Introduction of a training module on improving Health System Responsiveness for Nursing Officers

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ABSTRACT

Health System responsiveness is a quality indicator introduced by the World Health Organization in the field of health performance evaluation. Knowledge, attitudes, and practices of health care workers about responsiveness affect the level of responsiveness perceived by the patients as customers of the health system. The objective of the study was to develop, implement and evaluate effectiveness of a training module which was designed to improve the practices of nursing officers regarding responsiveness perceived by the patients. Study was carried out at medical wards of District General Hospital- Gampola. A validated instrument was developed to assess the nursing care responsiveness and a training module was developed to address the gaps in nursing care responsiveness. This quantitative study was performed utilizing the domain specific and the overall mean responsiveness score perceived by the patients selected from pre-test and post-test samples. Domain specific and overall responsiveness scores of the pre-test sample were assessed and training module was conducted as the intervention. Post-test sample was evaluated and compared with the pre-test sample using independent t- test. The results showed that the improvement in the domains of 'dignity', 'communication' and 'basic amenities' were statistically significant. The improvement in overall responsiveness was also statistically significant. The results show the ability of enhancing responsiveness by the capacity building of health care workers who deal in the health system. The study recommends that the training module for nursing officers on improving health system responsiveness can be implemented in other clinical units of the hospital to improve the perception of responsiveness by the patients.

***Keywords**: Health System Responsiveness, Nursing Care Responsiveness, Training Module, Nursing Officers*

1. INTRODUCTION

Health System Responsiveness (HSR) is one of the major goals in assessing health system performances. Health system performance framework of the World Health Organization (WHO) defines the goals of the health system as 'improving the health, enhancing the responsiveness or responding to people's legitimate expectation and fair financing of the population' (WHO, 2000). As illustrated by WHO, responsiveness of a health system comprises of two primary dimensions, namely, respect for persons and client orientation (WHO, 2000). Initially, the dimension of respect for persons was included the domains of 'dignity', 'autonomy' and 'confidentiality'. Client orientation comprises of the domains of 'prompt attention', 'quality of basic amenities', 'choice of care provider' and 'access to social support during care' (Murray and Frenk, 1999). 'Communication' was included to the respect for patient dimension of HSR (Gostin et al, 2003).

There are several complaints about deaths and / or disability of a patient due to inappropriate care and negligence (Kaluarchchi, 2009). It is found that there is a wide variation in the level of responsiveness across countries (Valantine et al 2003, Valantine et al 2009, Servan et al. 2008, Rice et al. 2010). According to the analysis done by the WHO in year 1999 to assess the level and distribution of the responsiveness of health systems of 191 member countries, Sri Lanka was placed in 102nd position among the 191 member countries. Index of responsiveness of Sri Lankan health system was 5.08 (scale 0 to 10) while the best index was 8.10 (Murray et al, 2000 and Tandon et. al, 2000).

De Silva and Valentine (2000) by the on analysis of the results of 35 countries survey on responsiveness had shown that the average level of overall responsiveness score for Sri Lanka was 4.82 (scale 0 to 10) while the indexes for the domains of responsiveness were found to be low. Pawl et al. (2011) analyzed the weighted data of the World Health Survey for China and 10 additional Asian countries and found that the mean responsiveness score for the in- patient set up in Sri Lanka was 53.1 (scale 0 to 100).

Nursing service is one of the major components influencing the overall HSR. Otani et al (2011) expressed in their study on 'Improving patient satisfaction in hospital care settings' that the patients' highest priority is to be treated with courtesy and respect by nurses and physicians.

To enhance the HSR of public hospitals it is necessary to improve knowledge, attitudes and practices of Health care workers (HCWs) of the public sector. Implementing special training programmes for different categories of HCWs is a timely needed intervention to uplift the Responsiveness and the performances of the Sri Lankan health system.

2. LITERATURE REVIEW
According to the World Health Report- 2000, 'health', 'responsiveness' and 'fairness in financing' were forwarded for the assessment of health system performance. Among the three goals, HSR refers to how well the health system meets the non-health expectations of the people who react with the system (Darby et al., 2001).

Evaluation of the HSR is different from the measurement of patient satisfaction. Customer satisfaction has a long history, and it was first introduced to the field of marketing by the Cardozo (1965). This concept of customer satisfaction was conceptualized in the field of health, and it was measured in primary medical care (Hulka et al., 1970). According to the Parasuman (1985), within the concept of quality, health aspects are included in 'technical quality' and non-medical aspects are included in 'functional quality'.
It was found that the HSR significantly varies among countries with different socio-cultural, economic and political systems (De Silva and Valentine, 2000; Navarro, 2001).

In Sri Lankan health sector, the quality concepts have been recognized and implemented in the recent past (National guidelines for improvement of quality and safety of Health care institution, 2010).

Rodrigues et al. (2012a) developed an instrument in assessing nursing care responsiveness in inward setting in 2010. The same group of researchers have applied the tool in assessing the nursing care responsiveness in their study of 'Nursing care responsiveness from the client's view' in a female surgical and medical ward in 2012 and found that the nursing care has adequately represented in responsiveness (Rodrigues et al., 2012b). In the study done by Brosey and March (2014), responsiveness of the hospital staff was included as separate aspect of patient satisfaction. Responsiveness had been included as a separate aspect in several studies to assess perceived nursing care quality in hospital settings (Uzun, 2001; Nashrath, Akkadechaunt and Chontawan 2011).

In Sri Lankan setting few local studies have been done to assess the HSR but not the nursing care responsiveness. Ranasinghe (2012) has assessed the HSR of the medical wards of General Hospital Matara. Perera, Seneviratne and Fernando (2011) have done a study to develop and validate an instrument to assess HSR of family planning services in Sri Lanka. Perera et al., (2012) have assessed the HSR of 38 family planning clinics of Medical Officer of Health divisions of Colombo district. No local studies are available regarding the assessment of nursing care responsiveness. This study would be the first study done to assess the nursing care responsiveness and to implement an intervention to improve it.

3. METHODOLOGY
3.1 Study Design
This was a single arm, interventional study which carried out in District General Hospital, Gampola.

3.2 Study Setting
The project was conducted in medical wards in District General Hospital, Gampola.

3.3 Study population, Inclusion and Exclusion Criteria
Inclusion criteria stated that all patients who will be interviewed have to be admitted to the ward for more than 48 hours in order them to be cared by the all nursing teams of relevant wards. Patients who were 18 years of age or above 18 years of age were included for the study. The patients who were mentally sound and could communicate verbally were only included.

3.4 Sample size calculation and Sampling technique
Consecutive sampling method was used to collect data from 130 patients. When the selected patient didn't meet the inclusion and exclusion criteria the next patient was selected.

3.5 Data Collection Techniques and Study Instruments
3.5.1 Development of the Questionnaire: The questionnaire designed and evaluated by Brazilian authors (Rodrigues et al, 2009) to assess the nursing care responsiveness was studied. The study done by Senarath and Gunawardena (2011) to develop an instrument to measure quality of nursing care was also studied to understand the domains of responsiveness according to the Sri Lankan context. The local study regarding the development and validation of an instrument assessing Health System Responsiveness of family planning services in Sri Lanka was also studied to design the questionnaire (Perera, Seneviratne and Fernando, 2011).

3.6 Mode of Implementation

Research project was conducted in 03 stages; i.e. pre-interventional, interventional and post-interventional.

3.6.1 Development of the Training Module: This was done under the guidance of the Supervisor and several experts in the field. Training module was developed in order to improve knowledge, attitudes and skills of nursing officers with regard to Health System Responsiveness. Guide line for the training module development is annexed (Annexure IV). Training module was consisted of a lecture discussion, video clip presentation and discussion and storytelling and case study discussion. Content of the module was developed after the extensive discussions with the Supervisor and the relevant experts of the subject.

3.6.2 Data Collection: Data collection was started once the ethical and administrative approvals were granted for board of study approved detail proposal. During the period, data was collected by the Principal Investigator and a Medical Officer. Medical Officer was thoroughly trained by the Principal Investigator.

4. RESULTS
4.1 Socio – demographic characteristics of pre-test and post-test sample

Table 4.1: Socio-demographic characteristics of patients of Pre-test and Post-test sample

Characteristic	Pre-test		Post-test	
	N	%	N	%
Age(Years)				
18 – 29	14	10.8%	11	8.5%
30 – 39	12	9.2%	13	10%
40 – 49	16	12.3%	20	15.4%
50 – 59	25	19.2%	21	16.2%
60 – 69	32	24.6%	38	29.2%
70 – 79	20	15.4%	22	16.9%
≥ 80	11	8.5%	5	3.8%
Gender				
Male	70	53.8%	75	57.7%
Female	60	46.2%	55	42.3%
Civil status				
Unmarried	19	14.6%	26	20.0
Married	103	79.2%	95	73.1
Widowed	6	4.6%	7	5.4
Divorced	2	1.5%	2	1.5
Ethnicity				
Sinhala	98	75.4%	92	70.8%
Tamil	13	10.0%	16	12.3%
Moor	19	14.6%	22	16.9%
Education level				
Degree & Diploma	7	5.4%	6	4.72%
GCE A/L	36	27.7%	30	23.07%
GCE O/L	24	18.5%	19	14.61%
Below GCE O/L	63	48.5%	75	57.6%
No: of admissions (last 02 years)				
No admission	95	73.1%	84	64.6%
01 time	17	13.1%	21	16.2%
02 times	10	7.7%	7	5.4%
03 or more times	08	6.1%	18	13.8%

4.2 Pre-interventional level of Nursing care Responsiveness

Table 4.2: Pre-interventional level of Nursing care responsiveness according to the domain

Dimensions of Responsiveness	Pre-test	
	Range	Mean (SD)
Dignity	18 – 30	23.47 (3.04)

Communication	17 – 30	22.76 (1.86)
Autonomy	20 – 30	23.17 (1.67)
Confidentiality	18 – 30	26.03 (3.11)
Basic Amenities	16 – 30	20.92 (3.37)
Prompt Attention	23 – 30	25.34 (2.57)

Overall mean responsiveness score of the pre-test (pre-interventional) was 141.71 (SD=7.15) and it had a range of 122 to 168. (Table 4.3)

Table 4.3: Overall Responsiveness of the Pre-interventional group

	Pre-test	
	Range	Mean (SD)
Overall Responsiveness	122 – 168	141.71 (9.3)

4.3 post-interventional level of Nursing care responsiveness

Table 4.4: Post-interventional level of Nursing care responsiveness according to the domain

Dimensions of Responsiveness	Post-test	
	Range	Mean (SD)
Dignity	21 – 27	24.25 (1.12)
Communication	20 – 30	23.00(1.72)
Autonomy	20 – 29	23.31(1.42)
Confidentiality	19 – 30	26.22(2.10)
Basic Amenities	16 – 30	22.20(2.72)
Prompt Attention	23 – 30	25.57 (2.58)

Mean score of the overall Nursing care responsiveness of the post-test group was increased up to 144.85 (SD = 7.15). Table: 5

Table 4.5: Overall Responsiveness of the Post-interventional group

	Post-test	
	Range	Mean (SD)
Overall Responsiveness	128 – 169	144.85 7.15)

4.4 Impact of the intervention on each domain and overall nursing care responsiveness

Table 4.6: Impact of the intervention on each domain of Responsiveness

Domain of Responsiveness	Pre-test	Post-test	Significance (at 95% of C.I)
	Mean (SD)	Mean (SD)	
Dignity	23.47 (3.04)	24.25 (1.12)	$t = -2.70$, $p = .007$
Communication	22.76 (1.86)	23.00(1.72)	$t = -2.42$,$p = .016$
Autonomy	23.17 (1.67)	23.31(1.42)	$t = -0.76$, $p = .660$
Confidentiality	26.03 (3.11)	26.22(2.10)	$t = -0.56$, $p = .576$
Basic Amenities	20.92 (3.37)	22.20(2.72)	$t = -3.57$, $p = .001$
Prompt Attention	25.34 (2.57)	25.57 (2.58)	$t = -0.69$, $p = .486$

Table 4.7: Impact of the intervention on Overall responsiveness

Pre-test	Post-test	Significance (at 95% of C.I)

	Mean (SD)	Mean (SD)	
Overall Responsiveness	141.71 (9.3)	144.85 (7.15)	t = -3.049, p = .003

There was a significant difference of perception of addressing dignity by the nursing care between the pre and post-interventional group (t = - 2.70, p = .007).

Communication domain (t = -2.42, p = .016) and Basic amenities domain (t = -3.57, p = .001) were significantly improved in post-interventional group.

Mean score changes were seen in relevant to the autonomy (t = -0.76, p = .660), confidentiality (t = -0.56, p = .576) and prompt attention domain (t = -0.69, p = .486) and those were not statistically significant.

Importantly, mean difference of the overall nursing care responsiveness of pre-test and post-test samples was statistically significant (t = -3.049, p = .003).

5. DISCUSSION
Overall mean responsiveness score of the pre-test sample was 141.71 and it was comparatively a higher value.

When the pre-test results are compared with the post-test results, again the confidentiality domain of the post-test was the best domain perceived by the patients and its mean score value was 26.22. As in the pre-test, prompt attention domain of the post-test has been perceived as the second-best domain by the patients. Mean value for prompt attention domain in post-test was 25.57. Mean score for the basic amenities domain has been increased in the post-test and the value is 22.20. Overall mean responsiveness score of the post-test sample has been increased up to 144.85. According to the paper presented by de Silva and Valentine (2001), key informant survey done in Sri Lanka had shown the domains of dignity (rating – 4.31), autonomy (rating – 3.73) and basic amenities (rating – 3.41) were very poorly addressed by the health system and all domains were below 4.5 (out of 10). In the same study rating for the confidentiality domain was relatively better and it was 6.76 (rating – 5.26). Prompt attention also had a low rating of 4.80 in the study (rating – 4.80).

6. CONCLUSION AND RECOMMENDATIONS
Following recommendations can be made,
- The training module for nursing officers on improving health system responsiveness can be implemented in other clinical units of the hospital to improve the perception of responsiveness by the patients.
- HSR is a collective response created by all health care categories. Therefore, training programmes targeted on all health care categories could be recommended for the successful improvement in responsiveness.
- This study was limited to the medical wards of a District General Hospital which is administered by the Ministry of Health. Therefore, further studies done at different line ministry healthcare institutions as well as provincial healthcare institutions are recommended in order to identify any variations in levels of responsiveness.

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