Brief communication

Does nurses' education reduce their work-related stress in the care of older people?

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ABSTRACT

Background: High stress levels have been reported among nurses from various backgrounds. It is challenging to nurse frail older people in hospitals, and a lack of appropriate knowledge of geriatric giants can result in work-related stress. Sources of stress and coping mechanisms have been studied, but the impact of intervention with regular teaching sessions at the ward level is unclear.
Aims: This work aims to find out the prevalence of work-related stress level in care of the elderly wards and also to find out whether improvement in the knowledge of common problems (geriatric giants) in older people would help alleviate the stress level in our study group.
Methods: All nurses in the two care of the elderly wards were enrolled for the study. Teaching on understanding and management of delirium, dementia, malnutrition, incontinence, pressure sores, postural instability, and falls was delivered twice per week for 6 consecutive weeks. The teaching cycle of 6 weeks was repeated two more times to cover night shifts and leaves. This was done to ensure that each staff member has attended at least one teaching session on each of the six topics over 18 weeks.
Results: Stress levels among staff members were measured using a validated scale, the Expanded Nursing Stress Scale, at the beginning and end of these 18 weeks.
Conclusion: Although the mean overall stress scores were lower after the teaching, this was not statistically significant. However, subanalyses showed significant reduction in stress from their routine workload in managing complex and frail older people.
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1. Introduction

Worldwide, the population is aging and hospitals are increasingly being challenged with very old and frail people admitted with acute illness.[1] Nurses are caring for more adults aged over 65 years than any other patient population. Caring for older people requires specific knowledge and training to manage both acute and chronic problems in older people.

Older people with any acute illness can have further complications including delirium, malnutrition, incontinence, or pressure sores. The National Institute for Health and Care Excellence reported that about 30% of older people fall every year,[2] and their hospital admission is associated with increased risk of falls.[3] Over one-third of the older people admitted to hospitals have background cognitive impairment or dementia. Incontinence, immobility, instability (falls), and intellectual impairment (dementia) have collectively been labeled as geriatric giants to highlight the major illnesses associated with aging.[4,5] Despite being potentially reversible, they do not present in a classical "text book" manner; old patients are frequently labeled as "failing to cope".[6,7]

Among all health care professionals, nurses play a vital role in the health care system and often they are the first point of contact for the patients and their families. In order to provide safe, affordable, and patient-centered care, nursing education needs to

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be enhanced fundamentally. Nursing education is available in most health care settings, but participating in such training events may be difficult due to time and service constraints. The impact is overworked nurses who are unable to keep themselves up to date with their own training and development.[8] This not only increases the stress burden at work, but can also compromise the patient care.[9,10] High stress levels have been reported among nurses from various backgrounds.[11–15] Sources of stress and coping mechanisms have been studied, but the impact of an intervention with regular teaching of nurses at the ward level is unclear.

Various discussions with the nursing staff members have suggested increasing stress at the work place, and it has been reported secondary to a lack of knowledge, training, and confidence in managing older people in the hospital. Our hypothesis was that a regular teaching program for nurses on understanding and management of the most common conditions in older people admitted with acute illness can reduce their work-related stress. The objective of this study was to measure the prevalence of work-related stress level in care of the elderly (CoTE) wards in a local general hospital and also to find out whether improvement in the knowledge of geriatric giants would help alleviate the stress level in the study group.

2. Methods

A focus group was established with the nursing ward manager, senior nurses, and doctors, and discussions were held to understand staff perception, attitude, and factors leading to stress. Nurses working in CoTE wards suggested that in order to deliver enhanced care, they need improved nursing knowledge and education to manage frail older people in the hospital setting. The main issue established was the lack of nursing staff training in understanding and management of six commonly encountered problems in older people. These problems include delirium, dementia, malnutrition, incontinence, pressure sores, postural instability, and falls, which are also known as "geriatric giants".[4,5]

The focus group decided to enroll all nurses in CoTE wards for the teaching sessions on geriatric giants. A formal sample size calculation was not undertaken, since all the nurses who attended the sessions were sampled. Teaching sessions were organized to improve the understanding and current guidelines on management of delirium, dementia, malnutrition, incontinence, pressure sores, postural instability, and falls. The teaching sessions were delivered by a consultant geriatrician (I.S.) and two specialty trainee registrars (G.B. and S.A.). The teaching was delivered twice per week for 6 consecutive weeks. This teaching cycle of 6 weeks was repeated two more times to cover night shifts and leaves, to ensure that each staff member had attended at least one teaching session on each of the six chosen topics over 18 weeks. Teaching was done based on

the national UK guidelines by the National Institute for Health and Care Excellence or the National Service Framework for Older People.[16,17] Each session was for 30 minutes and included lectures, case-based discussions, and reflective practice. Printed handouts of key learning points were given at the end of session.

Nurses were asked to give voluntary feedback and complete questionnaires before and at the end of 18 weeks of teaching voluntarily. Stress level among staff members was measured using the Expanded Nursing Stress Scale (ENSS) prior to commencing nurses' education and again at the end of 18 weeks of nurses' education.[18] ENSS is a well-known and widely used scale to measure work-related stress among nurses.[18] It had been validated to measure sources and frequency of stress perceived by nurses. ENSS has 57 items to rate the stress on a scale of 1–4 for each item (a score of 1 indicates being not at all stressful and a score of 4 indicates being always stressful). Sources of stress comprised nine subscales, including death and dying, conflict with physicians, inadequate preparation, problems with peers, problems with supervisors, workload, uncertainty concerning treatment, patients and their families, and discrimination.

Statistical analysis was performed using SPSS for windows (version 16.0; SPSS Inc., Chicago, IL, USA). Data are presented as means + standard deviation. The difference in scores before and after intervention was summarized with the paired t test. The level of statistical significance at which the null hypothesis was rejected was chosen as 0.05.

3. Results

Nurses' age ranged from 22 years to 62 years (all nurses did not answer the age question) and have been in the profession for 2–40 years. Fifty ENSS questionnaires were given to nursing staff from two CoTE wards. The response rates to return questionnaires pre- and postintervention were 52% (26 participants) and 58% (29 participants), respectively. The total mean ENSS scores were 137.46 ± 41.82 before nurses' training and 122.48 ± 29.14 ($p = 0.13$) after the teaching sessions. There was no significant reduction in overall stress with this teaching activity.

Subanalyses were performed for four out of nine parameters (stress related to workload, conflict with physicians, dealing with patients and their families, and uncertainty concerning treatment), which we thought to be relevant to nursing stress caused by a lack of knowledge (Fig. 1). Stress related to workload was 27.15 ± 5.04 before teaching, and after teaching it was significantly lower (20.86 ± 5.18; $p = 0.001$).

Stress of dealing with patients and their families (preteaching $= 23.19 \pm 5.89$, post-teaching $= 20.38 \pm 5.68$, $p = 0.07$) and stress due to uncertainty concerning treatment
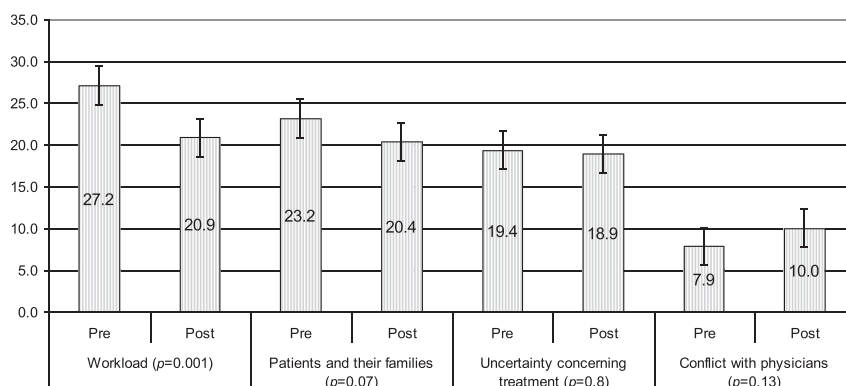

Fig. 1. Nurses' stress pre- and post-teaching (subanalysis).