

Health Literacy Assessment and Communication Self-Efficacy among Nurses at Aga Central Hospital

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Abstract: Health professionals, especially nurses, are essential health information providers to healthcare consumers. They have an impact on health literacy demands put on health consumers through successful interpersonal communication, written and visual health resources, and the development of health literacy environments to enhance health outcomes and secure treatment.

Aim: To investigate the relationship between Health Literacy Assessment and Communication Self-Efficacy Among Nurses at Aga Central Hospital

Subjects and Methods: A descriptive correlational design was used and the study was carried out on 310 staff nurses working at Aga Central Hospital by using two tools as: Effective Communication Techniques Scale and Communication Self-Efficacy Scale.

Results: The results indicated that there were highly statistically significant relationship between health literacy and communication self-efficacy. There was highly statistically significant relationship between health literacy scores of the studied nurses and their age, gender and working hours weekly. There was highly statistically significant relationship between communication self-efficacy scores of the studied nurses and their age and working hours weekly .

Recommendation: Develop a core set of measurable health literacy communication competencies that can be taught and evaluated not just to nurses, but to all health professionals. Insert many types of technology that could be useful in assisting patients to obtain, process, comprehend, as well as use health information and services

Keywords: Communication Self-Efficacy, Health Literacy, Nurses..

I. INTRODUCTION

Health is the main purpose in many disciplines, including nursing, psychology, and medical research. In recent years, a revolution in information and communication technology has driven the development and sharing of information related to health and enables people to live in an abundance of information related to health [1]. The failure to obtain or recognize health information correctly has negative effects on the health of an individual and can contribute to health inequalities [2]. Nurses play a vital role in teaching patients critical information about health care, such as medication administration and discharge guidelines [3].

Knowledge of when and where to look for knowledge, interpersonal communication skills, assertiveness, application skills and the ability to process and retain information are essential competencies required to identify and understand information [4]. The concept of health literacy has become progressively broad. It started as a notion that focused solely on the capacity of people to read and comprehend written content. The definition also encompasses many factors that influence the ability of an individual to access, understand and use health information from several sources [5]. Functional, communicative, and critical skills can slowly improve when viewed as an asset, through formal and informal

education and experiences that can affect behaviors and practices. This will result in improved health outcomes, options and opportunities [6].

The World Health Organization defines health literacy as “cognitive and social skills that regulate the motivation and ability of individuals to gain access, understand and use information in ways which support and maintain good health” [7]. Adequate health literacy has been related to many direct and indirect health benefits, including reduced morbidity and mortality, and a lower probability of using emergency room services[8]. Restricted health literacy was described as an growing issue that affects both individuals and the general population. It is now linked to increased hospital admission rates [9].

Health literacy assessment can be used to enhance the provision of clinical services , community engagement in health , health service planning , public health education and policy development [10]. Needs-based health literacy assessment can identify and help healthcare providers develop strategies that form individuals and communities' capacity to make health-promoting decisions. This isn't just a concern and responsibility for health practitioners at the front line. It has to be a concern and a responsibility at all health systems levels [11].

Health promotion, patient education, follow-up treatment, and care coordination are all nursing responsibilities that contribute to better health outcomes [12]. Communication between the nurse-patient must be clear to ensure there are no errors that could compromise patient safety [13].

Communication is a vital aspect of nursing education, and a necessity for patient safety[14]. Nurses and patients reported apprehension and frustration in cases where communication is not sufficient[15]. Nurses must be good at communication and must ensure that patients have all the necessary information about their condition and that they identify and express the concerns of their patients [16].

After training in communication skills , high communication self-efficacy was found to be associated with improved communication efficiency, which implies having faith in one's own communication skills. However, this confidence may or may not be appropriate when equated with actual performance in communication [17]. Not only does effective communication in hospital permit individuals with communication disorders to influence their environment, but also helps them to interact and manage pain, share information, focus on feelings, display respect and build relationships for social closeness [18]. There is an growing risk of patient safety issues associated with poor communication in hospital. Patients also experience negative emotional effects when they are unable to talk in hospital, including anxiety, rage, concern, depersonalization, frustration and loss of control [19].

Person-centered communication is defined as "skills and qualities, including verbal, Para-verbal and non-verbal communication, as well as empathy and carefulness." Empathy requires all empathetic competencies, communication abilities, and the ability to develop a trusting relationship. Empathic communication encourages patient satisfaction, shared understanding, medication adherence, social support, and self-efficacy[20].In person centered communication, the aim is to ensure attention to the entire person, including exchanging knowledge and decisions, offering compassionate and empowering treatment, and being perceptive to patient needs[21].

II. SIGNIFICANCE OF THE STUDY

There are both practical and theoretical reasons for conducting research on assessing health literacy as it relates to nurses communication self-efficacy. The practical standpoint, every person has the right to obtain health information that allows him or her Making responsible decisions, Given in a comprehensible and advantageous way.The theoretical level is using concepts from the social cognitive perspective that assist nurses in assessing health literacy during patient care encounters. In addition, since accurate efficient documentation of patient teaching is an essential nursing responsibility, communication self-efficacy can be impacted by the nurses' confidence that the workplace documentation system addresses patient’s health literacy concerns and that teaching can be individualized to the needs of the patient [22].

Aim of the study

The study aims to investigate the relationship between health literacy assessment and communication self-efficacy among nurses at Aga Central Hospital.

Research Question:

Is there a relationship between health literacy assessment and communication self-efficacy among nurses?

III. SUBJECTS AND METHODS

Research design:

Descriptive Correlational design was utilized in the study.

The study setting:

This study was conducted at Aga Central Hospital, which affiliated to Ministry of Health and Population. The hospital capacity is 186 beds. It includes an intensive care unit and several departments as medical-surgical, emergency, orthopedic, ...etc. It receives patients from Aga city and neighbor regions.

Study subjects:

The subject for this study included all staff nurses who are available at the time of data collection at Aga Central Hospital. Their total numbers were 310 nurse

Tools of data collection:

Tools of data collection consisted of two tools:

Tool (1): Effective Communication Techniques Scale:
Part(1)Personal characteristics:

It covered items as age, gender, educational level and years of experience

Part(2)Effective Communication Techniques Scale:

Effective Communication Techniques Scale was adopted from Macabasco-O'Connell & Fry-Bowers, (2011). It aimed to assess health literacy. It consisted of 23 items including :

- 21 items described nurses' general knowledge of health literacy and their self-reported use of communication techniques and consisted of 2 techniques as follow :Preparation techniques which included 8 items and action techniques which included 13 items. Nurses' responses were measured by five point Likert scale ranging from: 1=Never to 5= Always.
- 2 items assess to what extent nurses utilized formal versus informal learning methods to acquired communication techniques for the assessment of health literacy. Nurses' responses were measured by five point Likert scale ranging from 1=Never to 5= Always.

Tool (2): Communication Self-Efficacy Scale

This tool was adopted from the Guide for Constructing Self-Efficacy Scales (**Bandura, 2006**). It aimed to measure communication self-efficacy. It consisted of 11 items under two domains as follow :Personal communication self-efficacy which included 6 items and workplace communication self-efficacy which included 5 items.

- Nurses' responses were measured using scale that ranging from 0:4= not at all confident to 7:10 = highly confident.

IV. METHODS OF DATA COLLECTION

Validity and reliability:

The study tools were tested for face and content validity by jury test of five experts in the field of nursing administration and psychiatric to evaluate the items as well as the entire instruments as being relevant ,comprehensive and appropriate to test what they wanted to measure and modification were applied based on their opinions. The study tools were tested to assess reliability via the pilot subjects and Cronbach's alpha test was 0.879 for Effective Communication Techniques Scale and 0.899 for Communication Self-efficacy Scale .

Pilot study:

A pilot study was carried out on 10% from nurses at Aga Central Hospital (31nurse) to evaluate the clarity and applicability of tools and to determine the time needed to fill in questions.

Field work:

The researcher introduced herself to nurses ,explained the aim of the study ,and how to fill in the questionnaire, approval was taken orally and asked them for their cooperation with her. The researcher was present all the time for any clarification.

Ethical consideration:

An ethical approval was obtained from the Research Ethics Committee of Faculty of Nursing, Mansoura University. An official permission to conduct the study was obtained from the responsible administrator of the hospital. An informed consent was obtained from nurses who agreed to participate after providing explanation of nature and aim of the study. All participants were informed that participation in the study is voluntary and that they have the right to withdraw from the study at any time. All participants were assured about the confidentiality of the collected data and the privacy of the study sample was assured.

Statistical design:

The collected data were organized, tabulated and statistically analyzed using (SPSS) software (Statistical Package for Social Sciences, version 19, SPSS Inc. Chicago IL, USA). Data were presented using descriptive statistics using percentage and frequencies for qualitative data and mean and standard deviation for quantitative variables. Correlation coefficient (r) was used to test the closeness of the relation between two variables.

V. RESULTS

Table (1): Illustrated personal data of the studied nursing staff at Aga Central Hospital. Regarding to age, more than half of the studied sample aged (20:30)years with mean (30.98±6.28).Majority of them were female. Also, nearly half of them having Bachelor degree(46.8%). More than one third(40.6%) having experience (6:10)years with mean (9.55±5.68). Finally two third of them working>36 hours weekly (71%).

Table (2): Showed response of the studied nurses regarding health literacy assessment. Nearly one third of the studied nurses often agree on health literacy assessment(32.9%)

Figure (1): Showed levels of health literacy of the studied nurses. Nearly two third of the studied nurses have moderate level of health literacy(62.6%).

Table (3): Showed communication self-efficacy of the studied nurses. Majority of the studied nurses were moderately confident of communication self-efficacy either personal or workplace communication self-efficacy (56.1%).

Figure (2): Showed levels of communication self-efficacy among the studied nurses. Majority of the studied nurses have moderate level of communication Self-efficacy(68.1%)

Table (4): Showed relationship between health literacy and communication self-efficacy among the studied nurses. There was highly statistically significant relationship between health literacy and communication self-efficacy .

Figure(3): Showed relationship between health literacy and communication self-efficacy among the studied nurses. There was Highly statistically significant relationship between health literacy and communication self-efficacy .

Table (1): Personal characteristics of the studied staff nurses (n=310).

Variables	n	%
Age years:		
▪ 20-30	168	54.2
▪ 31-40	120	38.7

▪ >40	22	7.1
Mean±SD	30.98±6.28	
Gender		
▪ Male	56	18.1
▪ Female	254	81.9
Level of education		
▪ Diploma	139	44.8
▪ Bachelor degree	145	46.8
▪ Master degree	17	5.5
▪ Doctorate	9	2.9
Experience years:		
▪ 1-5	86	27.7
▪ 6-10	126	40.6
▪ 11-15	59	19.0
▪ >15	39	12.6
Mean ±SD	9.55±5.68	
Working hours weekly		
▪ <36	33	10.6
▪ 36	57	18.4
▪ >36	220	71.0

Table (2): Response of the studied nurses regarding health literacy assessment (n= 310)

Health literacy assessment	Never (1)		Rarely (2)		Sometimes (3)		Often (4)		Always (5)	
	n	%	n	%	n	%	n	%	n	%
Total communication techniques	16	5.2	35	11.3	93	30.0	88	28.4	78	25.2
Total Learning methods	11	3.5	13	4.2	75	24.2	130	41.9	81	26.2
Total health literacy	14	4.5	28	9.0	87	28.1	102	32.9	79	25.5

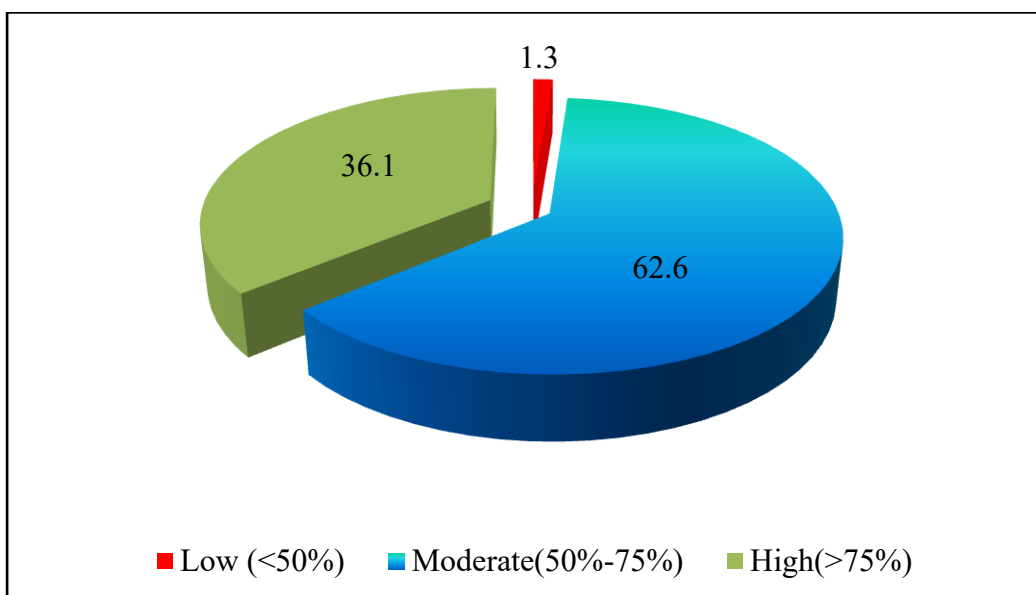


Figure (1): Levels of health literacy of the studied nurses (n=310)

Table (3): Communication self-efficacy of the studied nurses (n= 310)

Communication self-efficacy	Not at all confident		Moderately confident		Highly confident	
	(1)		(2)		(3)	
	n	%	n	%	n	%
Personal communication self-efficacy	33	10.6	178	57.4	99	31.9
Workplace communication self-efficacy	71	22.9	171	55.2	68	21.9
Overall communication self-efficacy	52	16.8	174	56.1	84	27.0

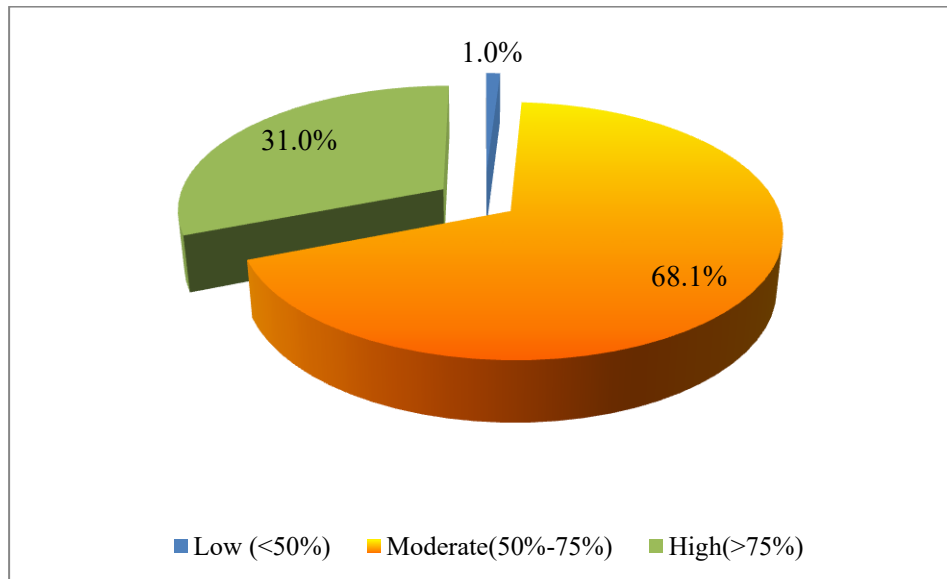


Figure (2): Levels of communication self-efficacy among the studied nurses (n=310)

Table (4): Relationship between health literacy and communication self-efficacy among the studied nurses (n=310)

Variables	Health literacy assessment	
	r	p
Communication self-efficacy	0.30	0.000**

** Highly statistically significant (P ≥0.01)

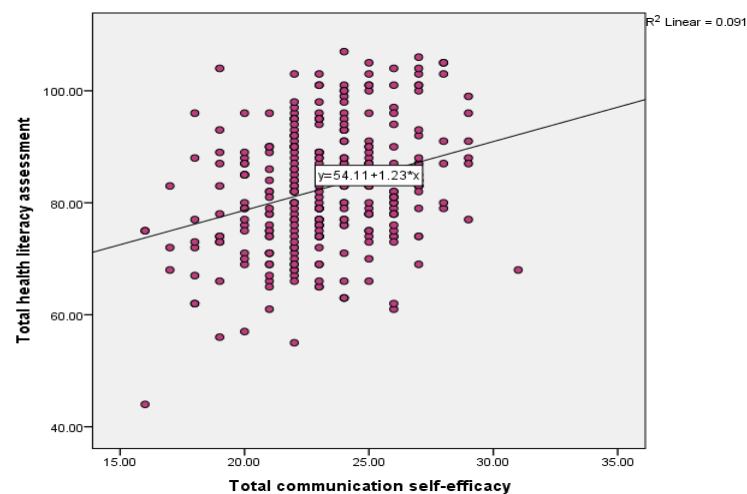


Figure (3): Relationship between health literacy assessment and communication self-efficacy among the studied nurses (n=310)

VI. DISCUSSION

Health literacy is a relatively new subject area of study that had its origins as part of general literacy definitions and measurements (**Berkman et al., 2010**) [23]. An ever-increasing upsurge in research has occurred focusing on health literacy's own conceptual framework, definitions, and means of measurement. As with many emerging disciplines, there is ongoing debate as to what a health literacy conceptual framework should look like as well as a definition that incorporates both an individual focus and an interaction between the demands of health systems and the skills of individuals (**Sørensen et al., 2012**) [24].

Nurses mostly play a different function in the care of patients than doctors do. When patients speak to the doctor, nurses continue to provide more information, and nurses are also expected to consider the needs of patient and family members and improve contact among all parties. While the need for effective communication skills is obvious, currently there are very few instructional programs specifically designed to improve effective communication self-efficacy for nurses (**Krimshstein et al., 2011**) [25].

The present study showed majority of nurses agreement regarding knowledge of health literacy. This may be due to usage of the effective communication techniques utilized to assess and promote health literacy more frequently, having adequate number of nursing experience years and nurses' highest level of nursing education.

In agreement with the present study, **Benner's, (2001)** [26] model of skill acquisition in nursing outlines five stages of proficiency: novice, advanced beginner, competent, proficient, and expert. Given their years of nursing experience, these nurses are likely in the proficient or expert stage of nursing skill acquisition. At these stages, the nurse has a deep understanding of the many aspects and attributes of patient care situations and often has an intuitive grasp of the appropriate action needed when giving patient care. For these nurses, the development of "habitus" – the tacit, endogenous understandings a person has regarding one's place and role in a culture or practice (**Bourdieu, 1990**) [27] – has likely become an incorporated, cognitive, yet taken-for-granted skill available in whatever patient care situation it is required.

The present study shows that formal learning strategies were used to a significantly greater extent than informal learning strategies. These results are not surprising. Current nursing curricula includes the patient education process as part of developing the nursing care plan and the principles of teaching and learning are often not included in pre-licensure nursing programs. Patient training is a legal mandate of all nurse practice acts and the concepts of patient education are usually incorporated throughout the pre-licensure nursing curriculum rather than being presented as a separate course of study.

In agreement with the present study, (**Bastable, 2008**) [28] showed interest and attention to the educator role has become an integral part of graduate nursing programs. After becoming a practicing nurse, most nurses find that they are providing patient teaching many times throughout their workday. This could explain why the nurses in this study expressed that they utilize formal learning methods to a greater extent than informal learning methods to attain effective communication techniques. Informal learning methods are much broader in scope than formal learning methods and include sources such as books, schools, seminars and conferences, peers, the internet, and personal experience. This survey did not seek to determine specific informal learning methods used by the participants of this study. However, continuing education credits (CEUs) are a necessity for maintaining licensure and certification as an nurse so the use of informal learning methods that fulfill these requirements was a probable source.

The present study showed majority of nurses were moderately confident Communication self-efficacy either personal or workplace. This may be due to certain characteristics of workplace self-efficacy affects the nurses' personal communication self-efficacy and nurses' confidence in their ability to use the workplace documentation tool to individualize patient teaching contributes towards their overall workplace communication self-efficacy and may thereby impact their personal communication self-efficacy as well.

In agreement with this study, **Dewalt et al., (2010)** [29] go in the same way and reported that, One of workplace characteristics is that nurses' confidence that she or he has the necessary resources to provide patient teaching. Nurses

utilize many types of documents to provide patient teaching and consent for treatments. The recommendation for documents to be considered easy-to-read is that they are written at a third to sixth grade reading level. Ensuring that nurses can provide patient education with easy-to-read materials is an important characteristic of workplace communication self-efficacy that can affect the nurses' communication self-efficacy. Also, there is a propensity toward the use of written materials in providing patient education (Caffero, 2012) [30]. However, many other formats could be used in a cost efficient manner to provide patient teaching. Some ideas are audiovisual materials, photo-novellas, cartoon illustrations, podcasts, and social media (Brach et al., 2012) [31].

The present study showed that there was a significant positive relationship between the nurses' use of the effective communication techniques used to assess health literacy and their communication self-efficacy. To these results could have contributed a number of factors. For instance, the majority of the respondents indicated that they had received formal education specific to working with patients with decreased and/or limited health literacy. Additionally, nurses are expected to provide patient teaching and received education regarding adult learning principles and techniques.

In agreement with this study, (Macabasco-O'Connell & Fry-Bowers, 2011) [32] go in the same way and reported that the effective communication techniques used to assess and promote health literacy that were addressed in this survey have been applied in other health literacy studies and have become accepted for use in health literacy research. Additionally, patient documentation can be a tedious and cumbersome nursing task. Perhaps the health literacy assessment and promotion techniques would be routinely used by more nurses if there were prompts regarding them built into the documentation tool. This may also contribute to an increase in the number of nurses who feel highly confident in their communication self-efficacy.

VII. CONCLUSION

The finding of the study concluded that almost two third of the studied nurses have moderate level of health literacy and have moderate levels of communication self –efficacy. The relationship between health literacy and communication self-efficacy was highly statistically significant.

VIII. RECOMMENDATIONS

Recommendation to hospital administrator:

- Develop a core set of measurable health literacy communication competencies that can be taught and evaluated not just to nurses, but to all health professionals.
- Insert many types of technology that could be useful in assisting patients to gain, practice, understand, and use health information and services.

Recommendation to nurse educators:

- Investigate the nursing curriculum regarding health literacy to teach the principles of health literacy to nursing students.
- Rigorous studies are needed to compare different educational strategies as well as the optimal time for teaching key health literacy principles to nursing students and for nurses' continuing education.
- Educators can bring new communication technology to the patient and teach nurses to successfully and efficiently use them, warrants further investigation.

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