RESEARCH PROPOSAL

ASSESSMENT OF PATIENT AND OCCUPATIONAL SAFETY CULTURE IN SEBERANG PERAI CLUSTER HOSPITALS

## 1.0 STUDY BACKGROUND & LITERATURE REVIEW

In recent years, there has been increasing discussion about safety culture in the healthcare sector. A well-known definition of safety culture by The Advisory Committee on the Safety of Nuclear Installations which can be adopted in healthcare; **safety culture** of an organization is the **product of individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of an organization’s health and safety management.** Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures.1

The other two important definitions in this study are patient safety and occupational safety. WHO (2010) defined **patient safety** as the **absence of preventable harm to a patient during the process of health care and reduction of risk of unnecessary harm associated with health care to an acceptable minimum.** An acceptable minimum refers to the collective notions of given current knowledge, resources available and the context in which care was delivered weighed against the risk of non-treatment or other treatment.2 While the definition by ILO regarding **occupational health** is **the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people and people to their jobs.**3

Although safety culture has been accentuated and been discussed in depth among those who concerned, publications in safety culture often focuses more on patient safety culture issues. Several studies in different countries have been conducted to measure patient safety culture in hospitals. One validated and well-established instrument developed by Sorra & Nieva to measure patient safety culture is the “Hospital Survey on Patient Safety Culture” (HSPSC).4 It has been used for surveys conducted in the United States, Norway, the Netherlands, Turkey, Iran, China, Taiwan, and Japan.5-11 Even in Malaysia, there was a study using this questionnaire in Malay Version by L.H. Ismail & J. Yunus.12

However, in the context of a holistic safety culture, as defined above, there was minimal discussion on the occupational safety of health care professionals. Some approaches attempted to assess specific outcomes from insufficient occupational health in the hospital staff. All these analyses focused one professional group only, either nurses13-17 or physicians.18-22 Results for both were similar, and stress, fatigue, and burnout symptoms were found to be associated with higher rates of occupational injuries and higher rates of patient-related adverse events.

Overall, there are only few studies that consider patient safety culture (PSC) and occupational safety culture (OSC) together. Initial explorations were done by the research group of Hoffman and Mark, who applied an adapted questionnaire for safety culture in industrial sector to hospital nurses in the United States.23-24 They found that safety culture moderated work conditions, as well as occupational injuries and patient-related adverse events. Another survey among American nurses by Taylor et al.supports these findings, showing that a poor safety culture was associated with injuries to both nurses and patients.25 Study by Halbesleben et al., found that nurses with symptoms of burnout were more likely to have a negative perception of patient safety.26 There was a study published in Sweden investigated the relationship between patient safety climate and occupational safety climate in health care. The study assessed patient safety climate and occupational safety climate with two different questionnaires, and it showed a strong positive relationship between both. The authors concluded that units with a positive patient safety climate are also likely to have a positive occupational safety climate.27 Up to this date, there are minimal studies assessing both patient safety and occupational safety in one common instrument.

## 2.0 PROBLEM STATEMENT & STUDY JUSTIFICATION

As mentioned earlier, holistic safety culture comprises both patient safety and occupational safety. The aim in hospital is to provide patients with the safest possible care and staff to work in the safest and most conducive workplace as possible. Therefore, Ministry of Health specifically under Medical Development Division prioritize safety and quality in the service and facilities as utmost. By empowering and strengthening units which are the backbones in executing and managing the quality and initiatives such as quality unit and occupational safety unit in every public hospital, this is the major step in ensuring the execution, monitoring, and sustainability of the programmes.

Up to this date, there are several safety program and initiatives under Medical Care Quality Section already been implemented in hospitals. For instances, Patient Safety Council was set up in 2003 by decree of the Malaysian Cabinet to achieve safe Malaysian health care system and since 2013, Malaysian Patient Safety Goals has been implemented, the trending data was available to be monitored by the stake holders. Since its implementation, Malaysia has seen an incredible outcome that was unexpected and beyond the initial designated objectives. The MPSG has actualized significant impact in promoting and highlighting the importance of patient safety in this country. Recently, MOH has introduced new Malaysian Patient Safety Goals 2.0 starting January 2022. The new MPSG 2.0 has integrated the World Health Organization (WHO) Global Patient Safety Challenges including hand hygiene compliance, surgical safety, and prevention of medication error. This inclusion is vital following the launch of the Global Patient Safety Action Plan 2021‐2030 by Dr. Tedros Adhanom Ghebreyesus in August 2021. The Director‐General of the WHO has included Global Patient Safety Challenges as one of the strategies to eliminate avoidable harm in healthcare.

In the meantime, the expansion and development of occupational safety is quite remarkable. There was a directive letter from Director General Ministry of Health in 2016 regarding establishment occupational health and safety unit in every MOH hospital. This milestone is crucial in determining initial phase of structured ways and organized method addressing occupational health issues in hospital setting. The guideline to strengthen Safety and Health Committee in every hospital is also available in MOH website. Up to this date, Occupational Safety & Health (OSH) Unit in Medical Division MOH which specifically coordinating OSH unit in all MOH hospital has come out with action plan encompasses 14 programmes to strengthen function and empower the OSH unit in managing occupational safety and health aspect in hospital.

However, until now there is no specific tool to assess the effectiveness of the programmes from the patient safety and occupational safety culture view based on the staff perspectives. It is important to know the baseline and how far the outcome has been achieved as well as to assess how the staff perceived the environment and culture they are working after all the program and initiatives been implemented.

Therefore, this study will be conducted to validate an integrated patient safety and occupational questionnaire by considering inputs explored among healthcare professional in Malaysia public hospital setting and assess staff perception of both safety culture. It is crucial to have our own instrument fitting our healthcare setting so that the assessment is accurate and reflecting the reality on the ground. Hopefully, the intervention and strategies will more definitive not just empirical.

## 3.0 RESEARCH OBJECTIVES

3.1 General Objective

To assess the level of safety culture (patient safety & occupational safety) among healthcare professionals in public hospitals

3.2 Specific Objective

3.2.1 To assess perceived patient safety culture and occupational safety culture among healthcare professionals in public hospitals

3.2.2 To assess knowledge and competencies related to patient safety and occupational safety aspect among healthcare professionals in public hospitals

3.2.3 To determine association between healthcare professionals’ perception of working conditions, patient safety and occupational safety culture

3.2.4 To translate and validate integrated patient safety and occupational safety questionnaire into Malay version

3.2.5 To explore staff perception on associated factors contributing to patient and occupational safety culture

## 4.0 SCOPE OF STUDY & THEORETICAL FRAMEWORK

The scope of this study focuses on both aspects of patient safety and occupational safety among all clinical staff (doctors, nurses, and assistant medical officer) working in public hospitals.

**Level of safety culture**

Sociodemographic

Patient safety culture

23 dimensions of patient safety culture & occupational safety culture

Occupational safety culture

Dependent variables

Independendant variables

## 5.0 IMPACT AND CONTRIBUTION OF PROPOSED RESEARCH IN IMPROVING THE QUALITY OF PUBLIC SERVICE DELIVERY AND THE DEVELOPMENT OF THE COUNTRY

5.1 Identify problems or areas for improvement and raise awareness of safety culture.

Assessment of safety culture will provide a basic understanding of staff and managers perceptions and attitudes towards patient & occupational safety. Organizations can identify the problematic areas that contributes to difficulty in sustaining safety culture. These issues can provide material for further analysis to determine the root cause and can be useful in generating improvement ideas from staffs directly involved in the issue. Assessing patient & occupational safety culture indirectly raise awareness about the role of culture in promoting safer environment in hospital. Assessment of safety culture can function as a mean of communication that focus on cultural as priorities and establish a common vocabulary and set of goals.

5.2 Evaluate patient safety & occupational safety programs or intervention and tracking change overtime.

Changes in safety culture can be used to demonstrate the effectiveness of programs and interventions for patient safety & occupational safety. Cultural changes are considered as an “outcome measure” in this context, usually in conjunction with more direct patient safety measures such as error rates and clinical outcomes while occupational safety dealing with number and severity of accident and incident at workplace. When a baseline culture measure is taken before a safety intervention is performed with follow-up measure following the ongoing intervention, the assessments of safety culture can provide a way to track cultural transformation progress over time. Depending on the program or intervention under evaluation, the scale of these evaluations and the frequency with which they are conducted will differ. In an organization where there are ongoing safety improvement programs, periodic safety culture assessment can be used to refine changes and can become part of organizational learning and continuous improvement process.

5.3 Conducting internal and external benchmarking

Safety culture assessment can be used to compare units within an organization or to examine differences between organizations. Internal benchmarking can be developed when a culture assessment tool is used in various departments and clinical areas in of an organization. Commonly, the unit manager will compare the data of their unit with the data for the entire organization. External benchmarking is useful to compare between different organizations. These data can be used either by healthcare consumers to choose healthcare delivery organizations and can also be used by quality improvement and competitor analysis efforts.

5.4 To provide translated (Malay version) and validated integrated patient and occupational safety questionnaire which suitable and reflective to our public hospital setting in Malaysia. This validated questionnaire can be used to measure baseline or tracking culture over time and input which will be explored during the study from the interview will be included in the questionnaire.

## 6.0 METHODOLOGY

This study will be cross-sectional study conducted in 135 public hospitals with mixed-method approach comprising four steps.

Step 1: Translation and adaptation process. The process used for the translation and adaptation will be based on "Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures" which proposes 5 steps: translation, synthesis, back translation, committee evaluation and the application of questionnaire (pre-test) (Beaton et al, 2000).

Step 2: Contextualization and assessment of the questionnaires face validity (interview by meeting physically or video conference). Participants will be selected using convenience sampling.

Step 3: Construct validity, internal consistency, and stability of the questionnaires

Step 4: Distribute questionnaires to all public hospitals (survey).

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