

Outcome of Educational Intervention On Knowledge and Prevention of Compassion Fatigue Among Nurses in Lagos University Teaching Hospital, Nigeria

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Abstract:

The study examined outcome of educational intervention on knowledge and prevention of compassion fatigue among nurses in Lagos University Teaching Hospital, Nigeria. This study adopted a quasi-experimental one group pre-test and post-test design. The population for this research included registered nurses (RN) who are clinical providers. Total enumeration method was adopted for the study and the sample size was 87 respondents. The Instrument for data collection was a 19 item self-structured questionnaire that elicited information relevant to the objectives of the study. The questionnaire was validated using face and content criteria by experts in the field of nursing and Tests & Measurement who ensured that the questions in the research instrument were relevant to the research objectives. A test re-test was used to ensure reliability of the research instrument which yielded reliability index of 0.821. The experimental procedure was in three phases namely pre-intervention stage, intervention stage and post-intervention stage. Data collected were analysed using descriptive and inferential statistics. The pre and post intervention mean score of the

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participants on knowledge of compassion fatigue were (2.91±0.97) and (5.09±1.05). The pre and post intervention mean scores on prevention method of compassion fatigue were (11.01±3.28) and (21.97±1.55). There were significant differences between pre and post-intervention level of knowledge (Knowledge gained = 2.18; $t = 8.468$; $p = .000 < .05$) and prevention (Knowledge gained = 10.96; $t = 13.70$; $p = .000$) of compassion fatigue among the nurses. It was recommended among others that an intensive and comprehensive educational initiative should be organized by nursing leaders and tailored to meeting the specific needs of nurses at all levels of nursing.

Keywords: Intervention, Knowledge, Prevention, Compassion Fatigue,

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Introduction

Nursing, from time immemorial, has always been in the fore-front of health care delivery, especially care given in health care facilities. This nursing role has evolved with time, however, the core concept has remained the same and as the public became more aware of their rights, altruism, empathy, and competence are now expected of the nurse. Besides from the physical and medical care provided by the nurse, patients now often measure the quality of the healthcare they receive based on the emotional and physical accessibility of nurses and their observable levels of compassion. Their high expectations, however, often go unmet. This is usually a result of the challenging nature of today's healthcare work environment, which increases the nurse's stress load especially in bedside nursing. The stressful experiences of nurses' work environments often result in deep-seated emotional impressions that may forever traumatize the caregiver and produce emotional as well as, physical fatigue. Certain risk factors, such as lack of social support systems, personal life experiences and stressors, and stressful work environments combine to leave the caregiver at a heightened risk for the development of burnout or emotional exhaustion leading to its extreme form, known as compassion fatigue (CF) where there is "loss of self" (Scroggins, 2015).

According to a World Health Organization fact sheet, while work is good for the physical and mental health of individuals, a negative working environment can lead to physical and emotional health problems such as exhaustion, apathy, detachment, lack of interest, dissatisfaction and eventually compassion fatigue, which then lead to absenteeism and lost productivity. Globally, an estimated 16-39% of registered nurses experience compassion fatigue with nurses working in emergency, oncology, hospice and pediatric settings being at higher risk.

In Nigeria, there exists a dearth of nursing research on compassion fatigue and this is especially true of the nursing professionals in Lagos State. This may be implicated as a possible cause of the generalized ignorance of compassion fatigue in the Lagos University Teaching Hospital, as it was observed from discussing with some of the nurses in the Lagos University Teaching Hospital, that the majority of the nurses are ignorant of compassion fatigue and nurses who do not even know that they are experiencing symptoms of this psychological condition are not likely to seek help, and are just as not likely to have knowledge of means of preventing and managing the condition.. Nursing is an evolving and maturing profession especially in Nigeria, and so this phenomenon, described as the cost of caring, has become too common among nurses, especially in the underdeveloped worlds where a nurse may be expected to care for 10-20 patients at a time, and meet their needs in an environment that may be hostile and unappreciative of the nurse (Holcombe, Strand, Nugent & Ng, 2016).

Hostility of the environment can be expounded upon by a cross sectional study conducted between 2017-2018 by Honarvar, Ghazanfari, Shahraki, Rostami and Lankarani, (2019); where it was reported that about 89.6% of nurses had experienced at least one kind of violence while 68.4% had experienced more than one and this was identified as the major cause of compassion fatigue among those nurses. Unrealistic expectations by patients' companions and long working hours were also reported to be attributing factors that lead to

development of compassion fatigue. According to Van Mol, Kompanje, Benoit, Bakker and Nijkamp, (2015), in a summary of available literature, the prevalence of compassion fatigue among intensive care nurses was reported to be 40%.

MacKusick and Minick, (2010) found that an estimated 30-50% of new registered nurses choose to change positions or leave nursing completely within the first three years of clinical practice, and it was reported that compassion fatigue is a major contributor to this. It has also been shown that compassion fatigue not only takes its toll on the health care professional who has no idea of what compassion fatigue is and cannot prevent and/or manage it, but also on the workplace itself, causing more sick days, decreased productivity, changes in job performance, poor professional judgment, an increase in mistakes, patient and relation dissatisfaction resulting in wrong perception of the nurse by the patients and relations. The patients then perceive the nurse to be harsh, cruel, unsympathetic and not empathetic (Upton, 2018).

Studies carried out on compassion fatigue in Nigeria have mostly been limited to specific specialties such as mental health specialty, and the maternal and child health specialty among others. The studies have also been based majorly on the experiences of the nurses with compassion fatigue and less on the methods of preventing and managing the condition. However, the use of educational intervention in various developed nations such as the United States of America, was observed to further reduce the incidence of compassion fatigue among nurses (Adimando, 2018). Hence, the need for this study which will proffer solution to the problem of compassion fatigue and the lack of its knowledge, exhibited by the vast majority of nurses in the Lagos University Teaching Hospital. This study will determine the outcome of educational intervention on the prevention of compassion fatigue among nurses in the Lagos University Teaching Hospital by comparing the nurses' knowledge of preventing compassion fatigue before and after health education on the phenomenon.

Based on the foregoing, the study investigated outcome of educational intervention on knowledge and prevention of compassion fatigue among nurses in Lagos University Teaching Hospital, Nigeria. The study specifically examined:

- i. the pre and post intervention knowledge level of compassion fatigue of nurses;
- ii. the pre and post intervention prevention method of compassion fatigue of nurses;
- iii. the difference between pre and post-intervention level of knowledge of compassion fatigue among nurses;
- iv. the difference between pre and post intervention level of prevention of compassion fatigue among nurses; and

Research Questions

The following research questions were raised to guide the study:

1. What is the pre and post intervention knowledge level of compassion fatigue of nurses in Lagos University Teaching Hospital?
2. What is the pre and post intervention prevention method of compassion fatigue of nurses in Lagos University Teaching Hospital?

Research Hypotheses

The following hypotheses were generated for this study:

1. There is a significant difference between pre and post-intervention level of knowledge of compassion fatigue among nurses in Lagos University Teaching Hospital
2. There is a significant difference between pre and post intervention level of prevention of compassion fatigue among nurses in Lagos University Teaching Hospital

Methodology

This study adopted a quasi-experimental one group pre-test and post-test design as the researcher administered the research instrument to the same group of nurses before and after the educational intervention. The target population for this research included registered nurses (RN) who are the clinical providers, who spend their time caring directly for patients and families. Total enumeration method was adopted for the study, where all nurses who were NOII, NOI, SNO and ACNO in the aforementioned wards were proposed for the study. Hence, the total sample size was 87 respondents.

The Instrument for data collection was a 19 item self-structured questionnaire that elicited information relevant to the objectives of the study. The items on the research instrument were grouped under four sections. Section A consisted of 7 questions that assessed demographic characteristics of respondents while section B consisted of 6 questions that measured the respondents' level of knowledge of compassion fatigue. Section C consisted of 6 questions which measured the respondents' method of prevention of compassion fatigue.

The questionnaire was validated using face and content criteria by experts in the field of nursing and Tests & Measurement who ensured that the questions in the research instrument were relevant to the topic and met the research objectives. A test re-test was used to ensure reliability of the research instrument. This was done on a one group population who met the inclusion criteria, but in a different setting and involved 10% of the total sample size. The research instrument was administered to 13 nurses and then re-administered 2 weeks later, to the same set of nurses to test for reliability of the instrument. A reliability index of 0.821 was obtained which when compared to the acceptable standard of 0.70, indicated reliability of the research instrument.

The educational package was self-developed by the researcher and included information on knowledge and prevention of compassion fatigue. The experimental procedure was in three phases namely pre-intervention stage, intervention stage and post-intervention stage. Data gathered from the study was analyzed using quantitative methods. Descriptive statistical tools of frequency tables, percentile and cross tabulation mean scores was employed to answer the research questions. The inferential tool used in testing the research hypotheses was t-test. The hypotheses were tested at 0.05 level of significance.

Results

Research Question 1: What is the pre and post intervention knowledge level of compassion fatigue of nurses in Lagos University Teaching Hospital?

Table 1: Pre and post intervention knowledge level of compassion fatigue of nurses in Lagos University Teaching Hospital

Nurses' knowledge level of compassion fatigue	Category of scores	Pre-intervention		Post-intervention	
		Freq.	%	Freq.	%
Low	1-2	30	34.5	4	4.6
Average	3-4	35	40.2	21	24.1
High	5-6	22	25.3	62	71.3
Total		87	100.0	87	100.0
Mean		2.91 (48.50%)		5.09 (84.83%)	
Standard dev.		0.97		1.05	
Mean difference		2.18 (36.3%)			
Maximum		3.00		6.00	
Minimum		1.00		1.00	

Table 1 presents the pre and post mean scores of an educational training program on knowledge level of compassion fatigue. The nurses' knowledge mean score of compassion fatigue at pre-test was 2.91 which is equivalent to 48.5%. Thus, it could be said that the nurses' knowledge of compassion fatigue before intervention was fair. This is because their mean score is less than 50%. After the intervention, the study revealed that nurses' knowledge mean score of compassion fatigue was 5.09 (84.83%).

Research Question 2: What is the pre and post intervention prevention method of compassion fatigue of nurses in Lagos University Teaching Hospital?

Table 2: Pre and post intervention on prevention of compassion fatigue of nurses in Lagos University Teaching Hospital

Nurses' knowledge of prevention of compassion fatigue	Category of scores	Pre-intervention		Post-intervention	
		Freq.	%	Freq.	%
Low	1-8	28	32.2	-	-
Average	9-16	41	47.1	31	35.6
High	17-24	18	20.7	56	64.4
Total		87	100.0	87	100.0
Mean		11.01 (45.88%)		21.97 (91.54%)	
Standard dev.		3.28		1.55	
Mean difference		10.96 (45.7%)			
Maximum		24.00		24.00	
Minimum		3.00		11.00	

Table 2 presents the pre and post mean scores of an educational training on nurses' knowledge of prevention of compassion fatigue. The nurses' knowledge of prevention method of compassion fatigue mean score at pre-test was 11.01 which is equivalent to 45.88%. Thus, it could be said that the nurses' knowledge of prevention of compassion fatigue before intervention was fair. This is because their mean score is less than 50%. After the intervention, the study revealed that nurses' knowledge of prevention of compassion fatigue mean score was 21.97 (91.54%).

Testing of Hypotheses

Hypothesis 1: There is a significant difference between pre and post-intervention level of knowledge of compassion fatigue among nurses in Lagos University Teaching Hospital

Table 3: Independent t-test showing the difference between pre and post-intervention level of knowledge of compassion fatigue among nurses

	N	Mean	Std. Deviation	df	T	Mean diff	Sig
Pre intervention	87	2.91	0.97				
Post intervention	87	5.09	1.05	172	8.486	2.18	.000

Results in Table 3 indicate a significant difference between pre and post-intervention level of knowledge of compassion fatigue among nurses in Lagos University Teaching Hospital (Knowledge gained = 2.18; $t = 8.468$; $p = .000 < .05$). It could be deduced from these findings that the difference observed between pre and post intervention mean scores could not have been by chance but as a result of the intervention or training the participants (nurses) were exposed to. Going through the knowledge mean scores as shown above, one can say that there is an improvement between pre-intervention knowledge (2.91) and the post-intervention knowledge (5.09). The earlier set hypothesis was retained.

Hypothesis 2: There is a significant difference between pre and post intervention level of prevention of compassion fatigue among nurses in Lagos University Teaching Hospital

Table 4: Independent t-test to shows the difference between pre and post intervention level of prevention of compassion fatigue among nurses

	N	Mean	Std. Deviation	df	T	Mean diff	Sig
Pre intervention	87	11.01	3.28				
Post intervention	87	21.97	1.55	172	13.70	10.96	.000

Results in Table 4 indicate a significant difference between the pre and post intervention level of prevention of compassion fatigue among nurses in Lagos University Teaching Hospital (Knowledge gained = 10.96; $t = 13.70$; $p = .000$). The earlier set hypothesis was sustained. It could be deduced from these findings that the difference observed between pre and post interventions could not have been by chance but as a result of the educational intervention the nurses (participants) were exposed to. Going through the knowledge mean score of prevention of compassion fatigue, one can say that there is an improvement between pre-intervention (11.01) and the post-intervention (21.97).

Discussion

The outcome of the research question measuring the pre and post intervention knowledge level of compassion fatigue of nurses in Lagos University Teaching Hospital. The nurses' knowledge mean score of level of compassion fatigue at pre-test was 2.91 which is equivalent to 48.5%. Thus, it could be said that the nurses' knowledge of compassion fatigue before intervention was fair. This is not because the stressful experiences of nurses' work

environments that often result in deep-seated emotional impressions has not traumatized the caregiver and produce emotional as well as physical fatigue but their knowledge of compassion fatigue is not too good.

This study empirically shows that inadequate knowledge of compassion fatigue among nurses by nurses is likely to be corrected through an organized training program on how they could better assess their wellness while caring for the patients. The major implications of the study are that compassion fatigue prevention must be brought to the forefront of nursing and that both personal and organizational coping strategies and adaptive responses are needed to keep the nurse balanced and renewed to be able to continue compassionate connection and caring (Salmond, Salmond, Ames, Kamienski & Holly, 2019).

After the intervention, the study revealed that nurses' knowledge mean score of compassion fatigue was 5.09. This shows an improvement due to the training the nurses were exposed to and have equally helped the nurses improve their knowledge of compassion fatigue. This finding agrees with studies of Abernathy and Martin (2019) which reported a statistically significant improvement on participants' levels of knowledge following weeks of training on reducing compassion fatigue in pediatric ICU nurses of Alabama, using mindfulness and meditation techniques.

The findings of this study showed that the nurses' knowledge of prevention method of compassion fatigue mean score at pre-test was 11.01 (45.9%). Thus, it could be said that the nurses' knowledge of prevention method of compassion fatigue before intervention was fair. After the intervention, the study revealed that nurses' knowledge of prevention of compassion fatigue mean score was 21.97 (91.54%). This result supports the findings of Turgoose, Glover, Barker and Maddox (2017) which shows that longer-serving specialist officers in London who had greater compassion fatigue, secondary traumatic stress, and burnout and were exposed to an educational intervention and showed an improvement in knowledge of prevention method of compassion fatigue.

The outcome of the first research hypothesis indicated a significant difference between pre and post-intervention level of knowledge of compassion fatigue among nurses in Lagos University Teaching Hospital. It could be deduced from these findings that the difference observed between pre and post intervention mean scores could not have been by chance but as a result of the intervention or training the participants (nurses) were exposed to. This is in line with the study of Avila, Twibell, Dorton, Rook and Duncan (2017) done in Indiana, USA, that there is a significant increase in compassion satisfaction and decrease in compassion fatigue among nurses who participated 180-days post-intervention. Direct care nurses who participated in an educational intervention on self-care reported an increase in healthy behaviors, higher compassion satisfaction scores and lower compassion fatigue scores 180-days post intervention. A one-time educational intervention in the workplace may heighten nurses' knowledge of self-care needs and contribute to positive changes in professional quality of life.

The results of the second hypothesis indicated a significant difference between the pre and post intervention level of prevention of compassion fatigue among nurses in Lagos University Teaching Hospital. The earlier set hypothesis was sustained. It could be deduced from the findings that the difference observed between pre and post interventions could not

have been by chance but as a result of the educational intervention the nurses (participants) were exposed to. This implies that this result suggests that organized educational programs on prevention of compassion fatigue can benefit caregivers, resulting in an increase in compassion satisfaction and decrease in compassion fatigue.

Summary of Findings

1. Nurses' knowledge mean score on compassion fatigue at pre-test was fair (48.5%) while after the intervention was high (84.83%).
2. Nurses' knowledge of prevention method of compassion fatigue mean score at pre-test was fair (45.9%) while after the intervention was high (91.54%).
3. There is a significant difference between pre and post-intervention level of knowledge of compassion fatigue among nurses
4. There is a significant difference between the pre and post intervention level of prevention of compassion fatigue among nurses

Conclusion

This study achieved its initial objectives of assessing the outcome of educational intervention on knowledge and prevention of compassion fatigue among nurses in Lagos University Teaching Hospital, Nigeria. As shown in this study, nurses have the collective opportunity to prevent and manage individual compassion fatigue. This study concluded that organized prevention and education programs on compassion fatigue can benefit caregivers therefore, resulting in an increase in compassion satisfaction and decrease in compassion fatigue.

Recommendations

In view of the findings stated earlier, the following recommendations are made:

- i. The appropriate governing bodies should ensure that information on the knowledge and prevention of compassion fatigue is included in the syllabus for medical and nursing students.
- ii. An intensive and comprehensive educational initiative should be organized by nursing leaders and tailored to meeting the specific needs of nurses at all levels of nursing.
- iii. It is imperative for hospital board members and management to initiate action to extenuate fatigue such as the use of appropriate motivational techniques (good salary, good nurse-patient ratio etc.), in the hospitals to improving nurses wellbeing.
- iv. The government should ensure favourable working condition of all health facilities, availability of the necessary hospital amenities and adequate staffing to effectively achieve fair distribution of labor in order to encourage compassion satisfaction.

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