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BURNOUT AMONG NURSES WORKING IN NATIONAL INSTITUTE OF MENTAL HEALTH, SRI LANKA

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Abstract: In many countries' majority of the national health workforce is made up of nurses thus they play a major role in health care delivery. Burnout is a physical or psychological fatigue or exhaustion felt by an individual due to personal, work and client related stressors. Previous studies report that nurses, especially psychiatric nurses are more prone to burnout which may adversely affect service delivery. Objective of the study was to determine the level of burnout among psychiatric nurses in National Institute of Mental Health Sri Lanka. A descriptive cross-sectional study was conducted among all nurses involved in patient care (n=346) working at National Institute of Mental Health, Sri Lanka. The study instrument was a self-administered questionnaire. Burnout was measured using the translated and validated Copenhagen Burnout Inventory (CBI). Cut off value of overall burnout was taken as 40.16 points according to the validation study. Response rate was 85%(n=296). Prevalence of burnout was 31.8% (95% CI of 30.5% - 33.55%). Adjusted prevalence was 27.1% when considering the Positive predictive value/sensitivity of CBI. Highest mean score was seen in Personal burnout which was 40.75(+18.76 SD) with a 95% CI of 38.60-42.90. Work related burnout had a mean score of 29.24(+17.76SD) with a 95% CI of 27.22-31.28. Client related burnout was 29.53(+16.97SD) with a confidence interval of 27.59-31.47. Total burnout score was 33.25 (+of 15 SD) with a confidence interval of 31.53-34.96. In conclusion, Burnout affects more than one third of nurses at NIMH. Personal burnout score was significantly higher than the means of work related or client related burnout scores. It is a responsibility of health managers to address this problem before it compromises patient care at NIMH.

Keywords: psychiatric nurses, burnout, prevalence

Introduction

Background and Justification

The World Health Report 2000 stated that human resources are the most important of the health system's inputs. "Despite the increased evidence that health workers are fundamental for achieving health goals, there are many countries that continue to experience a severe health workforce shortage. Therefore strengthening the health workforce must be made a key priority of all the countries"(WHO, 2013). "Countries must work to increase the quantity of health workers while maximizing the potential of existing health workers. Effective management of trained health workforce is fundamental to expand health services hence health workers must be incentivized with improved working conditions adequate equipment, facilities, supervision, opportunities for advancement and fair remuneration to retain them to serve in their setting"(WHO, 2013). Worldwide, there are 59.8 million

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health workers (WHO) and in many countries more than 50% of the national health workforce is made up of nurses and midwives (Global Health observatory data).

Burnout

The concept of burnout was first introduced in 1970's. Herbert Freudenberger (1974) and Christina Maslach (1976) studied it independently and came out with a theoretical concept for burnout. Maslach (1982) defined burnout as a "Psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations". Employees in human services like health, education spends considerable time with their clients usually with intense involvement and therefore are exposed to a variety of emotions expressed by the clients like anger, despair. This emotional involvement may become stressors for them in the long run. Therefore, the human services professionals were said to be more prone for burnout. Later, the concept became more generalized and not restricted to human services. Therefore, it was later defined as "A state of exhaustion in which one is cynical about the value of one's occupation and doubtful of one's capacity to perform" (Maslach et al., 1996, p. 20).

Professionals in psychological and social backgrounds define it as a chronic distress resulting from a highly stressful and frustrating work environment. As cited by Schaufeli(2009), popularity of burnout sometimes lies in the very fact that "burnout" is a non-medical, socially accepted label that carries a minimum stigma in terms of a psychiatric diagnosis (Shirom, 1989). Burnout has slowly evolved over time to a well-defined syndrome. Medical professionals see it as a medical condition with diagnostic criteria and treatment and in 2005 the Swedish National Board of Health and Welfare has added the "exhaustion disorder" to the national version of the ICD-10.

Stress and burnout

Many theories and models have been introduced to understand the psycosocial, environmental and occupational stressors and how it affects human beings. The stress processes originating from theses stressors begins as perceived stress which in turn lead to short term , physiological, psychological and behaviral responses like elevated blood prassure, tenseness, alcohol use. Long term,chronic exposure to these stressors can lead to injuries or chronic diseases (Elovianio et al., 2002; Israel et al., 1996). NIOSH model of job stress explains that stressful working may cause physical illnesses like cardiovascular disease, Musculoskeletal disorders, and mostly psychological illnessess like depression and burnout (NIOSH,1998).

Burnout therefore can be intepreted as a psycological disease condition wich is caused by long term exposure to psychosocial stressors. But it is shown that individual and situational factors have a direct influence on the above-mentioned outcomes. Balance between work and family life, support received from family, superiors collagues, subordinates, and the nature of the working environment may greatly influence to mitigate the negative out comes of job stressess.

According to Institute for quality and efficiency in health care, Germany "Long-term exposure to job-related stressors can lead to burnout and it results in exhaustion, reduced performance, alienation of work" (IQWIG, 2017). Some employers say that maintaining a certain level of stress is important to

keep the employess productive. Though short term or infrequent episodes may actually favour that assumption long term unresolved stressors may lead to the above-mentioned outcomes and will actually reduce their performance thus neagtively affect the bottom line.

Nurses In Sri Lanka

In Sri Lanka, nurses are trained in Government Nurses Training Schools for three years. Once registered, they are given permanent, pensionable jobs in government hospitals. Psychiatric nurses are produced in other countries after specialized training whereas in Sri Lanka all the government student nurses are given a 5 weeks psychiatry training, within their basic training period.

National Institute of mental health Sri Lanka

National Institute of Mental Health Sri Lanka, is the largest tertiary care hospital in Sri Lanka for psychiatric care which provides General and specialized psychiatry care. It's the centre for mental health training and research in the country. According to the Annual report (2016), NIMH has a total of around 1500 beds and has over 8000 admissions per annum. Clinical care units in the main hospital can be broadly divided as Outpatient department, Emergency treatment unit, acute wards, combined wards, intermediate wards, special wards and villas. The special wards are the Geriatric unit, Adolescent unit, Learning disorders unit, Perinatal psychiatry unit, Isolation unit, Forensic psychiatry unit, long stay unit, medical unit and ECT unit. Half way home, which is also a part of NIMH, accommodates long stay patients.

Justification

Efficient human resource management is one of the priorities of health care managers. Nurses are the majority of the health work force in many countries (WHO, 2013) including Sri Lanka (Department of Census and Statistics).

(Maslach & Jackson, 1981) burnout was found to reduce quality of care, increase job turn over, absenteeism, and affect service delivery. In another study, a significant negative relationship was seen between job satisfaction and burnout (Tarcan et al., 2016). A study done on Physicians showed that burnout was highly correlated with physicians' intent to reduce work hours and their intent to leave clinical medicine (Olson, 2017).

Therefore, burnout seems to be a symptom of system failure in regards to efficient human resource management and should be addressed promptly before it affects patient care. Thus, timely identification of burn out and identification of factors associated will help the manager in decision making on mitigating this problem.

Several studies have been done on nurse's burnout in western countries including studies specifically on psychiatric nurses (Goalder, 2005; Hanrahan et al., 2010; Power et al., 2001). Burnout in nurses working in tertiary care hospitals in Sri Lanka was done by Samaranayake (2010) but the study has not covered nurses working in mental health settings. Nurses in a psychiatric setting may be more prone for burnout because other than the problems in general for all nurses they have the problem of dealing with disturbed and difficult set of patients on a daily basis. Also, mental health nurses work in an environment which is stigmatized not only by the community but also within the profession.

Stigma contributes to problems in recruitment, work engagement, stress levels and burnout of the mental health nurses (Barling, 2016);MHCA et al., 2005). Therefore, a study on level of burnout is a timely need in order to retain and motivate the nurses working in mental health settings.

Literature review

The literature has been discussed under the broad topics of Burnout, Measuring burnout, Burnout and health work force, Burnout, and nurses and finally Burnout and Psychiatric nurses.

Burnout and Performance

A critical review of 16 studies of burnout and objective performance was done by Taris in 2006. This study reviewed research done on association between components of burnout in Maslach burnout inventory (exhaustion, depersonalization, and personal accomplishment) and objective performance which was measured in various methods and scales. This showed that high emotional exhaustion leads to low performance but couldn't establish good evidence for an association between performance with depersonalization and personal accomplishment. Limitation of this review was that most of the studies were not longitudinal, and some were done on small samples. But one study emphasized that high burnout participants tend to make more errors and that their performance could be suboptimal when compared to their non burn out counter parts.(Taris, 2006)

Measuring burnout

Since the concept of burnout was introduced, there have been many attempts by many people around the globe to come up with a tool to measure burnout. Maslach Burnout Inventory (MBI; Maslach and Jackson, 1986; Maslach et al., 1996) has been the tool that was most commonly used tool which have been used in more than 90% of studies all over the world (Maslach & Jackson, 1981). Burnout measure (BM) was second popular among burnout tools (BM; Pines and Aronson, 1981, 1988) as cited by Schaufeli in his study on clinical validity of MBI and BM in 2001. MBI measures of 3 components of burnout. They are emotional exhaustion, depersonalization, and personal accomplishment. BM measures core elements of burnout namely physical, emotional, and mental exhaustion. Schaufeli in 2001 in his study describes the internal consistency and factorial validity of the MBI and the BM, while analyzing the clinical validity of both burnout instruments(Schaufeli et al., 2001) .

Kristensen in 2005 in his paper criticizes MBI and develops a new tool for measurement of burnout: The Copenhagen Burnout Inventory (CBI). In this article Kristensen argues that some questions in MBI can only be answered by individuals who do "people work" though Maslach states (Maslach & Jackson, 1981) burnout is not only for human service sector. Kristensen also argues that if the simultaneous occurrence of 3 components MBI, emotional exhaustion, depersonalization, reduced personal accomplishment characterizes burnout whether it is correct to measure them independently. Kristensen says it's arguable whether "personal accomplishment "is actually a measure of burnout or a consequence of burnout and whether "depersonalization" is actually a coping strategy for burnout. The questions in MBI were considered unacceptable by the participants in Kirstensen study probably because of the cultural differences in the countries. MBI was developed in USA and Kirsten attempts to use it in Denmark. Another problem he points out is that the MBI questionnaires are not available

in public domain and is commercially distributed with preserved copyrights restricting its use to affordable parties.(Kristensen et al., 2005)

Copenhegan Burnout Inventory (CBI)

CBI is made up of three scales which measure personal burnout, work related burnout and client related burnout. It was first used by Kristensen at the "Project on Burnout, motivation and job satisfaction" also called the PUMA study in Denmark. It was found to have satisfactory reliability and validity and has been used in many countries up to now in including Sri Lanka (Pathiraja et al., 2016) .

The three sub scales of CBI are:

- Personal burnout: Consisting of six questions measuring physical and psychological fatigue experienced by a person regardless of participating in work.
- Work related burnout: Consisting of seven questions measuring degree of physical and psychological fatigue related to work.
- Client related burnout: Consisting of six questions measuring degree of physical and psychological fatigue related to work.

Burnout and Nurses

In 2006 Quattrin did a study on "Level of Burnout among Nurses working in Oncology in an Italian Region" to estimate the level of burnout and identify risk factors for burnout in nurses working in an oncology ward. Association of burnout was seen with lack of organization and management of the work in the ward. Perceived stress was buffered by individual coping strategies which in turn reduced occurrence of burnout. It also emphasizes the importance of health workers focusing on their own peace of mind and health(Quattrin et al., 2006) .

Investigation of factors influencing burnout levels in the professional and private lives of nurses was conducted by Demir (2003) with the participation of 333 nurses. It found that childcare burden, household burden, economic hardships, transportation difficulties, poor cooperation, poor work conditions, night shifts increase burnout whereas education, work experience reduce the incidence of burnout (Demir et al., 2003).

A study was conducted by Samaranayake (2010) with the objective of determining the prevalence, correlates of burnout and find the association of burn out with performance among nursing officers working in government teaching hospitals in Colombo. Translated version of MBI was used to measure burnout. The prevalence study was conducted in a sample of 1396 nurses and the adjusted prevalence for overall burnout was 26.3%. In paediatric wards, intensive care units it was 34% but in outpatient department it was only 6.7% with a statistically significant difference. In multivariate analysis work related correlates like nursing experience, work environment factors, work pattern factors, work demand work resource factors and personal factors like monthly income showed a significant association. Nursing performance was negatively correlated with high emotional exhaustion and low personal accomplishment. Author claims that burnout was not an important

occupational health problem in Sri Lankan nursing officers in government teaching hospitals (Samaranayake, 2010). Nursing performance in this study was not measured objectively and may not give the real association between burnout and performance. Behavioral correlates like locus of control, hardiness, coping strategies were not considered in this study. The negative correlation between performance and burnout might have been result of these behavioral factors.

Duquette, in 1994 in his extensive literature review studied thirty-six research and broadly identified 15 variables under organizational stressors, socio-demographic stressors and buffering factors. While role ambiguity and workload were found to be related to burnout, time spent with patients, specific units did not seem to be related. Professional burnout seems to be influenced by personal factors as well. Younger nurses were more prone for burnout than the older ones. Sex, Marital status, childcare burden, education did not show a strong correlation. Buffering factors like hardiness, social support, coping strategies shows a strong correlation and has exert a protective role against burnout (Duquette et al., 1994).

P. Holdren(2015) in his extensive literature review identify work environment related factors such as Low patent to nurse ratios, better management, higher pay, shorter shifts as key factors associated with burnout.

In the neighboring country India Divinakumar K, in 2014 performed a study involving 603 government nurses on "perceived stress, psychological well-being and burnout among female nurses working in government hospitals". The tool employed to measure burnout was the CBI. Prevalence of burnout was found to be less than that of western countries, age and years of experience were negatively correlated with burnout. Work environment, work load, work demand were significantly correlated to burnout (J et al., 2014).

Burnout and Mental health nurses

There are many studies done on mental health nurses all over the world, but the author was unable to find any publication done on burnout in nurses working in mental health setting in Sri Lanka.

"Burnout is rarely assessed as part of a comprehensive model of occupational stress" says Kilfeder who sees it as a short coming of the systems and try to stress its importance in her research done in 2001 involving 510 psychiatric nurses from a Scottish trust. The MBI was used to measure burnout. The psychiatric nurses in this study showed significantly low levels of emotional exhaustion, depersonalization, and low levels of personal accomplishment than a normative group of physicians and nurses. Only 20 % the sample had high burnout. Role conflict, nursing stressors, non-occupational concerns increased emotional exhaustion whereas work predictability, job security, social support, job satisfaction decrease it. Depersonalization was positively correlated with negative affectivity and negatively correlated with predictability of job-related events. Overall burnout was more common among young and recently qualified nurses. Depersonalization was more common among males. Feeling of personal accomplishment in these nurses were increased by the control over work and positive affectivity and was low among the shift workers (Power et al., 2001) .

In 2005, Goalder does a systemic review of literature to identify prevention strategies for stress and burnout in mental health nurses emphasizing the its importance to increase recruitment and retention of mental health nurses which has become a problem in Australia (MHCAet al., 2005). The three

main strategies identified were clinical supervision, psychosocial intervention, and social support. Out of the three, clinical supervision proved to be the best (Goalder, 2005).

In her publication J. Barling, a mental health nurse says that mental health nurses are commonly prone for stress and burnout, and it has major impact on quality of care delivered. Literature review done has revealed many stressors that were specific for psychiatric nurses.

S. Hamaideh (2011) claims that mental health nursing is a field where burnout is prevalent and in turn it affects organization and the clients. The study was done to measure the levels of burnout and identify correlates in Jordanian mental health nurses. The study revealed that poor work conditions, unsafe work environment, low job satisfaction, low support in workplace result in high emotional exhaustion and depersonalization leading to high job turnover. Hamaideh (2011) stresses the importance of timely intervention by administrators in improvement of the working environment and capacity building of the staff in stress management. Similar relationship with burnout in psychiatric nurses and organizational environment was found in the article "Relationship between Psychiatric Nurse Work Environments and Nurse Burnout in Acute Care General Hospitals" (Hanrahan et al., 2010)

Systematic Review done by Morse (2012) on 'Burnout in mental health services' examine the prevalence and associated factors. Study identifies that prevalence of burnout among mental health workers lie between 21%- 67% in the studies that were reviewed(Morse et al., 2012) .

Research Problem

Stress and burnout are acknowledged as being both widespread and problematic within the nursing profession"(Health & Advisory, 2003). International studies have shown the prevalence of burnout ranged from 30% to 80% in different work settings (Tay et al., 2014). If nurses working in a health care institution are affected by burnout it will directly reflect on the health care service provision of the institution and will be a negative force in achieving organizational goals.

Objectives

To assess the level of burnout among nurses working in National Institute of Mental Health, Sri Lanka

Materials and methods

Descriptive cross-sectional study was conducted to describe the prevalence of burnout in the National Institute of Mental Health Sri Lanka, which is the largest tertiary care hospital in Sri Lanka specialized in psychiatric care. It includes the main hospital and the Halfway home. The study population comprises of 447 nursing officers including 3 special grade nursing officers and 4 sisters. There are 382 nurses allocated to the main hospital and 66 nurses allocated to the halfway home, Mulleriyawa. Out of the total 447 nurses, 36 are male nurses.This study was carried out from October 2017 to October 2018. Study population consisted of all the nurses working in National Institute of Mental Health, Sri Lanka. Nurses who were currently employed, who have worked there for more than 6 months were included in the study.

Instrument used for the study was a self-administered questionnaire adopted by the validated, pre tested questionnaires used in two Sri Lankan studies by Samaranayake (2010) and Pathiraja(2012).

The questionnaire was prepared in English and translated to Sinhala, and Tamil using translation and back translation methodology. This includes the translated version of Copenhagen Burnout Inventory (CBI-S) which has been validated to Sri Lanka (Pathiraja et al., 2016). As recommended by authors of CBI (Kristensen et al., 2005) the CBI questions have been incorporated and mixed with the other questions in the questionnaire. SPSS version 17 statistical package was used for data analysis

Burnout was be calculated according to the marking scheme of the CBI 40.16 points of overall burnout would be taken as the cut off value. The CBI was translated and validated by Pathiraja (2012) involving hospital midwives. Hospital midwives and nurses are two categories which associate with patients with similar intensity and closeness and the CBI was not developed for a particular occupation. Therefore, using the same cutoff which was determined for the previous study could be justified. The validated cut off point was used to identify nurses as having or not having burnout. The prevalence of burnout among nurses working in NIMH was calculated with the 95% confidence intervals.

Permission was taken from director NIMH to carry out the research in NIMH. Ethical clearance was obtained by the Ethical Review Committee, NIMH.Nurses' participation in this study was voluntary and they had the freedom of not participating or withdrawing from the study at any time without explanation. Anonymity and confidentiality were maintained throughout the study.

Results and Discussion

Out of the 447 nurses allocated to main hospital and halfway home, 78 nurses were excluded from the study due to maternity leave, foreign leave and training. 24 nurses were engaged in non-clinical duties. Number of nurses eligible for the study was 346. Out of which, 296 (85.5%) responded.

Personal details

According to table 3.1.1, Majority of nurses at NIMH (88.6%) were below the age of 35. It was consistent with the age structure of nurses in tertiary care hospitals in Colombo where 66.3% of the nurses were in that age group (Samaranayake, 2010). Majority (91.1%) of the participants was females and demonstrates the female dominance in the profession. Out of the 296 respondents 73% were married and 25.57% unmarried. Education qualifications were assessed by their highest educational achievement other than basic nursing training. 81.8% had diplomas and it is a much higher number compared to the 20.1% which was reported among nurses in tertiary care hospital in 2010 (Samaranayake, 2010) and shows clear evidence of their increasing interest on career development yet only 3.3% had undergraduate degrees and no post graduate education. Majority (57.4%) had a monthly income of less than Rs.50,000/= probably since most nurses were young and therefore new to the profession.

Table 3.1.: Personal details

Personal details		Number	%
Age (yrs)	26-30	162	54.7
	31-35	72	24.3
	36-40	16	5.4
	41-45	12	4.0
	46-50	10	3.3
	51-55	22	7.4
	56-60	2	0.67
Sex	Female	272	91.1
	Male	24	8.9
Marital Status	Unmarried	76	25.7
	Married	21 6	73.0
	Widowed/Separated	4	1.3
Educational level	Passed GCE A/L	44	14.9
	Diploma	242	81.8
	Degree	10	3.3
	Post graduate degree	0	0.0
Monthly income	<49,999	170	57.4
	50,000- 74,999	98	33.1
	75,000 – 99,999	20	6.8
	>100,000	8	2.7
Self assessed health status	Excellent	22	7.4
	Good	126	42.6
	Fair	140	47.3
	Poor	6	2.0
	Very poor	2	0.7
	Total	296	100.0%

Family details of the nurses working at NIMH

As summarized in table 3.1.2. Majority of the nurses in NIMH were married and had children. Out of them a majority had children who were less than 5 years and a few of them had to take care for dependent relatives. Majority of them only had a family income of less than Rs.75,000. These findings were compatible to the age structure of the nurses in NIMH and most of them despite being young had a certain level of childcare and household burden.

Table 3.2 Family details of the nurses at NIMH

Family details	Number	%
Having Children (excluding unmarried)		
No children	82	36.3
2 or less	122	54.0
3 or more	22	7.4
Age of children (married women with children)		
Having children of age <5	98	68.1
Not having children of age<5	46	31.9
Caring for dependent relative		
Yes	52	17.8
No	240	82.2
Monthly family income		
< Rs. 75,000	98	77.8
> Rs. 75,000	28	22.2

Work related details of nurses

Table 3.1.3 Work related details of the nurses at NIMH

Work details	Number	%
Nursing experience		
1-5yrs	190	64.2
5- 10 yrs	46	15.5
11-15 yrs	20	6.8
16-20 yrs	10	3.4
>20yrs	30	10.1
Years of Experience at NIMH		
1-5yrs	198	66.9
6-10yrs	48	16.2
11-15yrs	18	6.1
16-20yrs	14	4.7
>20yrs	18	6.1
Nursing Grade		

Grade III	194	66.0
Grade II	68	23.1
Grade I	14	4.8
Supra	18	6.1
Special training received		
None	214	72.3
Post basic psychiatry nursing	42	14.2
Inservice training	26	8.8
Non psychiatry training	14	4.7
Accommodation for work		
Own house/ parents' house	124	41.9
Hospital quarters	26	8.8
Rented rooms/ rented houses	146	49.3
Living with family		
With family	194	65.5
Alone	102	34.5
Distance to work place from permanent residence		
Less than 49km	102	34.5
50 – 99 km	34	11.5
>100km	160	54.1

As shown in table 3.3 majority (64.2%) of the nurses were nurses with less than 5 years of experience and 66.9% of them had less than 5 years' experience at NIMH. Most (66%) of them were Grade III nurses. Only 14.2 % had had the opportunity of following the post basic psychiatry training where most (72.3%) of them had not had any form of training after the basic nurses training. Majority (54%) had their permanent residence more than 100km away from the working place but only 8.8% had quarters given by the hospital and 49.3% of them were coming to work from rented rooms or rented houses. Out of all the nurses 65.5% stayed with their family.

Prevalence of burnout

Table 3.4.1: Prevalence of burnout

Prevelance of burnout	No	%	Confidence Interval
According to cut off point in CBI- S (40.16)	94	31.8	30.05 – 33.55

According to table 3.4.1: the number of nurses who had burnout were 94. Therefore the prevalence of burnout among nurses working in NIMH was 31.8% with a 95% CI of 30.5% - 33.55%.

The true number of cases according to validity measures of the CBI-S

The number of psychiatric = 94 x Positive predictive value/ sensitivity

nurses with burnout 94 x 80.5/94.3 = 80.24

Adjusted prevalence = 80.24/296 = 27.1

Adjusted prevalence of burnout was 27.1 %

Table 3.4.2: Descriptive statistics of the scores of the CBI–S

Burnout status	Mean	SD	95% CI
Personal Burnout	40.7489	18.76663	38.60 - 42.90
Work related Burnout	29.2480	17.76155	27.22 - 31.28
Client related Burnout	29.5295	16.97995	27.59 - 31.47
Total Burnout	33.25	14.9835	31.53 - 34.96

According to table 3.4.2 Highest mean score was seen in the component of Personal burnout which is 40.75 with a SD of 18.76. Work related and client related burnout had a mean score of 29.24 and 29.53 respectively with a mean total score of 33.25 with a SD of 15.

Prevalence of burnout has been studied all over the world among employees in human services occupations, especially involving health care workers. De Silva (2007) did a burnout study using MBI on primary school teachers in the southern province and estimated a prevalence of 11.56%. The study done by Samaranayake (2010), using MBI - HSS revealed an adjusted prevalence of 27.7% among nurses working in tertiary care hospitals in Colombo. Pathiraja (2016) in his research found that adjusted prevalence of burnout in public health midwives in western province to be 25.2%. The prevalence of burnout among nurses working in NIMH was 31.8% with a confidence interval of 30.05 - 33.55, with a adjusted prevalence of 27.1%. It did not show a statistically significant difference with the prevalence of burnout in nurses working in tertiary care hospitals in Sri Lanka ($p = 0.17$). In a Japanese study, prevalence of burnout among psychiatric PHNS were reported as 59.2% (Imai et al.,2006) .A systematic review done in 2012 mentions that burnout of mental health workers lie between 21% to 67% (Morse et al., 2012). systematic review and meta-analysis by Isabel Marıa Lopez-Lopez et al. assessed Prevalence of burnout in mental health nurses. In the eleven studies included most cases, informs about moderate levels of emotional exhaustion, depersonalization, and personal accomplishment. The meta-analytic prevalence estimations of burnout with a sample of n = 868 mental health nurses are 25% for high emotional exhaustion, 15% for depersonalization, and 22% for low personal accomplishment. López-López, I.M. et al.,2019). Therefore, it can be argued that the

burnout levels at NIMH does not show a very high prevalence compared to psychiatric nurses working in other countries which has more developed health care systems than Sri Lanka.

Conclusions and Recommendations

The adjusted prevalence of burnout in nurses working at NIMH was 27.1%. Prevalence of burnout in Nurses working at NIMH were not significantly different from that of nurses working in tertiary care hospital in Sri Lanka.Means of personal, burnout was higher than that of work related and client related burnout.

This study was limited to the nurses working in NIMH therefore it cannot be generalized to all the nurses in Sri Lanka or even to nurses working in other psychiatry settings in Sri Lanka. Data collected were self-reported and may have resulted in information bias. The response rate for the study was only 85%. The cut off marks to assess burnout and non-burnout status was taken from a Sri Lankan study which validated CBI –S involving hospital based PHM's. This might not have given the true burnout level of nurses. The MBI which was validated to Sri Lankan nurses, and was more accepted as a tool for measuring burnout was not used as it was not freely available in the public domain.

Since the presence of burnout was seen in more than a quarter of nurses, steps such as having a dedicated mentor for each employee and organizing counseling sessions should be taken for the betterment of affected nurses. It is important to plan and carry out prevention programmes to strengthen coping strategies and management of stress.

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