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Enhancing the Professional Caring Behaviour of Nurses: Module development protocol

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Abstract
Positive patient outcomes are greatly enhanced by compassionate nursing care. This study protocol describes the development of a caring module by adopting the ADDIE instructional model to address identified gaps and promote caring behaviour among nurses. The module will be designed in three phases with mixed-method design and purposive sampling that includes nurses, care recipients, practitioners, and experts from comparable centres to ensure the content's relevance and effectiveness. By addressing obstacles to caring behaviour, the module has the potential to be an invaluable tool for nursing professionals' professional growth, contribute to positive patient outcomes, and promote high-quality care delivery.

Keywords: Caring; Nurses; Nursing practice; Professional nurse

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1.0 Introduction

Global difficulties and occupational stress may cause nurses to communicate therapeutically and with patients in an ineffective and caring manner (Sarafis et al., 2016). Furthermore, the issue is made more complex by the differences in how nurses and care recipients see each other (Drahošová & Jarošová, 2016; Calong & Soriano, 2018). By aligning efforts to scrutinize and address caring issues with the Ministry of Health's mission and values, healthcare organizations can work towards improving the overall quality of nursing care, enhancing patient satisfaction, and upholding the integrity of the nursing profession.

Caring is a skill that can be learned and developed, particularly within the nursing profession. Educational interventions are identified as effective means to assist new nurses in cultivating compassion to enhance patient satisfaction and the quality of care provided (Thomas et al., 2018; Watson, 2019). The growing interest of scholars exploring caring issues is prominent globally, but there needs to be more evidence in the local context. Applying the analysis, design, development, implementation, and evaluation (ADDIE) instructional model in producing the caring module sets the premises of instructional design that can address the national caring issue. The module is parallel to the Malaysia Ministry of Health's vision of embracing the growth of equitable and accessible health facilities that are consistent with the global paradigm in environmental health, health/medical technologies, and changes in diseases. The study

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recognizes the critical importance of addressing caring issues among nurses to ensure high-quality nursing care and aligns its efforts with national and global health goals. Our study objectives include:

- To explore the nurses' caring behaviour in their professional nursing practice from various perspectives (Phase 1).
- To develop and validate the Caring Module to enhance the nurses' caring behaviour according to the ADDIE Model (Phase 2).
- To investigate the effectiveness of the Caring Module to nurses (Phase 3).

Empowering nurses with caring knowledge and improving their behaviour is vital in ensuring high-quality nursing care.

2.0 Literature Review

Leinenger (1988) splits the common sense of caring from professional caring and identifies professional caring as "those cognitive and culturally learned behaviours, techniques, processes, or patterns that enable or help an individual, family, or community to improve or maintain a favourable healthy condition or lifeway". The ideology of Watson (1988) about Human Caring defines caring as "the moral ideal of nursing whereby the end is protection, enhancement, and preservation of human dignity that involves values, a will and a commitment to care, knowledge, caring actions, and consequences. She stresses the humanistic aspects of nursing that are interlaced with scientific nursing knowledge and practice. Ten Carative factors enable healing, honour, and wholeness and contribute to the evolution of humanity. The definitions of all Caritas processes were found to be more reliable in the Caritas processes developed by Watson and can be used to promote and enhance the nurse-patient caring occasion (Wei & Watson, 2018).

2.1 Measuring Nurses' Caring Behavior

Caring may sound non-figurative and complex in manner. The assessment and measurement of human caring are complex and dynamic phenomena (Watson et al., 2019). However, scholars attempted to assure the feasibility of caring measurement in the research of caring with the development of Caring Behavior Inventory (CBI) (Wolf, 1986), Caring Behaviors Assessment (CBA) (Cronin & Harrison, 1988), Caring Behavior Inventory (CBI-24) (Wu et al., 2006), and Caring Nurse-Patient Interactions Scale (CNPI-70; CNPI-23) by Cossette et al., (2005). The continuous vagueness and uncertainty in the caring understanding, depiction, relevance, and significance to professional nursing practice have resulted in substantive and evolving knowledge of caring in nursing (Levya et al., 2015). The qualitative approach was applied in numerous global investigations to examine nurses' caring behaviour from multiple perspectives, including nurses, clients/patients, and families. Strategies including phenomenological–hermeneutic approach, written narrative, interviews, observations and focus group discussion were identified in past studies to thoroughly explore and explain the nature of caring, interpretation, and views on nurses' caring behaviour.

2.2 Perception of Nurses' Caring Behavior

Caring was perceived as person-centeredness, safeguarding the patient's best interests and nursing interventions, and contextually intertwined with the context in which caring takes place (Andersson et al., 2015). Inspiring hope in patients, providing physical comfort, having skilful techniques, possessing professional knowledge, having patience, and respecting patients' cultures were identified as caring themes among nurses (Tsai et al., 2015). Interestingly, Karlou et al. (2018) reported the top three caring behaviours as "knowing how to give shots, IVs...", "giving the patients' treatments and medications on time", and "helping to reduce the patient's pain'. Meanwhile, as for the caring subscale, "knowledge and skills" and "assurance of the human presence" were rated as the top subscales.

The literature revealed incongruent perceptions of nurses' caring behaviour among stakeholders. Nurses reported higher scores on their caring behaviour compared to patients ($p<0.05$) (Calong & Soriano, 2018 Alikari et al., 2022). Patients defined more privileged nursing behaviour as giving patients' treatments and medications on time in the assurance subscale, whereas nurses focus on reducing the patient's pain (Kiliç & Öztunç, 2015). Besides, nurses rated comforting care as the highest, followed by clinical care, humanistic care, and relational care, respectively, but on the contrary, clinical care was ranked as the highest by the patients, followed by comforting, humanistic, and relational care (Calong & Soriano, 2018). Ironically, while nurses rarely mentioned comforting patients and attending to their basic physical needs, patients gave nurses high scores on these caring activities (Thomas et al., 2018). Moreover, caring perception differs by personal characteristics, life experiences, and expectations (Kiliç & Öztunç, 2015; Abdullah et al., 2017). Nevertheless, a significant relationship between the level of nurses' caring behaviour as perceived by the patients and the patient's satisfaction level was found ($p <.05$) (Abdullah et al., 2017; Calong & Soriano, 2018; Thomas et al., 2018).

2.3 Factors Affecting Nurses' Caring Behavior

Organizational factors, personal and interpersonal factors, and demographic factors were some of the identified predictors of the caring behaviour of nurses (Elayyan et al., 2018). Lack of organizational support and inflated demand for work pace leads to emotional exhaustion, and burnout compromises empathetic care. On top of that, total stress was significantly associated with the four dimensions of caring behaviours (Sarafis et al., 2016). Nurses could not cope with work demands, resulting in poor caring behaviours and worsening occupational stress. The interpersonal barriers include patients' behaviour and inappropriate role modelling by nurse superiors. Nurses working in people-oriented specialities were found to possess a higher level of empathy than technology-oriented specialists (Elayyan et al., 2018; Karlou et al., 2018). Adding to caring predictors, personality, spirituality, and nurses' teamwork attitudes were found to have significant relationships with nurses' caring behaviour ($p<.05$) (Abu Bakar et al., 2017; Celik et al., 2019).

2.4 Enhancing the Nurses' Caring Behavior

Apart from the identified factors and barriers, training workshops and informal and experiential learning were known as facilitators that could enhance the caring behaviour of nurses (Hayter & Brewer, 2018). It was proved that caring behaviour can be cultivated by using online audio-visual technologies as they are easily accessible and appear to be a cost-effective, valuable, and convenient approach to providing nurses with the opportunity to earn continuing education credits. Caring educational programs for nurses are essential to enhance care knowledge and practice and significantly improve patient satisfaction. Previous research also suggests that educational programs centered around caring for nurses are widely recognized as a crucial strategy for enhancing nurse caregiving behaviours, improving nursing quality and subsequently enhancing patient satisfaction (Bachtiar et al., 2023). Moreover, Watson's theory, as a basis for improving nursing care, was applied in a few studies, which indicates that the most imperative caring behaviours were related to faith, hope, and concern for humanity. In addition, the effort of the organization in introducing multiple caring initiatives and continually integrating caring philosophy in the organizational structure has proven the improvement in patients' perceptions of caring in the studied setting.

Based on the reviewed literature, a conceptual framework is developed to provide an established foundation and guidelines with a comprehensive view of this project.

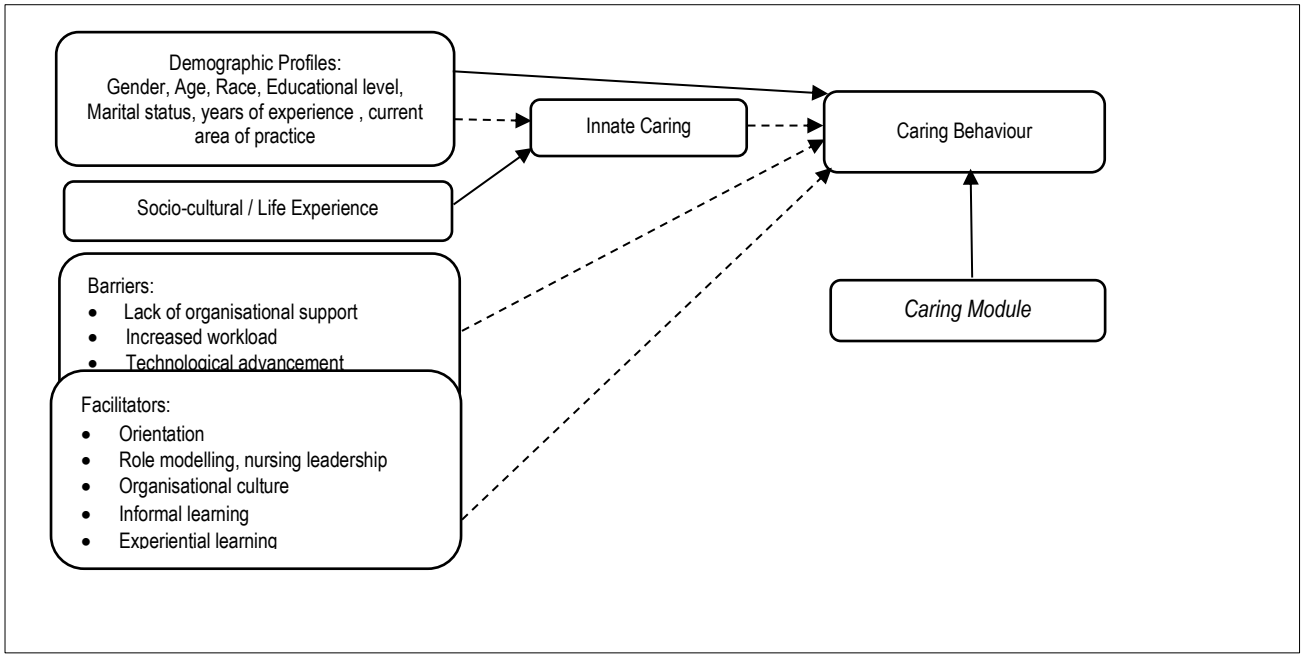

Fig. 1. Conceptual Framework of Nurses' Caring Behaviour

3.0 Methodology

Our project will be executed in three phases utilizing a mixed-method design with the application of the ADDIE instructional model for module development. The model is commonly used in producing effective teaching design and provides five crucial steps in developing teaching modules that cover the analysis, design, development, implementation, and evaluation. Briefly, Figure 2 illustrates how the study will be conducted.

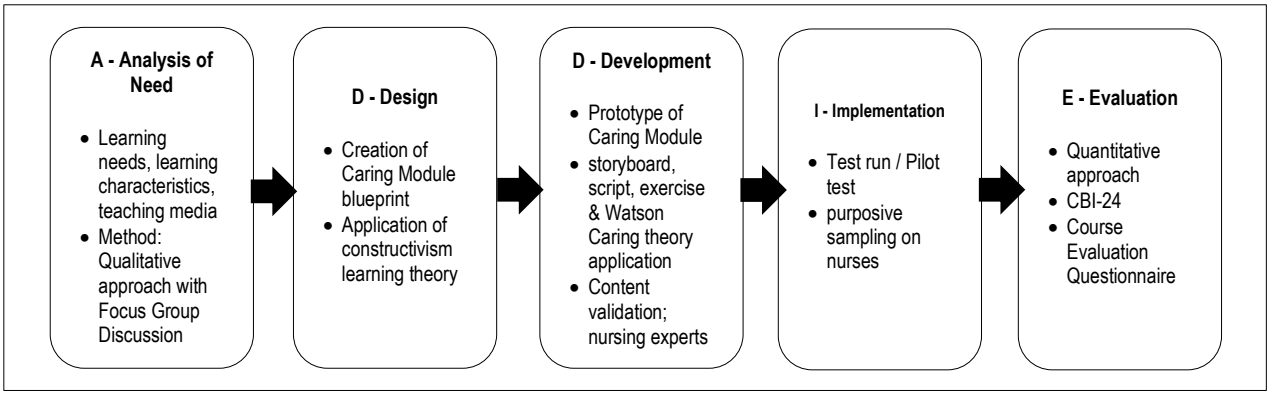

Fig. 2. The Overview of Study Protocol

3.1 Phase One (Need assessment)

The nurses' caring behaviour from various perspectives in their professional nursing practice will be explored with a qualitative approach with focus group discussions. It will assist in problem identification, determining the problem source, and finding possible solutions, thus ensuring that the educational goal can be developed with focused time and resources. Four regional hospitals will be chosen as the study setting, and nurses, patients, family members, and other healthcare personnel will be selected using purposive sampling. The heterogeneous population will allow variable data on nurses' caring behaviour. The focus group discussions with a semi-structured group interview will be conducted on the targeted population repeatedly and end at the saturation point. The discussions will be recorded and transcribed for qualitative analysis with meaningful codes. The analysis is assisted using NVivo 12.0 software. The proposed stages of qualitative data analysis to be applied in the study are based on the thematic analysis phase by Braun & Clarke (2016) (Table 2). Major themes in the caring description will be coded into barriers, challenges, and constraints. Nurses' learning needs, characteristics, and teaching medium will be then categorized and summarized to serve as the foundation of curriculum development. The findings of this phase will further provide the basis of the Caring Module framework in Phase Two.

3.2 Phase Two (Module development)

A blueprint of the Caring Module on how the caring input is to be delivered is intended as the output of this phase. This includes instructional development, expansion of instructional foundation, description of learners (nurses), conducting a learning analysis, writing objectives and measurable test items, selecting a delivery system, and sequencing the instruction. The constructivism learning theory will be applied during this stage. This is because the nurses in the study are those practicing nurses with their own experiences caring for clients. Therefore, this theory application will allow them as learners to connect their own experiences to new knowledge (Brau, 2018). The potential methods of instruction that will be used shall be based on the learners' preferences. Lesson plans and learning materials, module instruction, teaching medium and supporting documents are to be developed based on the FGD outcomes. Watson's caring theory will be applied to the content of care, and nursing experts will be consulted to ensure the content's validity. A draft of the Caring Module will be the product of this stage as the prototype with its specifications, including storyboard, script, exercises, and computer-assisted instruction. Finally, the Caring Module prototype will undergo the process of validation to determine its feasibility and potential effectiveness in enhancing the nurses' caring behaviour via expert review. A mixed-method design will be employed. As for the quantitative component, a Response Box with a five-point Likert scale indicating the nursing experts' views and perceptions towards each section, while an additional section for comments and suggestions on the module will serve as the qualitative measures. Nursing scholars and nursing administrators will be the expert sampling as they are significant sources of reference for the module's effectiveness. The experts' panel will be given full autonomy in reviewing the prototype and will be given sufficient time to indicate their views, perceptions, recommendations, and suggestions. Descriptive analysis will be performed on the quantitative data with mean +SD for each section of the module. Meanwhile, as for the narrative comments, the content analysis will be conducted. Data triangulation will be executed if necessary. The review of experts will likely provide fruitful recommendations and suggestions on which prototype revision should be made if needed.

3.3 Phase Three (Module implementation)

This phase serves as the test run of the module before its actual application in nursing practice, which consists of the implementation and evaluation stages. The developed prototype will be tested for its effectiveness and efficiency in instruction delivery in the Caring Module. Nurses from the same settings in Phase One will be recruited by purposive sampling. The sample size is calculated using the single mean calculation based on the previous literature (Keeley et al.,2015), computing the standard deviation of 0.8, 95% confidence and a precision of 0.15 added with a ten per cent drop-out rate, bringing to the sample size of 123 samples. Upon completing the module, the nurses involved will be given a self-administered questionnaire form consisting of the demographic profile, nurses' self-evaluation on caring with the adaptation of the Caring Behaviour Inventory (CBI-24) version, and a course evaluation questionnaire. The characteristics of the samples will be analyzed using frequency (n), percentage, and mean (+SD) analysis. Besides, the execution of frequency (n), percentage and mean (+SD) analysis on the data collected from CBI-24 will explain the caring perception among nurses. A similar analysis of the course evaluation questionnaire data will be performed for module evaluation. A simple linear regression analysis will be executed to distinguish the relationship between the module (predictor) and the caring perception of nurses (outcome). Additionally, the multiple linear regression analysis is intended as a predictive analysis to describe the data and to explain the relationship between the caring perception of nurses (numerical data) and the demographic attributes (years of experience and clinical area of practice) (categorical data). Preceding, the Kolmogorov-Smirnov test will be executed prior to the regression analysis to check on the data normality. The results of this phase are crucial to providing evidence of module significance.

4.0. Expected findings

Generally, the expected result is that the users appreciate the importance of caring behaviour in their practice with a high level of caring perception.

4.1. Phase One

This phase anticipates gathering four distinct sets of qualitative data from diverse groups: patients, patients' relatives, nurses, and other healthcare providers. The focus will be on identifying and categorizing caring themes into barriers, challenges, and constraints. Additionally, nurses' learning requirements, attributes, and suitable teaching methods will be organized and condensed to establish

the groundwork for module development. Table 1 provides an overview of the retrieval process of qualitative findings through thematic analysis.

Table 1. Thematic analysis for Phase One

Phase	Activity
Familiarization	critically and analytically engaged with the collected data from FGD by reading and re-reading all data items, and taking important notes to look for ideas and concepts of nurses' caring behaviour
Coding	work through the dataset twice and systematically to identify and label interesting features of caring a semantic and/or a latent level, collating data that is relevant to identified code.
Theme development	Clustering the codes into potential themes that are diverse in nature yet relevant to the nurses' caring behaviour.
Reviewing themes	Using a thematic map to review the analysis, explore and revise the relationships between potential themes to ensure coherent finding avoid misrepresentation of nurses' caring behavior. Three theme levels; overarching themes, themes ad subthemes
Defining and naming of themes	Defining clarity themes with ongoing analysis, generate the theme name that captures the theme essence.
Writing up	Reporting of the final analytical writing with data extracts and analytic narrative that present the relevant data related to nurses' caring behavior.

4.2. Phase Two

The development of the module will be informed by the results of Phase One, with the intended delivery medium being either a physical or online format. The content will be designed to incorporate the Watson Human Caring theory while also integrating elements of constructivist learning theory, as the module is tailored for practicing nurses with existing caring experiences.

4.3. Phase Three

The module is to undergo a trial run and subsequent evaluation. Through feedback on perceptions of caring and module effectiveness, this phase will assess the module's impact on enhancing nurses' caring behaviours in their professional roles. Table 2 delineates the anticipated outcomes of this stage.

Table 2. Expected findings for Phase Three

Measuring Tool	Measuring Themes	Plan for Data Analysis	Expected Outcomes
Caring Behaviour Inventory (CBI-24) α=0.96	Overall caring behaviour scale, Caring subscales; assurance, knowledge and skills, respectfulness, and connectedness	Descriptive; frequency and mean distribution Inferential; mean distribution with demographic attributes (years of experience and clinical area of practice); multiple regression analysis	• Users appreciate the importance of caring behaviour in their practice. • Enhanced nurses' caring behaviour
Course Evaluation Questionnaire; 5-likert scale	General / overall rating, course materials, course structures, learning outcomes	Descriptive analysis: frequency and mean. Inferential; simple linear regression between mean value and with caring perception	• Module improvement if needed

5.0 Discussion

This study protocol lays the groundwork for improving nurses' caring behaviour in their professional roles. Insights into nurses' perceived caring behaviour across various healthcare populations can provide valuable guidance to all stakeholders on strategies to enhance this behaviour. The developed module can address variations in caring perception that may arise from diverse personal characteristics, life experiences, and expectations (Kiliç & Öztunç, 2015; Abdullah et al., 2017).

Caring is an acquirable skill, especially in nursing, where educational interventions are recognized as practical tools for helping new nurses foster compassion. This, in turn, contributes to improved patient satisfaction and the overall quality of care delivered (Thomas et al., 2018; Watson, 2019). It has been demonstrated that fostering caring behaviour can be achieved through educational programs or modules. These efforts focus on caring for nurses, which is vital for enhancing their knowledge and practice and significantly impacting patient satisfaction. Furthermore, incorporating Watson's theory in improving nursing care, as evidenced in several studies, emphasizes

the importance of caring behaviours such as faith, hope, and concern for humanity. Additionally, organizational efforts to introduce multiple caring initiatives and integrate caring philosophy into their structure have improved patients' perceptions of care.

6.0 Conclusion & Recommendations

Nurses, who stand at the forefront of the healthcare system, constitute a particularly vulnerable group. This project protocol is paramount as it aims to yield valuable insights crucial for shaping national policies concerning nurses' caregiving behaviours and the factors influencing them. Moreover, it seeks to leverage the Caring Module to elevate the standard of nursing care, thereby proposing a robust, dependable, and all-encompassing framework for enhancing nurses' caregiving practices in their professional domain.

The development of this module is rooted in the requirements articulated by various stakeholders within the national healthcare system, promising substantial benefits for our healthcare populace, as indicated by the anticipated outcomes of the first objective. The second objective seeks to refine existing models and nursing theories related to patient care management by creating this developmental module. Furthermore, it endeavours to equip nurses with tools to deliver superior nursing care characterized by a humanistic and holistic approach while proposing reforms to fortify healthcare service delivery to our consumers. Consequently, this initiative marks the pioneering effort in developing a module to enhance the quality of holistic nursing care nationwide, as inferred from the expected findings of the third objective. The empirical evidence generated through this endeavour will be instrumental for the Ministry of Health in ensuring the stability of the national healthcare system and identifying future educational and training needs for nurses.

However, the scope of the study might be constrained by its focus on only four regional hospitals, potentially restricting the depth of exploration into nurses' caregiving behaviours. Additionally, the diverse nature of settings and organizational behaviours could pose challenges in interpreting the findings regarding nurses' caring behaviour.

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Paper Contribution to Related Field of Study

Applying the Caring Module will ultimately improve the quality of patient care management as the intervention will be developed and tailored to the need for a humanistic and holistic approach. The module shall act as a guide to help nurses become more attentive and caring in their professional nursing practice.

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