the trial (e.g. change of monitor(s), telephone number(s)).
4. Only the approved Participant Information Sheet and Consent Form should be used. It must be signed by each subject prior to enrolling in the study and initiation of any protocol procedures. Two copies of the Informed Consent Form should be signed and dated. Each subject or the subject's legally accepted representative should be given a copy of the signed consent form. The remaining copy should be kept by the PI / medical record.
5. The Principal Investigator should report promptly to the SingHealth CIRB of:
  - i. Deviations from, or changes to the protocol including those made to eliminate immediate hazards to the trial subjects.
  - ii. Changes increasing the risk to subjects and/or affecting significantly the conduct of the trial.
  - iii. All serious adverse events (SAEs) and adverse drug reaction (ADRs) that are both serious and unexpected.
  - iv. New information that may affect adversely the safety of the subjects or the conduct of the trial.
  - v. Completion of the study.
6. Study Status Report should be submitted to the SingHealth CIRB for the following:
  - i. Annual review: Status of the study should be reported to the SingHealth CIRB at least annually using the Study Status Report.
  - ii. Study renewal: the Study Status Report is to be submitted at least two months prior to the expiry of the approval period. A valid SingHealth CIRB renewal is essential, as any research performed outside of an approved time frame is not legal, and thus not covered by the hospital's research insurance in case of unexpected adverse reactions.
  - iii. Study completion or termination: the Final Report is to be submitted within three months of study completion or termination.

Yours sincerely,

Dr Aloysius Ho Yew Leng  
Chairman  
SingHealth Centralised Institutional Review Board F

cc: Institution Representative, CGH  
Head, Department of Rehabilitative Services, CGH

*This application is approved online. No signature is required.*

## APPENDIX B

Re: Invitation to participate in Study for Clinical Learning and Supervision for AHPs - Google Chrome

Secure | [https://www.hmail.sg/owa/?ae=Item&a=Open&t=IPM.Note&id=RgAAAADvctrpSIXWTign3LGIIT50BwDRlo5vL.CcpQq%2boGSHuXyAAAACaEAAAnNsaQzHwATjyUj7jGDRHSAABMstMqAAAA&ospid=1504250979167\\_80...](https://www.hmail.sg/owa/?ae=Item&a=Open&t=IPM.Note&id=RgAAAADvctrpSIXWTign3LGIIT50BwDRlo5vL.CcpQq%2boGSHuXyAAAACaEAAAnNsaQzHwATjyUj7jGDRHSAABMstMqAAAA&ospid=1504250979167_80...)

Reply Reply All Forward

Re: Invitation to participate in Study for Clinical Learning and Supervision for AHPs

Friday, February 10, 2017 11:13 AM

**Date:** Wednesday, 8 February 2017 at 2:20 PM  
**To:** CGH-Physiotherapists <Physiotherapists@cgh1.com.sg>, CGH-Occupational Therapists <Occupational\_Therapists@cgh1.com.sg>, CGH-Speech Therapists <Speech\_Therapists@cgh1.com.sg>, CGH-Radiographer <Radiographer@cgh.com.sg>, CGH-Medical Social Workers <Medical\_Social\_Workers@cgh1.com.sg>  
**Cc:** "Elaine Gomez (CGH)" <elaine\_gomez@cgh.com.sg>, "Goh Soon Noi (CGH)" <soon\_noi\_goh@cgh.com.sg>, Gabriel Leong <gabriel\_leong@cgh.com.sg>  
**Subject:** Invitation to participate in Study for Clinical Learning and Supervision for AHPs

Dear colleague,

I am Brena, a speech therapist currently working in Rehabilitative Services. I will be doing up a study on Clinical Learning and Supervision and the current framework amongst Allied Health Professionals.

**Aims of study:**

- (1) To look into the current framework of supervision across the Allied Health Professionals
- (2) Investigate facilitators and barriers to clinical supervision Allied Health Professionals
- (3) Help us look into any improvements that we can do in terms of enhancing Clinical Learning and Supervision.

**What is required:**  
The study will involve participants answering a series of questionnaires online targeting the research aims (as mentioned above). It is expected that up to 3 or 4 rounds of surveys will be presented.

**Who can participate:**  
**YOU! (any allied health professional - PT, OT, ST, Radiographer, MSW)**

**All details are kept confidential and anonymous.**

Kindly reply to this email if you are keen to participate or if you will want to find out more about the study.

Your participation is **greatly** appreciated!

Thank you!  
Brena Lim  
Senior ST

## APPENDIX C

### CGH Questionnaire Round 1 FOR SUPERVISORS

**Question 1: Please indicate your gender.**

	Female
	Male

**Question 2: What is your age range?**

	20-30 years old
	30-40 years old
	40-50 years old
	>50 years old

**Question 3: What is your profession?**

	Medical social worker
	Occupational Therapist
	Physiotherapist
	Radiographer
	Speech Therapist
	Others; please specify

**Question 4: How many years have you worked in this organization?**

	0 to 1 year
	1 to 3 years
	3 to 5 years
	5 to 8 years
	>8 years

**Question 5: Do you have experience supervising your colleague?**

	Yes
	No

**Question 6: How many years have you participated in supervision as a supervisor?**

	<1 year
	1 to 3 years
	>3 years

**Question 7: How many years have you participated in supervision as a supervisee?**

	0 to 1 year
	1 to 3 years
	>3 years

**Question 8: What does clinical supervision mean to you?**

**Question 9: What do you think the roles of a supervisor are?**

**Question 10: Thinking about your experience as a supervisor, how do you feel about the quality of clinical supervision that you have provided during your time working in the hospital?**

**Question 11: What are the various modes of clinical supervision you have experienced or taken part in or provided to others?**

**Question 12: How do you currently measure efficacy of clinical supervision?**

**Question 13: Please describe any past and current issues or challenges you face when providing clinical supervision.**

**Question 14: Describe the type of support you provide as a clinical supervisor.**

**Question 15: Please provide reasons why it is important for you to provide clinical supervision.**

**Question 16: Describe how a typical clinical supervision experience is organized.**

**Question 17: How do you prepare for a typical clinical supervision experience?**

**Question 18: Describe what a typical clinical supervision environment is for you. You may wish to consider where you meet, how often you meet, the length of each supervision experience.**

**Question 19: What are the topics you have discussed or may discuss during a typical clinical supervision experience?**

**Question 20: Looking forward, what do you think are the potential issues and difficulties that you may face when it comes to provision or receiving clinical supervision?**

**Thank you for your kind participation in the survey.**

**CGH Questionnaire Round 1 FOR SUPERVISEES**

**Question 1: Please indicate your gender.**

	Female
	Male

**Question 2: What is your age range?**

	20-30 years old
	30-40 years old
	40-50 years old
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**Question 3: What is your profession?**

	Medical social worker
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	Radiographer
	Speech Therapist
	Others; please specify

**Question 4: How many years have you worked in this organization?**

	0 to 1 year
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	5 to 8 years
	>8 years

**Question 5: Do you have experience supervising your colleague?**

	Yes
	No

**Question 7: How many years have you participated in supervision as a supervisee?**

	0 to 1 year
	1 to 3 years
	>3 years

**Question 8: What does clinical supervision mean to you?**

**Question 9: What do you think the roles of a supervisor are?**

**Question 10: Reflecting on your experience as a supervisee, how do you feel about the quality of clinical supervision that you have experienced during your time working in the hospital?**

**Question 11: What are the various modes of clinical supervision you have experienced or taken part in or provided to others?**

**Question 12: How do you currently measure efficacy of clinical supervision?**

**Question 13: Please describe any past and current issues or challenges you face when receiving clinical supervision.**

**Question 14: Describe the type of support you receive as a supervisee.**

**Question 15: Please provide reasons why it is important for you to receive clinical supervision.**

**Question 16: Describe how a typical clinical supervision experience is organized.**

**Question 17: How do you prepare for a typical clinical supervision experience?**

**Question 18: Describe what a typical clinical supervision environment is for you. You may wish to consider where you meet, how often you meet, the length of each supervision experience.**

**Question 19: What are the topics you have discussed or may discuss during a typical clinical supervision experience?**

**Question 20: Looking forward, what do you think are the potential issues and difficulties that you may face when it comes to provision or receiving clinical supervision?**

**Thank you for your kind participation in the survey.**

## **APPENDIX D**

### **CGH Questionnaire Round 2**

Each of the following questions utilized a 5 point Likert response scale with the options of “Strongly Disagree”, “Somewhat Disagree”, “Neutral”, “Somewhat Agree” and “Strongly Agree”.

**Question 1: Please indicate your level of agreement/disagreement with each statement.**

**“To me, clinical supervision means...”**

- Providing guidance, knowledge and support for the younger generation of AHPs
- Teaching, developing and grooming the younger generation of AHPs into potential clinical and administrative roles
- Developing rapport and teamwork within the organization and department
- Assisting in identifying areas for improvement and facilitating learning in a non-judgemental and relaxed manner
- Develops a next batch of leaders and more efficient clinicians
- Associated with a period of stress
- Is an assessment of competency
- A means of clinical and professional development for myself
- More administrative work responsibilities including paperwork

**Question 2: Please indicate the level of agreement/disagreement with each statement.**

**"What is the role of a clinical supervisor?"**

- Guides the development of clinical reasoning skills
- Facilitates learning via case discussions
- Ensures that the supervisee meets minimal clinical standards to ensure patient safety
- Provides the supervisee with emotional support and reassurance
- Supports and assists in setting up the supervisee's personal development and career plan
- Educates the supervisee on managing non-clinical aspects of work
- Coaches the supervisee on how to perform administrative duties
- Contributes to the development of a good working culture
- Supports and allows the supervisee to reflect on his/her own clinical skills
- Role model of ethics and values of practice
- Being readily available to provide assistance (or being a helpdesk)

**Question 3: The following topics may be talked about during clinical supervision sessions. Please indicate your level of agreement/disagreement on whether you have discussed each topic in clinical supervision sessions.**

- Clinical knowledge / filling knowledge gaps
- Work flow/ practical/clinical skills and techniques
- Discharge planning
- Difficulties faced in the session and areas for improvement
- Emotional stressors
- Clinical management, treatment planning of cases
- Bedside communication skills and aptitude

**Question 4: The following statements relate to current methods of measuring efficacy of clinical supervision.**

**Please indicate your level of agreement/disagreement about each statement currently being practised in your setting.**

- Feedback from both supervisor and supervisee
- Improved competency and clinical skills perceived by supervisor and supervisee
- Clinical and documentation audits
- Whether supervisee is able to reflect and apply what was learnt and covered earlier into future cases and manage cases of similar complexity that require similar clinical reasoning
- No specific measure

**Question 5: Please indicate the level of agreement/disagreement with each factor.**

**The quality of the clinical supervision in this hospital is determined by:**

- Time allocated by both supervisee/s and supervisor/s
- Opportunities for senior staff to also receive supervision and clinical learning
- Availability of a structured learning programme for the developing of clinical skills
- Ability to speak openly and maintain an open understanding and rapport with supervisor
- Having a distinct and well-considered career advancement plan that is agreed upon by supervisor and supervisee
- Amount of experience that the supervisor has at supporting supervisees
- Personality differences and learning or teaching styles of supervisee or supervisor

**Question 6: These statements relate to past and current challenges reported for clinical supervision.**

**Please indicate your level of agreement/disagreement with each statement.**

- Time
- Personality, level of dedication towards learning and teaching and learning style of supervisee / supervisor
- Lack of supervisors
- Lack of training for new supervisors
- Lack of suitable caseloads
- Lack of clear structure, framework and culture for supervision in the organisation and department resulting in a lack of nurturing environment
- Having multiple supervisors who have different clinical management styles
- Supervisors have stopped receiving professional development themselves

**Question 7: Please indicate the level of agreement/disagreement with each type of support. I have received or provided the following form of support.**

- Guided teaching for clinical management and mentoring for more complex cases
- Emotional and verbal encouragement and support from supervisors
- Support as a friend for clinical and non-clinical work with open and non-judgmental discussions for clinical and non-clinical work
- Information / ad-hoc consultation regarding administrative and clinical questions
- Discussion regarding administrative duties (e.g. workflow) and administrative protocols to ensure everyday ongoing administrative duties are covered
- Honest feedback about the process of clinical supervision and teaching

**Question 8: Please indicate your level of agreement/disagreement with each statement. "Clinical supervision is important because it.."**

- Maintains clinical standards and ensure patient safety goals are met
- Facilitates continued clinical learning and development
- Allows the profession to grow as a whole and improve the profession
- Prevents clinical stagnation, burnout, helplessness or isolation
- Promotes self-reflection on clinical skills
- Facilitates transition from academic studying to working and application of theoretical knowledge into clinical experience
- Ensures that treatment directions and plans are on the right track
- Ensures that clinical development and career growth is on the right track
- Ensures the supervisee that should similar complex situations appear, supervisee will be able to know how to manage and handle it independently and competently

**Question 9: These statements relate to future/potential barriers to the implementation of clinical supervision.**

**Please indicate your level of agreement/disagreement with each statement based on your experience.**

- Allocation of time for clinical supervision
- Personality differences between supervisee and supervisor
- Lack of qualified supervisors resulting in poor quality of clinical supervision
- Differing teaching and learning styles of supervisor and supervisees
- Manpower shortage of supervisors due to poor retention rate
- Lack of supervisory structure, framework, support and culture in the organization
- Lack of support and direction from the government about clinical supervision for professionals
- Lack of knowledge about potential career paths and development opportunities established by the management

**Question 10: Thinking about the development of clinical supervision over the next 2-5 years, please indicate the level of agreement/disagreement with each development.**

- Certified qualifications of clinical supervisory courses
- Development of a clinical supervisory unit or framework for learning
- Increase in number of supervisors
- Less paperwork/administration involved in clinical supervision
- Greater variety of clinical supervisory courses available
- More conducive and supportive environment for learning
- Dedicated and protected time allocated to clinical supervision
- All staff (including supervisors/seniors) to obtain clinical supervision and learning