



# **Exploring the Usefulness of Essential Quotient in Nursing Education**

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### **Authors' contributions**

*This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

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## **ABSTRACT**

Nursing education like other educational institutions has utilized Intelligent Quotient in assessing the academic achievement of nursing students neglecting student's emotional, physical, and spiritual coping abilities which may contribute immensely to the success of the individuals' goals in life. This is because a prospective nursing student may enter nursing training with a range of psychological, social, and emotional needs. The argument here is that physical, intellectual, emotional, and spiritual quotients, also known as Essential Quotient (EQ) are innate in man and can influence the acquisition of knowledge.

This paper explores the need to in-cooperate the four EQ into the curriculum of the nursing education program. The underpinning is that the nursing student of today should emerge as a practitioner with high scholarship and intellectual capabilities for questioning and research. Nursing students must be helped to build on the qualities they already possess to develop excellence in their nursing practice. This, therefore, challenges nurse educators to teach nursing students, to think, to understand, and criticize beliefs and assumptions that guide their practice. Strategies for sustaining the change within the content of nursing education are identified.

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## 1. INTRODUCTION

The essential quotient is a composite of physical, intellectual, emotional, and spiritual quotient. Invariably, all these four quotients are interconnected; inter-related and inter-dependent creating a synergy of academic embellishment, social well-being and psychological balance in the acquisition of knowledge. Nursing education, like other educational institutions has neglected student's emotional, physical and spiritual coping abilities in assessing the academic achievement of nursing students.

Most of the time in nursing education a student's academic performance is determined using the cognitive test alone, and any student who fails to make reasonable scores at the clinical assessment is termed a dull student. This practice, it can be argued has truncated the academic aspiration of many prospective nurses as efforts were not made to know why such students do not perform well. The emotional, physical, and spiritual coping abilities as argued by [1] are the necessary infrastructures on which life can properly be built and lived.

Nursing literature is replete with the fact that almost every nursing student in the early part of their education would experience anxiety about whether his/her care of patients will be good enough [2]. It is even more frightening when he or she is being told by a clinical instructor that you don't have what it takes to be a good nurse. But the question is; what does it take to be a good nurse? Is it a mystical composite of unattainable, un-learnable equalities that are acquired or in-born? Good quality nursing according to Hassan [2] means a good experience for patients with the six core elements; a holistic approach to continuous care that is efficiency and effectiveness, evidence-based practice and safe nursing interventions that allow for patient empowerment. However, it is sad to say that these qualities are not very visible in our hospital wards these days. This has serious implications for nursing practice. The essence of this paper is to highlight how nursing students can begin building on the qualities they already possess to develop excellence in their nursing practice.

This paper explores the need to in-cooperate the four EQ into the curriculum of the nursing educational programs. Knowledge of the impact

of these variables will not only help nurses to excel academically, but it will also enhance their professional skills in their relationships with the consumers of health care. The underpinning is that the nursing student of today should emerge as a practitioner with high scholarship and intellectual capabilities for questioning and research.

### 1.1 The Interconnectedness of the 4 Quotients to Nursing

The four essential quotients are interconnected in such a way that one leads to the other. The interconnectedness is similar in orientation to Maslow's hierarchy of needs. In Maslow's hierarchy of needs, needs range from the most basic drive for food and water to a sophisticated drive for productivity and creativity. In addition, when certain needs are frustrated or threatened, the individual may react in a variety of self-protective ways.

Within the template of the four essential quotients, the spiritual quotient is at the apex of the pyramid while the physical quotient is at the base. While it is true that all four essential quotients do not carry the same weight at the same time, during illness, or in some situations in the education of the nursing students some needs may take on a greater importance. For instance, a nursing student that is not physically fit or has a physical challenge affecting the brain will not be able to do well academically. In the same vein, a starving individual will rather concentrate all energy meeting the physical needs, rather than bothering on the intellectual, social, and economic pursuits, until the hunger drive is satisfied. This means that the fulfillments of other quotients depend on the fulfillments of the physical quotient. Similarly, a nursing student may be totally absorbed by anxiety and low self-esteem, until efforts are made to help him/her develop a more positive self-image

Environmental factors like education, premature birth, nutrition, pollution, drug and alcohol abuse, mental illnesses, and diseases can also influence an individual's EQ. Spiritual quotient, Nwadinigwe & Azuka-Obieke [3] noted is the soul of the intelligence and the source and guidance to the other three quotients. The benefits of spiritual intelligence according to these authors include; the development of self-awareness, self-confidence & enhances rational

thought. Furthermore, the authors concluded that spirituality teaches every individual to be compassionate with each other. Therefore, EQ must be monitored in nursing students to prevent a negative influence on their nursing and academic performance.

The use of the four quotients in assessing nursing student's competences is very essential because a nurse that has high intelligence quotient and cannot control his or her emotions nor has a good grip of a client's spiritual needs will only be good theoretically with poor clinical performances at the bedside. There have been instances of nursing students passing written examinations but failed clinical examination because of a poor approach to clients care. Such individuals had been asked to repeat the particular examination. It is, therefore, necessary that attention is paid not only on the intelligence quotient of an individual; the other quotients need to be looked into also.

With a new emphasis on the four quotients, new entrants to nursing must be guided to imbibe the core value of nursing care; compassion, empathy, and competence in a therapeutic relationship. The absence of these qualities can lead to disillusionment and higher turnover in nursing. The underpinning is that the transition into a physically and psychologically demanding clinical environment can lead to reality shock and frustration. Several nursing authors; [2,1,3] argued that the disillusionment from reality shock and frustration as noted in IOM, [4] report on the future of nursing, leading change suggests a high turnover rates of nurses especially during the first two years of employment. A study of RN turnover by The Robert Wood Johnson Foundation [5] supports this assertion in that one in five new nurses leaves their first job within a year. Similarly, a ten year study of new nurses, reported that 17.5 percent of nurses change jobs within the first year of employment and a two-year turnover of 33.5 percent [6].

## **2. THE CONCEPT OF ESSENTIAL QUOTIENT**

Quotient, as stated by is gotten from the Latin word, 'Quotient' meaning 'how many times', 'how often'. The EQ is a composite of physical, intellectual, emotional, and spiritual quotient. The essential quotients are the makeup of an individual. All these four questions are interconnected; inter related and inter-dependent. The four quotients can be likened to the

strengths and natural styles in an individual that makes the individual unique. For example, an individual may be incredibly book smart, but lack compassion or be emotionally unstable. Therefore, a bit of each quotient is essential in the makeup of an individual for a balanced life.

### **2.1 Physical Quotient (PQ)**

The Physical Quotient deals with one's self-awareness and the extent to which an individual adapts to his or her environment. PQ can be expressed in terms of one's physical health, symmetry, sharpness, adjustability, and tenacity in withstanding stress. According to Bar-On, Maree & Elias [7], physical health is an attribute we all possess which can momentarily be lost but can be constantly reacquired. Clients with physical illness have needs other than medical treatment and skilled nursing care. The premise is that an individual may enter the health care delivery system with a range of psychological, social, and emotional needs. If these are not well handled the patient can be frustrated and the nursing outcome may be hampered.

The influence of psychosocial development tasks on physical wellness cannot be ignored. Psychosocial developmental tasks have been categorized into stages according to a variety of approaches; physical, sexual, emotional, intellectual, social, and moral. Each phase has its developmental tasks. These tasks must be accomplished and the personality reoriented to accommodate them before further development is possible. The physical quotient is, therefore, the foundational element on which a balanced life can be attained. The nurse of today must be prepared to deal with all aspects of human life, act calmly, constructively, and compassionately in life-threatening situations. The bottom line here is that if the nurse is not physically fit, her clinical performance may be altered.

### **2.2 Intelligent Quotient (IQ)**

The word intelligence comes from the Latin intelligentsia means "choosing between". Intelligence quotient tries to foretell if one can do certain works; that may include reading, writing, or creating a business plan. It implies ones' ability to use the cognitive skills ([7]. According to Codier & Odell [8] intelligence is the capacity to learn from experience, using a meta-cognitive process to enhance learning and the ability to adapt to the surrounding environment. Intelligence quotient was described by

Nachiappan, Andi, Veeran, Ahmad & Zulkafaly [9] as the composition of mind, as well as related abilities like; philosophical thinking capacity, perceptive acumen, learning from prior exposure, and problem-solving.

Traditionally, the intelligent quotient (IQ) score was used to measure the intelligence and a predictor of academic and career success and job performance of an individual. With more research, it was found that intelligence test scores alone do not predict life successes, or how well individuals perform on the job ([8], [9] & [7]). Research over the last 20 years has shown the influences of social, emotional abilities on the capabilities of workplace success [8,7].

The nursing process which is the framework of nursing practice demands a combination of intellectual skills, interpersonal, and professional technical skills to provide quality nursing care. The nurse's ability to carry out her professional roles depends on the development of intellectual skills. The premise is that what an individual may know is not as important as what he can do with what he/she knows. The emphasis in the labour market including nursing now is an extra functional qualification, which includes abstract theoretical thinking, creative, and the ability to work with a team [10].

The intellectual skills needed in the use of the nursing process are, critical thinking, problem-solving and decision making. Once the nurse has assembled a body of facts, she uses critical thinking to sift through the information, and start generating ideas about what this information mean. Problem-solving is the thought process used to decide a particular course of action. Once these skills are learned, they no doubt will influence the over-all intelligent quotient of the nurse and will serve as a point of reference throughout the lifetime of the nurse. The argument here is that the intellectual skills and professional technical skills are as important as the intelligent quotient and must be used interactively at each step of the nursing process.

### **2.3 Emotional Intelligence (EI)**

The concept of Emotional Intelligence (EI) has evolved over the year as more attention is being paid on the emotional stability of the health care provider. EI has been defined in a variety of ways. Emotional intelligence was described by Bar-On et al. [7] as an aggregate of interrelated emotional and social competencies, skills and

facilitators that determine how effectively an individual can understand others and relate to them, and cope with daily demands. This definition dictates that emotional intelligence is a composite of skills and competencies that are necessary for any work environment. Extending the importance of EI, Codier & Odell [8] explained that EI is the capacity for recognizing our own feelings and five elements; self-awareness, motivation, self-regulation, empathy, and social skills. Similarly, taking a behaviour approach Evans [2015] defined emotional quotient as the extent to which an individual becomes familiar with his own and other people's emotions to judge between different feelings to classify them accordingly as to utilize them to guide thinking and behaviour.

The major theme from these definitions is that the nurse must be able to step into the shoes of the patients and be able to step out without being overtly attached. This is empathy. Bar-On et al. [7] argued that the ability to empathize is the distinguishing characteristics of a committed nurse in that she must be able to feel in herself the patients fears and concerns and have an understanding that regardless of culture, patients have similar needs, though the needs may differ in strength, intensity and the manner of expression. For example ability of the nurse to show empathy and communicate more understandingly with families that suffer the death of a child would not only help them in accepting and coping with their immediate anguish, but would probably make the long adjustment easier to endure. The focus here is that a nurse with a low level of emotional intelligence may have problems socializing and communicating in her clinical practice. Thus, nursing education must in-cooperate emotional education to aid the nursing students in their social interaction among their peer's clients/patients to the extent that nurses can perceive the feeling of other people.

Several studies have shown evidence of a positive association between EI and nursing practice. Codier & Odell [8] measured EI in clinical staff nurses, positive correlations were found between EI and both performance level and higher organizational commitment. The authors suggested that the development of EI earlier in nursing education will enhance performance in future practice. Ovans [11] & Codier [12] explored the role of perceived emotional intelligence, social support, and coping and mental health of nursing students. Students

with higher emotional clarity scores had a clear perception of their stress used less time focusing on their emotional reactions and sought out appropriate resources, strategies, and support to address their distress. Their results supported the hypothesis that EI is a skill that is important in coping with negative stress within nursing. Augusto-Landa & López-Zafrá [13] acknowledged the need for nurses to manage their emotions and understand those of their patients, but note that EI has not been incorporated into nursing curricula.

Studies within Nigeria also support the positive influence of emotion on academic achievement. Nwadinigwe & Azuka-Obieke [3] study on the impact of emotional intelligence on academic achievement showed that students exposed to an emotional-learning system had a more positive impact on their academic performance than those in a peer monitoring and control groups. Their study also suggested that emotional-learning system is an appropriate curriculum intervention program that can develop the emotional intelligence skills of the students which play an important role in their academic achievement.

Similarly, Smith [14] found out that emotional intelligence can significantly predict academic achievement of college students, and suggest that curriculum developers should integrate emotional intelligence into the curriculum. The author further stressed that schools and admission tests should not only emphasize developing a students' cognitive abilities but also the emotional skills since there are demanding careers, like nursing that may require a high emotional function and stability. Augusto-Landa & López-Zafrá [13] examined the effect of emotional intelligence on the academic performance of adolescent students and found that students with high emotional intelligence show better academic performance than the students with low emotional intelligence.

## 2.4 Spiritual Quotient (SQ)

Spiritual intelligence is central and most fundamental of all the intelligence, because it helps to develop self-awareness, self-confidence & enhances success by developing rational thought. The place of spiritual care in nursing cannot be overemphasized especially with the emphasis on holistic care. Maraichelvi & Rajan [15] explained that spiritual intelligence is the ability to choose between spirit and ego. In

extending the definition the author stressed that spirituality should be seen as "the invisible, unseen core of individuals that contributes to their uniqueness and communes with a transcendent being (a higher power or God) or transcendent values that provides meaning, purpose, and connectedness". Additionally, Smith [14] explained the differences between religion and spiritual care. According to him, religion should be understood in terms of adherence to an accepted formalized system of belief and practices while spiritual care is the provision of care in the domain of spirituality.

Some characteristics of spirituality, according to McEwen [16] include; commitment, compassion, connectedness, empathy, faith, hope, meaning, presence, and purpose. Studies by Maraichelvi & Rajan [15], Bhangale & Mahajan [17] & McEwen (2005) have shown that religious patients lead healthier lives and require fewer health services. A study of 3963 Americans 65 years or older evaluated the effects of religious activity on blood pressure. Patients who attended regular religious services once or more weekly had slightly lower blood pressure than those who did not attend regularly (less than once weekly). Participants who both attended religious services and prayed or read the Bible at least daily were 40% less likely to have a diastolic blood pressure of 90 mm Hg or more than those who reported low religious attendance and little prayer or Bible study [17].

Although several recent literature and researches have attempted to examine spirituality and its influence on nursing, several areas remain to be researched. One major deficit from examining literature is the lack of a standardized tool for assessing the spirituality of patients. To this end, Mostafa, Tantawi, & Hassan [18] argued for a scientifically validated tool for assessing and implementing spiritual care.

## 3. IMPLICATIONS FOR NURSING EDUCATION AND PRACTICE

### 3.1 Admission Process of a New Entrant to Nursing

The selection of nursing students, for entry to nursing programs in Nigeria, needs to be re-evaluated to prevent the current high turnover in nursing. Currently, the Nursing and Midwifery Council of Nigeria require that new entrants must be seventeen and half years old and must have passed five subjects at the credit level. These requirements by the Council raise many

questions. Are educational qualification indicators of the ability of the individual to complete nursing education and be committed to staying in nursing? Is success in a specific test, an indicator of the clinical competences of all entrants to nursing? The argument here is that valid and reliable tools are required to measure applicant's ability to complete the nursing program successfully, and stay in nursing. The tool should not only emphasize developing a student's cognitive abilities but also emotional skills needed in the nurse-patient relationship. This relationship requires the nurse to have a high emotional functionality, and stability.

The tenet here is that selecting persons for nursing is one thing and retaining them in the profession is another. Nursing education must assess the four essential quotients in all new entrants to nursing so that the student is not only judged by the IQ they possess or their ability to excel academically but largely on the ability to control his/her emotion when in an awkward situation in the clinical environment.

### **3.2 Adequate Socialization and Mentoring in Nursing**

Adequate socialization and mentoring in nursing is needed because of the uncertainty of clinical practice and to prevent transition shock. Transition shock is usually experience when the fresh graduate is asked to head a unit/ward or face an ethical dilemma. Suddenly the security of the lecturers who she would normally run for advice is no longer available. Thus, extreme nervousness and stress may occur because the new roles are usually beyond their level of competence, knowledge, and experience at that time. The negative comment of senior colleagues in expression of dissatisfaction with technical skills has not helped either. This situation has increased the incidences of burn-out and drop out of nursing. This calls for the need for adequate socialization into nursing. Agbedia [1] argued that for nursing students to be adequately socialized, they should spend enough time with their mentors, preceptors, role models or qualified senior nurses in the practice settings to gain enough exposure to nursing culture. Within this context nursing students will learn the culture, values, attitudes and behaviours that will guide them through their nursing careers.

Thus, mentoring is to be seen as a potent way to assist students to integrate theory and practice and an avenue to bridging the gap between the

older and the younger generation or even between peers and subordinates in the work environment. A key factor in being a mentor is providing an environment that allows for a fluid exchange of information, ideas, and concerns. In Nigeria today, mentoring is still at low ebb or it is better described as lacking. Nurse educators and nurse clinicians must identify the relevant issues both in the clinical and educational settings that will promote the in-cooperation of the 4 essential quotients within the context of socialization and mentoring process.

### **3.3 Changes in Nursing Education Curriculum and Practice**

The curriculum of nursing education must go beyond scientific and nursing knowledge: nursing students must be exposed to clinical skills that will promote the 4 essential quotients. The curriculum of nursing education in Nigeria must be redefined with a readjustment of the teaching and learning process, and most importantly the activities and skills that will foster the 4 essential quotients in the teaching and learning process must be defined. This is against the backdrop that nurse educators in Nigeria continue to base much of what transpires in the classroom on outdated transmission model of teaching, with the nurse educator lecturing and students taking takes, reading texts, memorizing material and taking tests.

Nurse educators must liaise with nurse clinicians and identify essential psychomotor skills for new registered nurses in Nigeria. According to IOM Report [4] nursing profession, with new skills and system design is positioned to be a change agent in this new dispensation. Agbedia [19] explored the characteristics of the emerging nursing workforce and identified the necessary skills for best practices in health care in Nigeria. Some of the new skills, as noted by Agbedia [19] include; clinical judgment skills, clinical thinking skills, assertiveness, technical competency, evidence-based practice, and the ability to work confidently in a rapidly changing clinical environment, inter-professional collaboration, teamwork, end of life care, assisting individuals and families in self-care practices, teaching, and delegation and supervision of care given by subordinates. The last five skills, it can be argued contain elements of the four essential quotients discussed in this paper. They are also the core interpersonal and inter-profession skills that will aid future nurses in their clinical practice.

#### 4. CONCLUSION

In this paper, attempts have been made to explore the need to in-cooperate the four essential quotients in the teaching and learning process in nursing. Nursing education in Nigeria is currently undergoing a lot of transformation, so the curriculum of nursing education must be updated to include the essential quotient as tools that will enhance improved patient care and ensure clinical competency and academic excellence of nursing students. In this regard, nurse educators must identify a framework of clinical skills and learning activities that in -cooperate the use of essential quotient into basic nursing education. Furthermore, proper use of socialization and mentoring would help reduce incidences of emotional instability and ensure adequate professional growth.

#### CONSENT

It is not applicable.

#### ETHICAL APPROVAL

It is not applicable.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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