



Burnout of Sri Lankan prison officers: exploring the prevalence and correlates

Nimali Wijegoonewardene ^{a,1*}, Janaki Vidanapathirana ^{a,2}

^a National STD/AIDS Control Programme, Ministry of Health, Sri Lanka.

¹ Present affiliation: Ministry of Health, Sri Lanka.

² Present affiliation: National Cancer Control Programme, Sri Lanka.

*Corresponding author Email: Dr. Nimali
Wijegoonewardene. Ministry of Health, Sri Lanka.
Email: nimali7@hotmail.com

DOI: <https://doi.org/10.54448/mdnt2211>

Received: 10-28-2021; Accepted: 10-29-2021; Published: 11-01-2021

Abstract

Background: High work demands and low work resources predispose employees to occupational burnout. Burnout of Sri Lankan prison officers has not been studied previously. Prison guards and prison rehabilitation officers are the staff categories who come into regular and direct contact with prison inmates.

Aim: The study aimed to describe the prevalence of burnout and its three sub-domains in Sri Lankan prison officers and to explore the personal and work-related correlates of their burnout. **Methods:** An institution-based cross-sectional study was carried out in 2017, among 1803 prison officers including 1683 prison guards and 120 prison rehabilitation officers working in 32 prison institutions island-wide. Prison guards were selected using multi-stage stratified sampling, while all the eligible Rehabilitation Officers were included. Self-administered, translated and validated Sinhala version of the Maslach Burnout Inventory – Human Services Survey and a self-developed questionnaire on correlates were used for collecting data. **Results:** The response rate was 98.53%. Majority of the participants were male (88%) and currently married (80.6%). True prevalence of burnout was 31.1% (95%CI:22.1-40.1). More than one third (37.8% - 95%CI:28.3-47.3) were suffering from diminished personal accomplishment, while over one fourth were suffering from emotional exhaustion (28.6% - 95%CI:19.7-37.5) and depersonalization (26.9% - 95%CI:18.2-35.6). Feeling overburdened by housework (OR-3.9,95%CI:1.6-9.3), working in closed prisons (OR-5.4,95%CI:1.3-21.7), remand prisons (OR-4.9,95%CI:1.2-19.3) and work camps (OR-6.7,

95%CI:1.6-28.4), perceived difficulty in shift work (OR-2.4,95%CI:1.4-4.0) and in taking leave (OR-2.8,95%CI:1.5-5.4), work overload (OR-2.1,95%CI:1.1-3.7), poor relationship with colleagues (OR-10.6,95%CI:1.1-103.3) and with families of inmates (OR-4.7,95%CI:1.4-16.0), poor welfare facilities (OR-3.8,95%CI:1.6-8.7) and job dissatisfaction (OR:14.3,95%CI:4.4-46.8) were associated with a higher risk for burnout. **Conclusion:** Burnout among prison officers is a significant issue requiring prompt interventions including basic and in-service trainings focusing on stress management.

Keywords: Burnout. Prison officers. Prison guards. Rehabilitation officers. Correlates.

Introduction

Burnout can be defined as 'a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding' [1]. Known to be a common concept among employed people [2], the concept of burnout has been researched on much. Burnout is known to occur due to chronic occupational stress, leading to lack of energy, withdrawal from work and emotional exhaustion among the previously well-engaged employees [3]. Freudenberg and Maslach were the first researchers to study independently about burnout in the mid-1970s, observing depletion of energy and emotional exhaustion in workers of different occupations related to human ser-

vices [2,4]. This concept of burnout has come a long way since, to become a well-established academic subject for discussion as well as an established medical diagnosis [2,5]. Various scales have been developed to measure burnout, various theoretical models have evolved to explain the concept better and various researches have been carried out to identify the causes and consequences of burnout [6].

In this context, burnout is a syndrome of emotional exhaustion and cynicism, occurring mainly among individuals engaged in 'people-work', and is described under three main dimensions [7]. Emotional exhaustion is the overwhelming exhaustion, depletion of energy and fatigue occurring during work. Depersonalization incorporates feelings of cynicism, withdrawal, irritability and inappropriate thoughts about the clients. Reduced personal accomplishment, the third dimension, implies low morale, inefficiency and incapability in the work [6]. Despite emotional exhaustion being considered the central point of burnout, by itself it cannot sufficiently explain the relationship people have with their work [8]. This gap is filled by the depersonalization sub-domain which explains the withdrawal and negative attitudes of the employees towards their clients [5] and the diminished personal accomplishment sub-domain dealing with reduced competence of the employees in performing the job, as perceived by themselves [9].

Also, many theories have also evolved around the concept of burnout. While some theorize that burnout is the end-result of being exposed to chronic job stressors, others believe that burnout occurs in the most idealistic workers who dedicate themselves too much to their work and get burned out when the sacrifices they make are not adequate to achieve their goals [8]. Three main models have explained the development of burnout in individuals, and the causal relationships between the three dimensions of burnout [10]. Leiter and Maslach (1988) [11] developed a model on the basis that chronic stress predisposes to burnout, and it explains how emotional exhaustion leads to depersonalization, and in turn depersonalization leads to diminished personal accomplishment. In contrary to this, in the phase model developed by Golembiewski and colleagues, excessive depersonalization leads to reduced personal accomplishment, and the emotional exhaustion occurs last as a result of the other two dimensions [10,12]. A third model has been introduced by Lee and Ashforth (1993) [13], which described excessive depersonalization to be arising from emotional exhaustion similar to the model by Leiter and Maslach but differing from it in introducing the phenomenon of

emotional exhaustion leading to reduced personal accomplishment independently without any effect from depersonalization [9,10].

Throughout the years, prevalence of burnout of has been assessed among employees engaged in various occupations. Since its development in the early 1980s [7], the Maslach Burnout Inventory has remained the most popular and most extensively used instrument to measure burnout among people working in human services, despite the development of other burnout scales. As implied by the Maslach Burnout Inventory – Human Services Survey, some studies have categorized the employees in to high and low levels, with regards to the three subscales of burnout separately, whereas others have come up with cut-offs for the total burnout score, to categorize the participants as 'burned out' and 'non burned out'.

Various factors related to the personal as well as work life have been identified to affect the level of burnout experienced by employees. With special emphasis on occupations related to human services, research has been carried out among employees of various occupations to identify the different factors associated with burnout [3,14,15]. High workload, lack of autonomy, underutilization of knowledge and skills, lack of variety, role problems, inadequate pay, demanding social contacts and work-family interference have been identified as work-related factors leading to burnout among employees of different professions [16,17].

Imprisonment is a method of punishment for criminal acts and prisons confine the individuals who have violated the laws that govern the larger society, against their will [18,19]. A prison officer is understood to be responsible for the security, supervision, training and rehabilitation of inmates sent to prison by the courts. In addition to that, they are also expected to establish and maintain positive working relationships with the inmates, through balancing authority with understanding and compassion, for making rehabilitation effective (<https://www.prospects.ac.uk/job-profiles/prison-officer>).

Working in a prison as a correctional officer is considered a stressful occupation [16]. It involves working with individuals whose freedom and liberty have been taken away. Many of these individuals are likely to be mentally disturbed, suffering from addictions, and having poor social and educational skills, while some are also aggressive [20]. Work in human services can be particularly complicated when the client is in contact with the organization against his will, and when the professional must help as well as control the client, which is the case in prisons [3]. According to literature on human services work, involvement with mal-functioning clients in

the 'people-changing' service category carries the highest workload [21] to which category prison staff belong. Taking into consideration the difficulty in getting the cooperation of their clients to provide services and rehabilitation, prison staff have a difficult task at hand in offering quality services to this special category of service recipients. Brower (2013) [22] states that the stress they encounter because of their occupation is a well-established threat to the wellness of correctional officers. This stress, when experienced long term, can affect them mentally, physically, as well as cognitively, and would lead to burnout among them [23,24].

Further, prison officers are mostly having negative feelings towards their role identity, due to the inconsistency between what they really demand from their job, and what they actually receive [23]. Despite these facts, in a context where inmates receive several interventions to cope up with the stress of their living environment, the correctional staff themselves lack resources to combat their work environment related stress [25].

In Sri Lanka, separate job categories are defined for the correction and rehabilitation services for the inmates, where the uniformed prison guards, prison sergeants and jailors are mainly involved in the security and correctional activities, while the non-uniformed rehabilitation officers are mainly involved in the rehabilitation activities of the inmates [26]. The combination of these two job categories has been designed for giving a holistic approach to the care of inmates while they are in prison, with a vision of 'social integration of inmates as good citizens through rehabilitation' (<http://prisons.gov.lk/web/en/about-us-en/>). The correctional officers mainly focus on the security and supervision of the inmates, with a minor role in their training and rehabilitation. Rehabilitation officers play the major role in training and rehabilitation of inmates. Correctional officers, while giving special emphasis on duties related to correction and security of the inmates, are also involved in registration of new entrants, escorting prisoners to courts and supervision during various industrial and other activities [27].

The duties assigned to them are in accordance with the Prisons ordinance 1877 of Sri Lanka. The role of the rehabilitation officers mainly focuses on reintegrating prison inmates to the society as good citizens through providing rehabilitation during prison life. In both job categories, except for the in-charge level officers, the others are directly and significantly in contact with the inmates, usually at a daily basis. The correctional officers who are most frequently in association with the inmates are the prison guards. They

encounter the prisoners daily, during their routine activities. Prison sergeants and jailors are mainly involved in in-charge level duties, except on special circumstances. Prison Rehabilitation Officers, or Welfare Officers as they were previously called, are a non-uniformed staff category serving both convicted and remand prisoners during their stay.

It is understood that low levels of burnout result in favorable outcomes and pro-social behaviours among correctional officers, such as greater support for rehabilitation, increased human-service orientation, decreased punitive orientation, increased satisfaction with life, and compliance with organizational rules and goals [28]. Studies have been conducted throughout the world on burnout of correctional officers and prison employees, which have revealed different levels of burnout among them [24,29,30,31]. Correlates for burnout among this occupation category have also been widely researched on, and both personal and work-related factors have been identified [24,25,29,32]. Even though there are studies on burnout in Sri Lanka conducted among other occupation categories, no studies were found to have been carried out among prison staff in Sri Lanka to assess their burnout or its correlates. Thus, this study was carried out with the intention of providing an insight into job burnout of Sri Lankan prison officers, as a timely step taken to address an unattended area.

The study thus aimed to determine the prevalence of burnout among Correctional and Rehabilitation Officers working in Sri Lankan prisons using a validated tool and to determine the personal and work-related correlates of burnout in them.

Methods

This was carried out as an institution based, cross-sectional study in 32 selected prison institutions in Sri Lanka, including closed prisons, remand prisons, work camps, open prison camps, facilities for youthful offenders and drug abuser inmates, and lock-ups. All correctional officers and rehabilitation officers working in Sri Lankan prisons fulfilling the eligibility criteria were taken as the study population.

Inclusion and exclusion Criteria

Correctional officers and rehabilitation officers working in Sri Lankan prisons, who have been working in the Sri Lankan prison setting for more than six months duration, were included in the study. Those who did not have direct and frequent contact with the inmates at least four days a week, those who were on maternity or other long-term leave at the time of data collection, those with

a diagnosis of a mental disorder at the time of the study and those who couldn't read and write in Sinhala language were excluded from the study. Sinhala is the most commonly used language in Sri Lanka, and the number of prison officers who couldn't communicate in Sinhala was confirmed to be a minimum number during prior discussions with prison officials.

Sample Size

The latest updated lists of the number of correctional and rehabilitation officers were obtained from the statistics division of the Prison Headquarters at the beginning of the data collection of the study in February 2017, and according to them, the number of correctional officers in the category of prison guards was 3831. The number of rehabilitation officers was found to be 128, all of whom had worked for more than six months. The following process was used in deciding the sample size for the study.

Rehabilitation Officers

As the number of rehabilitation officers was a minority compared to the number of correctional officers, it was decided to recruit all the rehabilitation officers working in the Department of Prisons at the time of data collection, who fulfilled the eligibility criteria for the study, excluding the two rehabilitation officers who were engaged in the pretesting procedure and the six rehabilitation officers who participated in the validation study of the study instrument (not described here).

Correctional Officers

According to the Lwanga and Lemeshow's (1991) equation [33], the minimum sample size required for the descriptive study component to explore the prevalence was 1708 after adding an anticipated non-response rate of ten per cent. For the analytical component, the calculated minimum sample size (Lwanga and Lemeshow, 1991) was 1424. Since this value was less than the sample size of 1708 used in the descriptive component, it was decided to use the value of 1708 for this component, too. Thus, 1708 correctional officers were selected as the sample size in addition to the 120 rehabilitation officers.

Selection of Prison Institutions

Since this was carried out as an island-wide study, efforts were taken to include all types of prisons across the country. In Sri Lanka, there are three closed prisons for convicted prisoners, where they are held normally under maximum security conditions. These are the prisons which housed the inmates on death senten-

ce and serving prison sentences more than six months of duration. One of them housed recidivists, who are the prisoners with more than two occasions of imprisonment. Thus, it was understood that if the prison officers working in these prisons were not included in the study, there would be a significant loss of valuable data. Therefore, all three of these prisons were purposively selected for the study. Remand prisons are closed Prisons reserved for remand prisoners, and there were nineteen remand prisons situated throughout the country at the time, and out of them nine were randomly selected. In addition to these, there are two open prison camps without perimeter walls, where selected prisoners are held under minimum security conditions. One of them were selected randomly. Five were randomly selected out of the nine functioning work camps in Sri Lanka which also have no perimeter walls, and short-term or medium-term offenders are held there under minimum security conditions. There are two correctional centers plus a training school for youthful offenders, who are between the age of 16 and 22 years. The training school was purposively included while one correctional centre was randomly selected out of the two. The drug rehabilitation centre where inmates with drug related offences are held and rehabilitated was also purposively selected. In addition to the above prison institutions, there were 22 functioning lock-ups around the country where prisoners are held for short periods of time, and eleven were selected randomly.

Selection of Correctional Officers

Multi-stage stratified sampling method was used in selecting the correctional officers for the study. The total sample was stratified by the different categories of prisons in Sri Lanka, resulting in six strata: closed prisons, remand prisons, work camps, open prison camps, facilities for youthful offenders and drug abuser inmates, and lock-ups. The number of correctional officers selected from each stratum was proportionate to the total sample of correctional officers from the selected prisons in each stratum. Once the number to be selected from the stratum was decided, it was divided among the selected prisons of each prison category, probability proportionate to the sample size of the number of correctional officers in each of those prisons. After the number to be selected from each prison was decided, the individuals to be selected for the study were selected randomly using random number generators, from lists of the correctional officers in each of the selected prisons, provided by the offices of the prisons in large prisons, and from the officer-in-charge of the lock-ups.

Study Instruments

The self-administered, Sinhala translated and validated modified version of the Maslach Burnout Inventory – Human Services Survey (MBI-HSS) was used for collecting data in the descriptive component. The MBI-HSS was translated and validated as the first stage of this study [34]. A self-administered questionnaire was also developed to assess the personal and work-related correlates of burnout. Judgmental validity, in terms of face validity, content validity and consensual validity, of the questionnaire was assessed, and it was translated to Sinhala language. Both questionnaires were pre-tested among correctional and rehabilitation officers prior to administration.

Data Collection

The principal investigator, along with two trained data assistants, visited the prisons on a pre-specified dates to collect data from the correctional officers. Some prisons had to be visited more than one day due to the large number of participants included. Prior administrative clearance was taken from the Prison Headquarters and they officially informed each prison institution about the study. The principal investigator also contacted the prisons prior to the visit and sought permission prior to data collection. At most of the prisons, a coordinating officer was provided to help in recruiting the selected correctional officers for the study. The participants were explained about the main objectives of the study, and what they were expected to do. Confidentiality was assured, and they were explained that they had the liberty to refrain from participating in the study. An information sheet was provided to each of them, and they were given adequate time to read it before consenting to the study. If the individual consented to participating, he/she was provided with a consent form to fill. Once informed consent was obtained, the participants were provided with the questionnaires. Instructions for completing the questionnaire were clearly mentioned at the beginning, as well as at the beginning of each question/group of questions, and in addition to that, the study assistants explained the instructions to them prior to administering the questionnaire. The participants were encouraged to ask any questions that arose while filling the questionnaire, and the study assistants, as well as the principal investigator, when necessary, answered them in a uniform manner. The participants were given adequate time to complete the questionnaire. The filled questionnaires were collected during that particular day, before the research team left that prison. All the collected questionnaires were ensured of their completeness by the study assistants, and then by the

principal investigator.

As the Superintendents of the prison institutions were informed beforehand by the Prison Headquarters to provide the fullest support for this study, the support provided by the prisons for the study and the response rate of the selected participants were at a high level. To collect data from the rehabilitation officers, the principal investigator and the study assistants visited an in-service training held for them in Colombo after taking prior permission for a session. Except for the rehabilitation officers who were involved in the pretesting procedures and those who participated in the validation study, all the other rehabilitation officers were invited to participate in the study. Similar procedures were followed in informing about the study and taking informed consent. All the eligible rehabilitation officers consented to participate.

Data Analysis

All the questions were coded before commencing the data entry process. Data entry and cleaning was done using the computer package 'Statistical Package for Social Sciences (SPSS) 23.0 version'. Apparent Prevalence of burnout, as well as the true prevalence of burnout was calculated with the 95% confidence interval, based on the cut-off value obtained in the validation study. For the analysis of correlates, the association between burnout and each correlate was analyzed using bivariate cross tabulations using SPSS, and the chi-square test was used to identify the significant correlates. Independent samples t-test used in instances where the dependent variable was continuous, and the non-parametric Mann-Whitney-U test was used when such continuous dependent variables had a non-normal distribution. Multivariate analysis was used to identify the un-confounded correlates of burnout and to identify the relative importance of the correlates of burnout. For this, significant correlates were entered into a Logistic Regression model and were subjected to multivariate analysis. In order to evaluate the association between these correlates and burnout, odds ratios were calculated with confidence intervals, using logistic regression.

Ethics Approval

Ethics approval for the study was obtained from the Ethical Review Committee, University of Kelaniya, Sri Lanka.

Results

The response rate for the study remained at a high value of 98.53% for the correctional officers, resulting from 1683 correctional officers participating in

the study. In addition to this, all the selected rehabilitation officers also participated for the study, bringing the total sample to 1803. There were no non-respondents among the rehabilitation officers. The basic socio-demographic characteristics of the prison

officers and their educational level are depicted in Table 1. A comprehensive description about their characteristics and the perceptions related to personal and work-life is published elsewhere [35].

Table 1. Basic socio-demographic characteristics of the study participants. *both correctional and rehabilitation officer participants are considered together.

Characteristic	Correctional Officers	Rehabilitation Officers	Total *
Age in Completed Years			
18-24	97(5.8%)	3(2.5%)	100(5.5%)
25-34	583(34.6%)	22(18.3%)	605(33.6%)
35-44	495(29.4%)	56(46.7%)	551(30.6%)
45-54	362(21.5%)	30(25.0%)	392(21.7%)
55 and above	146(8.7%)	9(7.5%)	155(8.6%)
Sex			
Male	1488(88.4%)	98(81.7%)	1586(88.0%)
Female	195(11.6%)	22(18.3%)	217(12.0%)
Ethnicity			
Sinhala	1651(98.1%)	115(95.8%)	1766(97.9%)
Tamil	22(1.3%)	3(2.5%)	25(1.4%)
Muslim	10(0.6%)	2(1.7%)	12(0.7%)
Highest Educational Qualification			
Ordinary Levels or below	46(2.7%)	0(0%)	46(2.6%)
Passed Ordinary Levels	182(10.8%)	6(5.8%)	189(10.4%)
Studied for Advanced Levels	474(28.2%)	12(10.0%)	486(27.0%)
Passed Advanced Levels	839(49.9%)	58(48.4%)	897(49.8%)
Diploma Holder	89(5.3%)	27(22.5%)	116(6.4%)
Degree Holder	53	16(13.3%)	69(3.8%)
Total	1683	120	1803

Burnout of the study participants was measured using the validated and modified version of the Maslach Burnout Inventory - Human Services Survey (MBI-HSS) containing eighteen items [34]. The descriptive statistics of the scores on burnout obtained from the study sample are depicted in Table 2. The mean MBI-HSS score for the study sample was 29.1 (S.E. = 0.38) with a standard deviation of 16.1. For the Emotional Exhaustion subscale,

the mean was 10.9 (S.E. = 0.19) with a standard deviation of 8.1. The mean score of the Depersonalization subscale was 3.4 (S.E. = 0.1), and the standard deviation was 4.0. For the Personal Accomplishment subscale which was reverse scored due to it inversely associating with burnout, the mean score was 14.8 (S.E. = 0.25) with a standard deviation of 10.8.

Table 2. Descriptive statistics of the scores obtained by the study participants for the MBI-HSS and its subscales. S.E. – Standard Error, S.D. – Standard Deviation, EE – Emotional Exhaustion, DP – Depersonalization, PA – Personal Accomplishment.

Scale	Correctional Officers				Rehabilitation Officers				Total Study Participants			
	Range	Mean	S.E.	S.D.	Range	Mean	S.E.	S.D.	Range	Mean	S.E.	S.D.
MBI-HSS	0-79	29.5	0.39	16.1	2-71	23.1	1.41	15.4	0-79	29.1	0.38	16.1
EE Subscale	0-36	11.0	0.2	8.1	0-32	9.5	0.69	7.6	0-36	10.9	0.19	8.1
DP Subscale	0-23	3.4	0.1	4.0	0-16	2.6	0.29	3.2	0-23	3.4	0.1	4.0
PA Subscale	0-48	15.1	0.26	10.8	0-43	11.0	0.93	10.2	0-48	14.8	0.25	10.8

Table 3 shows the proportion of correctional and rehabilitation officers identified as having burnout using the validated MBI-HSS. The cut-off values were decided based on the results of the validation study where the minimum area under the curve values were determined [34]. The apparent prevalence given in the table refers to the proportions of participants who scored a value above the cut-off value for the burnout score and the scores for the three sub-scales. The true prevalence values were calculated for burnout and its three subscales with the use of the sensitivity values and positive predictive values at the used cut-offs. As the true prevalence indicates the number of participants actually suffering from burnout or a particular dimension of burnout, the number of true positives needed to be calculated in this. The true prevalence was calculated by determining the proportion of the true positives in the sample for burnout and its subscales. The true prevalence of burnout, emotional exhaustion, depersonalization and diminished personal accomplish-

ment were 31.1 (22.1% - 40.1%), 28.6% (19.7% - 37.5%), 26.9% (18.2% - 35.6%) and 37.8% (28.3% - 47.3%), respectively.

Table 3. Burnout of the prison correctional and rehabilitation officers.

Entity	Cut-off value used	Correctional Officers		Rehabilitation Officers		Total Study Participants	
		Apparent Prevalence (95% CI)	True Prevalence (95% CI)	Apparent Prevalence (95% CI)	True Prevalence (95% CI)	Apparent Prevalence (95% CI)	True Prevalence (95% CI)
Burnout	≥36.5	33.7 (24.4-43.0)	31.8 (22.7-40.9)	21.7 (13.7-29.7)	20.8 (12.9-28.7)	32.9 (23.7-42.1)	31.1 (22.1-40.1)
Emotional Exhaustion	≥14.5	29.3 (20.6-38.0)	28.9 (20.0-37.8)	24.2 (16.0-32.4)	23.3 (15.0-31.6)	29.0 (20.0-38.0)	28.6 (19.7-37.5)
Depersonalization	≥5.5	28.4 (19.6-37.2)	27.5 (18.7-36.3)	20.0 (12.2-27.8)	19.2 (11.5-26.9)	27.8 (19.0-36.6)	26.9 (18.2-35.6)
Diminished Personal Accomplishment	≥16.5	42.1 (32.5-51.7)	39.0 (29.5-48.5)	23.3 (15.1-31.5)	21.7 (13.7-29.7)	40.9 (31.3-50.5)	37.8 (28.3-47.3)

The personal and work-related correlates as identified in the literature and during communication (unstructured interviews) with the officials in the Department of Prisons were assessed through bivariate analysis using SPSS 23.0, to see whether they were having an association with the burnout of the prison officers. In the bivariate analysis, some of the assessed personal and work-related correlates showed significance ($p < 0.05$). These included the following: age of the participants ($p = 0.011$), marital status ($p < 0.001$), presence of a chronic disease ($p = 0.021$), own monthly income (0.01), frequency of being burdened by housework ($p < 0.001$), family life adversely affecting work-life ($p < 0.001$), category of prison ($p < 0.001$), work experience ($p = 0.001$), carrying an official weapon at work ($p = 0.001$), hours of duty per week ($p = 0.001$), engaging in shift work ($p = 0.035$), number of night shifts per month ($p < 0.001$), perceptions about - shift work ($p < 0.001$), ability to take leave ($p < 0.001$), number of leave ($p < 0.001$), welfare facilities at work ($p < 0.001$), adequacy of staff in the Unit ($p < 0.001$), amount of work ($p < 0.001$), finding the job to be dull and boring ($p < 0.001$), ability to take decisions in the own job ($p < 0.001$), ability to influence the work team ($p < 0.001$), ability to influence higher departmental policies ($p < 0.001$), utilization of basic training ($p < 0.001$) and continuous training ($p < 0.001$) during daily duties, having a clear idea about duties ($p < 0.001$), frequency of performing conflicting tasks ($p < 0.001$), job security ($p < 0.001$), career development ($p < 0.001$), extra learning ($p < 0.001$), relationship with colleagues

($p < 0.001$), inmates ($p < 0.001$), superiors ($p < 0.001$), families of inmates ($p < 0.001$) and external authorities working in the prison ($p < 0.001$), perception that incompetence is displayed by getting support from colleagues ($p < 0.001$), perception that the job doesn't expect regular interactions with colleagues ($p < 0.001$), lack of communication with superiors ($p < 0.001$), inadequate support ($p < 0.001$) and feedback ($p < 0.001$) from superiors, unfair harassment ($p < 0.001$) and discrimination ($p < 0.001$) from superiors, no consideration for their views ($p < 0.001$), type of prisoners associating with ($p = 0.014$), perception on inmates ($p < 0.001$), receiving assistance from inmates to perform duties in the job ($p < 0.001$), perception on salary and allowances ($p < 0.001$) and perception on salary and allowances in relation to work done ($p < 0.001$), social status ($p < 0.001$), own view ($p < 0.001$) and view of the family ($p < 0.001$) on the job, perception on view of inmates on the job ($p < 0.001$), work-life adversely affecting family life ($p < 0.001$) and overall job satisfaction ($p < 0.001$).

In addition to these, satisfaction on aspects related to family life, aspects on work environment and aspects related to variety of work were combined into total scores and the associations were assessed using Mann-Whitney U test and t-test. All three scores proved to be significantly associated with burnout in the bivariate analysis ($p < 0.001$). Three components of emotional labour were also assessed as correlates through nine categories and using non-parametric Mann-Whitney U test due to non-normal distribution. Seven of the categories were significantly associated with burnout and this is discussed elsewhere [35].

Following the bivariate analysis of the personal and work-life correlates, multivariate analysis of the correlates was carried out using multiple logistic regression to adjust for the confounding effects. SPSS 23.0 was used for this purpose. Independent variables were the correlates found to be displaying statistical significance at $p < 0.05$ level in the bivariate analysis, which were considered to be having a significant association with burnout. The dependent variable was the burnout status decided according to the cut-off value determined for the total score of the MBI-HSS. The burnout status was coded, where '1' was given for the presence of burnout and '0' was given for absence of burnout. It was assured that the independent variables did not have high level correlations with each other, where the highest correlation was 0.742. Thus, all the significant variables were retained to be included into the logistic regression model. As some of the categorical independent variables had less than five in number in more than 20% of the cells in cross-tabulation, those were re-coded by combining categories used in the bivariate analysis.

As this regression analysis was not carried out on a specified existing model on correlates, the method in the logistic regression was decided as entry method followed by backward stepwise binomial logistic regression. All the variables were entered into the model. At each step, backward elimination was done until all the variables retained in the model were beyond the elimination criteria. Omnibus test was conducted, to ensure that, at the end of each step, as well as the final model, was statistically significant at the 0.05 level. Wald test statistic was also significant ($p < 0.001$), which confirmed the significance of the individual logistic regression coefficients. The final model showed a chi square value of 465.108 with a p -value of < 0.001 , indicating that the final model with its independent predictors, was significant at the $p < 0.001$ level.

The Cox and Snell R^2 value and the Nagelkerke R^2 value were also calculated for each step and the final model, to predict the variance explained by the model to a certain extent, in the absence of a R^2 statistic. The final model explained 47.2% of the variance in burnout in the sample, based on the Nagelkerke R^2 value of 0.472. The final model with its variables, depicting the logistic regression coefficients, odds ratios with 95% confidence intervals, and the significance of the odds ratios are summarized in Table 4. Twenty-five variables were retained in the final model. The retained variables included both personal as well as work-life correlates. Age, marital status, own monthly income, burdened by housework and family life adversely affecting work-life

were the personal correlates retained in the final model. Category of prison, work experience, perception on shift work, perception on ability to take leave, perception on welfare facilities, amount of work, ability to influence departmental policies, utilization of basic training, job found to be dull and boring, role ambiguity (conflicting roles), relationship with colleagues, relationship with families of inmates, perception of inmates on the job, inadequate feedback from superiors, job security, overall satisfaction about the job, work environment, two categories of emotional labour which were faking emotions with colleagues and deep acting with superiors were the work-life correlates retained in the model. Further, the perception on 'getting support from colleagues shows incompetence' was also retained in the model as a work-life correlate

Table 4. Parameter estimates and their significance in the final model for assessing the association between burnout and its correlates in the study participants.

	B	S.E.	Wald	Df	Sig.	Exp (B)	95% C.I. for Exp(B)	
							Lower	Upper
1.Age in Completed Years			12.174	4	0.016			
25-34 years	-0.139	0.344	0.164	1	0.685	0.870	0.444	1.706
35-44 years	0.096	0.405	0.057	1	0.812	1.101	0.498	2.434
45-54 years	0.089	0.458	0.038	1	0.846	1.093	0.445	2.684
55 years or more	1.345	0.553	5.908	1	0.150	3.839	1.298	11.360
2.Marital Status			21.008	2	<0.001			
Currently married/cohabiting	-1.113	0.251	19.630	1	<0.001	0.328	0.201	0.538
Separated/divorced/widowed	0.363	0.949	0.147	1	0.702	1.438	0.224	9.234
3.Own Monthly Income			12.662	3	0.005			
<20000SLR	-0.214	0.988	0.047	1	0.828	0.807	0.116	5.599
20000-40000 SLR	-0.765	0.909	0.708	1	0.400	0.465	0.078	2.763
40001-60000 SLR	-1.401	0.922	2.308	1	0.129	0.246	0.040	1.501
4.Burdened by Housework			16.762	5	0.005			
Rarely	0.119	0.218	0.300	1	0.584	1.127	0.735	1.726
Seldom	0.665	0.242	7.534	1	0.006	1.945	1.210	3.128
Often	1.081	0.681	2.516	1	0.113	2.946	0.775	11.199
Very often	1.358	0.444	9.350	1	0.002	3.887	1.628	9.280
Almost daily	.418	0.744	0.317	1	0.574	1.520	0.354	6.527
5.Family Work Conflict			5.865	2	0.053			
Yes	0.574	0.242	5.612	1	0.018	1.776	1.104	2.855
Don't know	0.250	0.248	1.015	1	0.314	1.284	0.789	2.090
6.Category of Prison			12.351	5	0.030			
Closed Prisons	1.687	0.709	5.661	1	0.017	5.404	1.346	21.693
Remand Prisons	1.581	0.703	5.058	1	0.025	4.857	1.225	19.257
Work Camps	1.899	0.739	6.613	1	0.010	6.682	1.571	28.419
Open Prison Camps	1.469	0.850	2.986	1	0.084	4.347	0.821	23.014
Lock-ups	0.890	0.749	1.412	1	0.235	2.436	0.561	10.575

7.Work Experience			12.333	5	0.030				
1 to 5 years	0.150	0.591	0.064	1	0.800	1.162	0.364	3.702	
>5 to 10 years	0.447	0.596	0.563	1	0.453	1.564	0.486	5.029	
>10 to 20 years	0.729	0.615	1.409	1	0.235	2.074	0.622	6.916	
>20 to 30 years	-0.231	0.672	0.118	1	0.731	0.794	0.212	2.965	
>30 years	-0.328	0.728	0.203	1	0.653	0.721	0.173	3.002	
8.Perception on Shift Work			14.527	3	0.002				
Rarely find it difficult to adjust	0.590	0.198	8.914	1	0.003	1.805	1.225	2.659	
Sometimes find it difficult to adjust	0.857	0.274	9.823	1	0.002	2.357	1.379	4.029	
Most of the time find it difficult to adjust	0.764	0.482	2.511	1	0.113	2.147	0.834	5.525	
9.Ability to Take Leave			11.177	3	0.011				
Difficult to take leave due to no cover-up	0.009	0.196	0.002	1	0.964	1.009	0.687	1.482	
Cannot take leave even for an urgent need	1.038	0.330	9.889	1	0.002	2.824	1.479	5.395	
Problem attitude of the approving officer	0.008	0.295	0.001	1	0.977	1.008	0.566	1.798	
10.Welfare Facilities			12.063	4	0.017				
Very poor	1.329	0.427	9.704	1	0.002	3.776	1.637	8.711	
Poor	0.569	0.240	5.602	1	0.018	1.766	1.103	2.829	
Satisfactory	0.298	0.267	1.245	1	0.26	1.347	0.798	2.272	
Excellent	0.398	0.391	1.034	1	0.31	1.489	0.692	3.205	
11.Amount of Work			5.727	2	0.057				
Tolerable amount	0.468	0.269	3.027	1	0.082	1.597	0.943	2.706	
Overloaded	0.730	0.305	5.724	1	0.017	2.076	1.141	3.776	
12.Ability to Influence Department Policies			9.556	4	0.049				
Good	0.301	1.265	0.057	1	0.812	1.352	0.113	16.128	
Satisfactory	0.716	1.242	0.333	1	0.564	2.046	0.180	23.328	
Poor	0.216	1.248	0.030	1	0.862	1.242	0.107	14.345	
Very poor	-0.041	1.253	0.001	1	0.974	0.960	0.082	11.188	
13.Utilization of Basic Training			8.689	4	0.069				
Good	0.058	0.304	0.036	1	0.849	1.060	0.584	1.923	
Satisfactory	0.468	0.314	2.220	1	0.136	1.597	0.863	2.958	
Poor	0.782	0.408	3.677	1	0.055	2.185	0.983	4.859	
Very poor	-0.348	0.730	0.227	1	0.634	0.706	0.169	2.953	
14.Job Found to be Dull and Boring			13.622	4	0.009				
Rarely	0.275	0.223	1.525	1	0.217	1.317	0.851	2.038	

15. Having a Clear Idea about the Job			6.541	2	0.038			
Sometimes unsure	0.460	0.201	5.255	1	0.022	1.584	1.069	2.346
Most of the time unsure	0.705	0.507	1.939	1	0.164	2.025	0.750	5.466
16. Relationship with Colleagues			4.559	3	0.207			
Good	-0.069	0.260	0.070	1	0.791	0.933	0.561	1.554
Satisfactory	-0.005	0.291	<0.001	1	0.987	0.995	0.563	1.759
Poor or very poor	2.360	1.162	4.121	1	0.042	10.587	1.085	103.330
17. Relationship with Families of Inmates			8.861	4	.065			
Good	0.824	0.583	2.001	1	0.157	2.281	0.728	7.146
Satisfactory	1.073	0.576	3.464	1	0.063	2.923	0.945	9.046
Poor	1.542	0.629	6.010	1	0.014	4.675	1.362	16.039
Very poor	1.228	0.697	3.108	1	0.078	3.414	0.872	13.370
18. Perception of Inmates on the Job			10.252	3	0.017			
Scared of us, but not much respect	0.633	0.232	7.415	1	0.006	1.883	1.194	2.969
They think we have no say, thus there is no respect	0.641	0.363	3.113	1	0.078	1.898	0.931	3.867
They despise us and our occupation	0.656	0.508	1.667	1	0.197	1.928	0.712	5.221
19. Getting Support from Colleagues Shows Incompetence	0.659	0.285	5.336	1	0.021	1.933	1.105	3.383
20. Inadequate Feedback from Superiors	-0.361	0.196	3.377	1	0.066	0.697	0.474	1.024
21. Job Security			11.472	3	0.049			
Feel insecure sometimes	-0.779	0.259	9.076	1	0.053	0.459	0.276	0.762
Feel insecure most of the time	-0.380	0.285	1.784	1	0.182	0.684	0.391	1.195
No idea	-0.182	0.435	0.176	1	0.675	0.833	0.356	1.953
22. Overall Satisfaction about the Job			23.825	4	<0.001			
Somewhat satisfied	0.523	0.259	4.080	1	0.043	1.688	1.016	2.804
Not satisfied nor unsatisfied	0.825	0.263	9.849	1	0.002	2.282	1.363	3.822
Somewhat unsatisfied	2.660	0.605	19.340	1	<0.001	14.290	4.368	46.752
Very much unsatisfied	2.310	1.352	2.921	1	0.087	10.077	0.713	142.503
23. Work Environment Score	0.037	0.019	3.878	1	0.049	1.037	1.003	1.076
24. Faking Emotions with Colleagues	0.089	0.035	6.406	1	0.011	1.093	1.020	1.172
25. Deep Acting with Superiors	-0.116	0.027	18.367	1	<0.001	0.890	0.844	0.939
Constant	-3.807	1.872	4.135	1	0.042	0.022		

Many of the variables retained in the final model were found to be statistically significant predictors of burnout. Out of the personal correlates, age and own monthly income failed to predict burnout significantly ($p>0.05$). Work related correlates including work experience, ability to influence departmental policies, utilization of basic training in work, feedback from superiors and job security also did not predict burnout significantly ($p>0.05$).

The unmarried category was taken as the reference category, and compared to them, those who were married or living together were having a significantly lower risk for burnout at $p<0.001$ level (OR – 0.3, 95% CI: 0.2 - 0.5). Compared to the reference category of never feeling overburdened by housework, the category who were seldom feeling overburdened (OR -1.9, 95% CI: 1.2 - 3.1) and the category who were very often overburdened (OR – 3.9, 95% CI: 1.6 - 9.3) were at a significantly higher risk for burnout at $p<0.01$ level. Compared to the reference category of 'family life doesn't affect work-life adversely', the category of 'family life affects the work-life adversely' was having a 1.8 times higher risk for burnout (95% CI: 1.1-2.9) at $p<0.05$ level. The prison category was found to be an independent predictor of burnout. Compared to those who worked in correctional centres for youthful offenders and drug rehabilitation centre, those who were working in closed prisons were having a significantly higher risk of burnout with an odds ratio of 5.4 (95% CI: 1.3-21.7). As for the other categories of prisons, those who worked at remand prisons were having 4.9 times higher risk for burnout (95% CI: 1.2-19.3), and those who worked in work camps were having 6.7 times higher risk for burnout (95% CI: 1.6-28.4), compared to the reference category. 'Always comfortable with shift work' was taken as the reference category for the perceptions on shift work. Compared to that, 'rarely having difficulty in adjusting' and 'sometimes having difficulty in adjusting' were found to have significant effects on burnout with odds ratios of 1.8 (95% CI: 1.2-2.7) and 2.4 (95% CI: 1.4-4.0), respectively, at $p<0.01$ level. 'Having the ability to take leave when needed' was taken as the reference category in the variable on perceptions on ability to take leave, and compared to that, those having the perception that they 'cannot take leave even for an urgent matter' were found to have a 2.8 times higher risk of burnout (95% CI: 1.5 – 5.4), at $P<0.01$ level.

The category who considered welfare facilities to be 'good' was taken as the reference category. Compared to that, thinking that welfare facilities were 'very poor' and 'poor' had an effect on burnout at $p<0.01$ level, with odds ratios of 3.8 (95% CI: 1.6-8.7), and 1.8

(95% CI: 1.1-2.8), respectively. Regarding the amount of work to be done, those who thought they were 'underworked' were taken as the reference category, and those who thought they were overloaded with work were found to have a 2.1 times higher risk for burnout (95% CI: 1.1-3.7), compared to that, at $p<0.05$ level. The category which never found the job to be dull and boring was taken as the reference category, and compared to that, the category which found the job to be 'seldom' dull and boring were having a significant effect on burnout at $p<0.01$ level (OR- 2.3, 95% CI: 1.4-3.6).

Regarding the perception on having a clear idea on the duties to be performed, the category which found they 'had a clear idea always' was taken as the reference category. Compared to that, the category having the perception that they were 'sometimes not sure of what is expected' was found to have a 1.6 times higher risk of burnout (95% CI: 1.1 – 2.3), at $p<0.05$ level. The relationship with colleagues was found to be a significant predictor of burnout. Compared to those who thought it was 'excellent', the ones who thought it was 'poor or very poor' was found to have a 10.6 times higher risk of burnout (95% CI: 1.1 – 103.3), at $p<0.05$ level. Relationship with families of inmates was also found to be a significant predictor of burnout. The perception that the relationship was 'poor', was having a significant effect on burnout, compared to the reference category of 'excellent', at $p<0.05$ (OR-4.7, 95% CI: 1.4 – 16.0).

The perception on 'the view of the inmates on the officers' job' was having a significant effect on burnout. Compared to the category which believed that 'they highly respect our job', which was taken as the reference category, the category with the perception that 'they are sacred of us, but don't have much respect' was having a significantly higher risk for burnout (OR – 1.9, 95% CI: 1.2-3.0), at $p<0.01$ level. Compared to those who didn't think that asking for support from colleagues showed one's incompetence, which was taken as the reference category, the ones who thought so were having a 1.9 times higher risk of burnout (95% CI: 1.1 – 3.4) at $p<0.05$ level. Overall job satisfaction was found to be a significant predictor of burnout. The category which was 'very much satisfied' was taken as the reference category. Compared to those who were highly satisfied, the ones who were somewhat satisfied were having a 1.7 times higher risk for burnout (95% CI: 1.02 – 2.8) at $p<0.05$ level. Those who had a neutral idea were at a 2.3 times higher risk (95% CI: 1.4-3.8) at $p<0.01$ level, and those who were somewhat unsatisfied were at a 14.3 times higher risk (95% CI: 4.4 – 46.8) at $p<0.001$ level, compared to the reference group. The work environment also had a significant effect on burnout at $p<0.05$ level, where the poor work environ-

ment was a significant predictor of burnout (OR-1.04, 95% CI: 1.003-1.08). Two aspects with relation to emotional labour were also found to be significant predictors of burnout (discussed elsewhere).

DISCUSSION

This study aimed to describe the burnout among Sri Lankan prison correctional officers (prison guards) and rehabilitation officers and to determine the correlates for their burnout. This is the first study carried out in Sri Lanka to assess the burnout of prison officers working in Sri Lankan prisons, and this was part of a broader study aimed at assessing their burnout, correlates, outcomes and coping strategies, in addition to validating the MBI-HSS to the prison setting.

The apparent prevalence of burnout and its sub-domains was assessed using the cut-offs obtained from the validation study. Since the sensitivity and positive predictive value data were available for each cut-off, it was possible to calculate the true prevalence of the entities in the sample. The true prevalence of burnout was found to be 31.1% (95% CI: 22.1% – 40.1%) for the total sample of prison officers. This value is higher than what was observed in a study in Brazil [31], where 14.6% of the prison employees were burned out. However, it could be due to the lower response rate in the Brazilian study, where the more burned-out employees may have avoided participating in the study altogether. Further, the lower sample size in that study could have had an impact on the result.

On the other hand, the higher prevalence detected in the current study could be due to a true higher prevalence in Sri Lankan prison officers, since it is known that the prison officers in Sri Lanka work in a setting where they are overburdened with work due to the cadres not being filled. But, at the same time, the state of the overcrowded prisons in Brazil, with violence and riots, should also be borne in mind [36] when commenting on this lower prevalence. An Irish study [30] found the prevalence of burnout to be between 18.8% and 22.7% among different categories of prison officers. The lower prevalence compared to the current study could be due to the lower sample size and convenience sampling. Since this is the first study of this nature in Sri Lanka, no Sri Lankan studies are available for comparison. However, the obtained prevalence in the current study is higher than what was observed in assessments of burnout among employees of other occupations in Sri Lanka, including nurses, public health midwives and primary school teachers. Only 25.2% of the Sri Lankan public health midwives were found to be

burned out [37], while it was found that 26.3% of the Sri Lankan nurses were suffering from burnout [38]. Both these studies involve healthcare workers and have taken the adjusted prevalence.

Further, only 11.56% of primary school teachers were found to be burned out [39], where only the apparent prevalence was considered. The higher prevalence observed in the current study compared to the other Sri Lankan studies could be attributed to the difference in the nature of the occupation of the prison officers, where the risks for the job as well as for the life of the employees is higher for prison staff compared to the nurses, midwives or teachers. The true prevalence of burnout was also calculated separately for correctional and rehabilitation officers, where it was observed that a much higher proportion of correctional officers experienced burnout, compared to the rehabilitation officers. This finding was anticipated considering the distinction of the nature of their routine duties. Even though both categories of officers frequently associated with the inmates and faced more or less similar conditions in the work environment and administration, the correctional officers were engaged in providing security to inmates inside the prison, as well as escorting the inmates to courts, a duty which was not expected from the rehabilitation officers. This duty could lead to a high level of job insecurity in the correctional officers, where their job could be lost if an inmate escaped. Further, proceedings at the courts also required a high level of attention, alertness and responsibility. These reasons could increase the burnout of the correctional officers, compared to the rehabilitation officers. Additionally, the fact that the rehabilitation officers were not doing shift work could contribute here.

Another interesting finding unveiled was that the dimension of burnout most prominently observed in the sample was diminished personal accomplishment. The proportion with diminished personal accomplishment was higher (37.8%) than that of the dimensions of emotional exhaustion (28.6%) or depersonalization (26.9%), and when analysed separately for the two job categories concerned, it was the correctional officers who were found to be having more of diminished sense of personal accomplishment. The rehabilitation officers didn't show such a large distinction between the three dimensions, and in fact had more emotional exhaustion than diminished personal accomplishment.

This could be due to the correctional duties not imposing a sense of much professional achievement, while rehabilitation-oriented duties giving a better sense of professional achievement through helping to solve issues and promoting health in the inmates. A similar finding of

having a higher degree of diminished personal accomplishment in prison officers is mentioned in a previous study conducted among five different professions [8], where the police officers and the prison officers had displayed more of diminished personal accomplishment and depersonalization, than emotional exhaustion. In the current study, however, depersonalization was found to be the dimension least seen in the sample out of the three dimensions, which could be explained with the cultural background in Sri Lanka, where they would not often treat inmates as 'impersonal objects' or ignore whatever happens to them, even if they are under a high amount of stress.

Other previous studies have also shown similar results to the current study in relation to the prevalence in the three dimensions. A study conducted in Kenya among 181 prison officers [29], and a study conducted in Bulgaria among 307 prison staff [24], revealed that diminished personal accomplishment was the most prevalent dimension of burnout among the prison officers (49.2% and 50.49%, respectively). The Bulgarian study however exhibited emotional exhaustion as the dimension with the least prevalence, reflecting the findings mentioned by Maslach and others (2001) [8], while the Kenyan study showed similar results to the current study, with the lowest prevalence occurring in the depersonalization dimension.

Marital status was found to be a significant predictor of burnout in the multivariate analysis in the current study. Compared to the unmarried, the currently married or cohabiting participants were having a protective effect for burnout (OR = 0.3, 95% CI: 0.2 - 0.5). A similar finding to the current study has been observed in many studies conducted among prison officers [24,29]. Those who found themselves to be burdened by housework seldom (OR -1.9, 95% CI: 1.2 - 3.1) and very often (OR = 3.9, 95% CI: 1.6 - 9.3), were significantly at a higher risk for burnout than those who never found overburdened by housework in the current study. This draws similarity to the study on burnout of Sri Lankan midwives, where those who perceived housework as a burden were significantly at a risk of developing burnout, compared to those who were not (OR = 1.2, 95% CI: 1.02-1.4) [37]. The finding in the current study probably implies some effect of family life on the burnout at work and this assumption was further strengthened by the fact that those who thought that their family life was adversely affecting their work-life, or in other words those who were experiencing family-work conflict were at a significantly higher risk for burnout (OR = 1.8, 95% CI: 1.1 - 2.9).

Even though it was assumed that the prison

officers working at remand and closed prisons which were more dangerous in terms of security, and busier, would be at a higher risk for burnout, in the multivariate analysis, those who were working in the work camps were at the highest risk of burnout (OR = 6.7, 95% CI: 1.6 - 28.4) compared to those who worked at drug rehabilitation centres and correctional centres for youthful offenders, which were considered as more oriented towards rehabilitation, and thus less stressful. Those who worked at closed (OR = 5.4, 95% CI: 1.3 - 21.7) and remand (OR = 4.9, 95% CI: 1.2 - 19.3) prisons were placed second and third at having a higher risk of burnout compared to the reference category. This unexpected, yet interesting finding could be linked to the higher prevalence of diminished personal accomplishment observed in the sample. It could be justified that the higher burnout risk is more due to having to perform more or less monotonous duties at the work camps, compared to the more agile atmosphere at the closed and remand prisons. Also, it was understood through personal communication, that the number of inmates in the work camps has reduced by a large number prior to the time of data collection and the work to be done at those institutions by the inmates was left incomplete. This could also have led to an unsatisfactory mentality in the prison officers with regard to the activities conducted at the institution and could have contributed to the higher level of burnout. Another assumption which could be made is that, since work camps were holding the inmates under minimum security, the officers were eternally worried whether the inmates would escape, which could be increasing their burnout.

Those who found that they were unable to take leave even for an urgent matter were at a higher risk for burnout compared to those who could apply and take leave when they wanted (OR = 2.8, 95% CI: 1.5 - 5.4), in the current study. Taking leave is an issue for the prison officers in Sri Lanka, due to the inadequacy of staff at almost every prison institution owing to the unfilled cadres. While for some, it could be easier to apply and take leave, for some others in institutions or duties with higher deficiencies in the number of staff, taking leave has become a great mental burden (Personal communication). This could be a reason for their burnout, as they find it very difficult to take a leave even for a pre-planned home commitment, and the anticipation that the leave will be cancelled due to some emergency duty gives them a lot of mental stress (Personal communication).

Feeling overloaded with work was found to be a significant predictor of burnout in the current study (OR = 2.1, 95% CI: 1.1 - 3.7), compared to those who thought they had the capacity to even work more. Work overload is found to be a predictor of burnout in other studies

among prison officers [16,29]. Sri Lankan studies among other occupations also proved this finding, in that nursing officers who perceived high quantitative workload (OR – 3.7, 95% CI: 2.1 – 6.7), and public health midwives who perceived higher quantitative work demands (OR – 1.19, 95% CI: 1.04-1.37) and had a higher population under care (OR – 11.93, 95% CI: 2.58-50.65), were found to be more burned out in the multivariate analyses. These findings imply that employees experience burnout due to increased workload, irrespective of their job category. It was found that the satisfaction on the work environment was a significant predictor of burnout in the multivariate analysis (OR – 1.04, 95% CI: 1.003 – 1.08), but not a very strong one. The work environment score was developed using the questions asked on the satisfaction on different aspects of the work environment of the prison officers including threat of danger and violence, threat of contracting communicable diseases, cleanliness, ventilation, odour, orderliness and resting facilities. Health and safety risks were identified as a stressor for burnout in a literature review on burnout studies among prison officers [16]. Inadequacy of work conditions in the prison setting was identified as a predictor for burnout among prison officer in the state of Indiana ($p < 0.05$) [32].

Brower (2013) [22] also identified having to work in a closed environment with poor lighting and ventilation to be associated with higher burnout. The similarity in the findings suggest that the work environment has an effect on the burnout suffered by the employees irrespective of their occupation, and thus improvements in the work environment could be used in reducing the burnout among them. Not having a clear idea about the work they had to perform was a predictor for burnout in the multivariate analysis in the current study. Those who were sometimes unsure about what was expected from them were at a higher risk for burnout compared to those who always had a clear idea (OR – 1.6, 95% CI: 1.1 – 2.3). This role ambiguity was found to be a common stressor for burnout among prison officers in the review of several studies on burnout among prison officers [16]. Role ambiguity, or low role clarity, was found to be a predictor for burnout among nurses in Sri Lanka as well (OR – 5.7, 95% CI: 2.3 – 14.4) [38]. This finding implies that better job descriptions and discussions with superiors could improve the role clarity, which could reduce the burnout among the employees.

Poor or very poor relationships with colleagues had a higher risk for burnout, compared to those who had an excellent relationship with colleagues (OR – 10.6,

95% CI: 1.1 – 103.3). Further, those having a poor relationship with families of inmates were significantly at a higher risk for burnout, compared to those who found the particular relationship to be excellent (OR – 4.7, 95% CI: 1.4 – 16.0). Many other studies have identified poor relationships at work to be having an effect on burnout [16,29]. The current study findings imply that the relationship with colleagues was more significant than with inmates or superiors. Further, the relationship with the families of inmates during visits from the families, and probably during encounters in the courts, could be improved through better communication, in order to alleviate the burnout in the prison officers. The perception that getting support from colleagues would show one's incompetence had a significant effect on developing burnout (OR – 1.9, 95% CI: 1.1 – 3.4). Considering this, and the significance of the association between relationship with colleagues and burnout, it could be suggested that the interactions between co-workers needs to be improved through efforts made by the authorities, as a measure of reducing burnout.

The association between burnout and the different perceptions the officers were having on the inmates was found to be non-significant ($p > 0.05$) in the multivariate analysis. However, thinking that the inmates were just scared of the officers but were not having much respect, was found to predict burnout (OR – 1.9, 95% CI: 1.2 – 3.0) in the current study. This implies that rather than what the officers think about the inmates, what they perceive the inmates to be thinking about them was having an effect on developing burnout. This gives the impression that the personality factors of the officers were also playing some role in their development of burnout.

Overall job satisfaction was a significant predictor of burnout in the current study. Job satisfaction was assessed using a question inquiring how satisfied the officer was about his or her job, and not by using a scale developed for assessing job satisfaction. Those who found the job to be somewhat satisfied (OR – 1.7, 95% CI: 1.02 – 2.8), not satisfied nor unsatisfied (OR – 2.3, 95% CI: 1.4 – 3.8), and somewhat unsatisfied (OR – 14.3, 95% CI: 4.4 – 46.8), were having higher risk for burnout compared to those who were very much satisfied with the job. A similar effect of job satisfaction on burnout is seen in previous studies conducted among different professions in Sri Lanka [37,38], where the nurses who were unsatisfied with the job were having a higher risk for burnout (OR – 3.2, 95% CI: 1.4 – 7.5), while the midwives with high job satisfaction were protective of burnout (OR – 0.89, 95% CI: 0.85 – 0.94). A global study [29] has also proven this fact in a study conducted among prison officers in Kenya. As job satisfaction was found to be affecting the burnout

the prison officers were experiencing, it is suggested that improving job satisfaction through organizational change could reduce the issue of burnout in the prison correctional and rehabilitation officers.

In the multivariate analysis, age was not found to be having any significant effect on the burnout in the prison officers, after the confounding effect of the other variables was removed. Some studies carried out among prison officers in other countries [14,24,32] have also shown that age is not identified as a significant predictor of burnout ($p>0.05$). Job security, though was included in the final model of the regression analysis, failed to have any effect on burnout ($p>0.05$), even though the P value was very close to being significant ($p=0.053$). This finding was quite unexpected, considering the fact that it was thought the job security played a main role in developing burnout, considering the insecurity associated with the job of the correctional officers, where they could lose the job if an inmate escaped. However, it could be indicated that job insecurity may be present in all prison officers more or less in a similar manner due to hierarchical authority in the prison setup. In the literature review conducted on prison officer burnout has identified uncertainty in the job to be a stressor for burnout [16], in contrast to the finding in the current study.

Strengths and limitations

The strength in the current study lies at its higher sample size and the sampling methods used in obtaining a representative sample, plus the higher response rate, enabling it to portray an overall picture of the burnout prevailing in the Sri Lankan prison officers in the job categories of prison guards and rehabilitation officers. However, the findings cannot be generalized to the prison officers in the higher ranks, who are not in contact with the inmates directly. The logistic regression models were developed to account for the confounding effects. However, considering the variances that were explained by the models, especially for the outcomes, the effect of unknown confounders was found to be present, yet could not be accounted for. The study adopted a cross-sectional study design due to logistic constraints. Even though the correlates identified in literature were assessed, the temporal relationship between them and burnout could not be commented on, in the current study.

Implications for policy and future research

Owing to the considerably high prevalence of burnout in this occupational group, stress management and effective methods of coping could be included in a

structured manner into the curriculum of their basic and continuous training in the future. Expediting the process of filling the cadres through advocacy to the policy-making level would reduce the workload currently shouldered by the officers. Interactions with colleagues could be improved through activities including regular work meetings to discuss issues, social gatherings, group sports and mutual support mechanisms appropriate for the prison setting. Counseling services need be made available to the prison correctional and rehabilitation officers, in order for them to obtain professional help in times of need. Motivational activities including appraisal systems could be carried out at regular intervals. Satisfaction surveys and anonymous feedback systems would enable to identify the satisfaction of the officers in their work. Future research should concentrate on the effect of personality traits on burnout and other unknown factors contributing to burnout, preferably using a longitudinal study design.

CONCLUSION

The true prevalence of burnout in the study participants was at a high value with almost one third of the participants suffering from burnout. Diminished personal accomplishment was the most prevalent out of the three components of burnout, while emotional exhaustion and depersonalization were also seen in more than one fourth of the participants. Burden of housework, and family-work conflict had an effect on their burnout, while being currently married or cohabiting was found to be protective for burnout. The work-related factors having an effect on burnout were related to their place of work, perceptions on shift work, taking leave, welfare facilities at work, workload, role clarity and perceiving the job to be dull and boring. Relationships with colleagues and families of inmates, perceptions about what the inmates thought of them, satisfaction with the job and the work environment also had an effect on their burnout. Individual, institutional and policy level improvements could help in reducing the burnout in this occupational group.

REFERENCES

1. Schaufeli WB, Greenglass, E R. Introduction to special issue on burnout and health. *Psychology and Health*, 2001,16, 501-510.
2. Schaufeli, WB, Leiter MP, Maslach C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 2009, 14 (3), 204-220.
3. Borritz M. Burnout in human service work - causes and consequences Results of 3-years of follow-up of the PUMA study among human service workers in

- Denmark (Doctoral Thesis), University of Copenhagen, Denmark, 2006.
4. Toppinen-Tanner S. Process of burnout: structure, antecedents, and consequences– People and Work Research Report 93. Helsinki, Finland: Finnish Institute of Occupational Health, 2011.
 5. Maslach, C. Burnout: A Multidimensional Perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), Professional burnout: Recent developments in theory and research, 1993, 19 - 32. Washington DC, USA: Taylor & Francis.
 6. Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, 2016, 15, 103-111.
 7. Maslach C, Jackson SE. The measurement of experienced burnout. *Journal of occupational behaviour*, 1981, 2, 99-113.
 8. Maslach C, Schaufeli WB, Leiter MP. Job Burnout. *Annual Review of Psychology*, 2001, 52, 397-422.
 9. Ahola, K. Occupational Burnout and Health – People and Work Research Reports 81. Helsinki, Finland: Finnish Institute of Occupational Health, 2007.
 10. Taris TW, Le Blanc PM, Schaufeli WB, Schreurs PJG. Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work & Stress*, 2005, 19(3), 238-255.
 11. Leiter MP, Maslach C. The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 1988, 9, 297-308.
 12. Golembiewski RT, Munzenrider RF. Phases of Burnout, Modes And Social Support: Contributions To Explaining Differences in Physical Symptoms. *Journal of Managerial Issues*, 1990, 2(2), 176-183.
 13. Lee RT, Ashforth BE. A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. *Organizational Behavior and Human Decision Processes*, 1993, 54:369-398.
 14. McDonald, J. Correlates of police and correctional officer burnout: An exploratory study (Unpublished doctoral Thesis), University of Central Florida, United States of America, 2012.
 15. Waddimba AC, Nieves MA, Scribani M, Krupa N, Jenkins P, May JJ. Predictors of burnout among physicians and advanced-practice clinicians in central New York. *Journal of Hospital Administration*, 2015, 4(6), 21-30.
 16. Schaufeli WB, Peeters MCW. Job stress and burnout among correctional officers: A literature review. *International Journal of Stress Management*, 2000, 7(1), 19-48.
 17. Tay WY, Earnest A, Tan SY, Ming MJ. Prevalence of Burnout among Nurses in a Community Hospital in Singapore: A Cross-sectional Study. *Proceedings of Singapore healthcare*, 2014, 23(2), 93-99.
 18. Armour C. Mental Health in Prison: A Trauma Perspective on Importation and Deprivation. *International Journal of Criminology and Sociological Theory*, 2012, 5(2), 886-894.
 19. Steiner B. Maintaining prison order: Understanding causes of inmate misconduct within and across Ohio Correctional Facilities (Unpublished dissertation), University of Cincinnati, 2008.
 20. Coyle A. A Human Rights approach to prison management: handbook for prison staff, London, United Kingdom: International Centre for prison studies, 2009.
 21. Hasenfeld, Y. Human service organizations. Englewood Cliffs, New Jersey: Prentice Hall, 1983.
 22. Brower, J. Correctional officer wellness and safety literature review. Washington DC, USA: Office of Justice Programs Diagnostic Centre, 2013.
 23. Bogemann, H. Promoting health and managing stress among prison employees. In L. Moller, H. Stover, R. Jurgens, A. Gatherer & H. Nikogosian (Eds.), *Health in prisons A WHO guide to the essentials in prison health*, 2007, 171- 179. Copenhagen, Denmark: World Health Organization.
 24. Harizanova SN. Job Burnout among Bulgarian Prison Staff. *International Journal of Scientific Research*, 2014, 3(8):307-308.
 25. Morgan RD, Van Haveren RA, Pearson CA. Correctional Officer burnout: Further analyses. *Criminal justice and behavior*, 2002, 29(2), 144-160.
 26. Department of Prisons. *Prison Statistics of Sri Lanka*. Colombo, Sri Lanka: Department of Prisons, 2016.
 27. Prisons Ordinance 1878 (SL) S.8 (SL.). Retrieved October 25, 2016, from http://hrlibrary.umn.edu/research/srilanka/statutes/Prisons_Ordinance.pdf
 28. Vickovic SG. Correctional Officer Job Stress: The Influence of Perceived Occupational Prestige (doctoral thesis), Arizona State University, USA, 2015.
 29. Gitau CW. Prevalence of burnout among prison officers at Kamiti Command (Masters Thesis, University of Nairobi, Kenya) Retrieved January 15, 2017 from http://erepository.uonbi.ac.ke/bitstream/handle/11295/58835/Gitau_Prevalence%20Of%20Burnout%20Among%20Prison%20Officers.pdf?sequence=3.

30. Mulligan D. Stress, Burnout and Coping Strategies among Prison Officers Serving In The Irish Prison Service (Unpublished Dissertation), DBS School of Arts, Dublin, Ireland, 2014.
31. Campos JADB, Schneider V, Bonafe FSS, Oliveira RV, Maroco J. Burnout Syndrome and alcohol consumption in prison employees. *Revista Brasileira de Epidemiologia (Brazilian Journal of Epidemiology)*, 2016, 19(1), 205-216.
32. Avdija AS, Roy S. Occupational exhaustion among prison staff: multivariate analysis of correlates associated with emotional exhaustion. *International Journal of Research in Social Sciences*, 2013, 2(4), 1-12.
33. Lwanga SK, Lemeshow S. Sample size determination in health studies: A practical manual. Geneva, Switzerland: World Health Organization, 1991.
34. Wijegoonewardene N, Vidanapathirana J, Fernando T. Validation of the Maslach Burnout Inventory – Human Services Survey to assess burnout in prison officers working in Sri Lankan Prisons. *Journal of the College of Community Physicians of Sri Lanka*, 2019, 25(1), 15-22. DOI: <http://doi.org/10.4038/jccpsl.v25i1.8182>.
35. Wijegoonewardene, N., & Vidanapathirana, J. Emotional Labour and its association with Burnout in Sri Lankan Prison Officers. *Asian Journal of Research*, 2021, 4-6, 10-27. <http://dx.doi.org/10.5281/zenodo.5112092>.
36. Muggah R, Carvalho ISD. (2017, January 04). Brazil's Deadly Prison System. *The New York Times*. Retrieved April 03, 2017, from <https://www.nytimes.com/2017/01/04/opinion/brazils-deadly-prison-system.html?mcubz=0&r=0>
37. Pathiraja PMRBI. Burnout, coping strategies and correlates of burnout among Public Health Midwives working in the Western province of Sri Lanka (Unpublished doctoral Thesis), University of Colombo, Sri Lanka, 2011.
38. Samaranyake DBDL. Burnout among nursing officers: Prevalence, Correlates, Association with nursing performance (Unpublished Doctoral Thesis), University of Colombo, Sri Lanka, 2010.
39. De Silva PV. Occupational health problems, lifestyle and occupational risk factors associated with burnout among female primary school teachers in the Southern province of Sri Lanka (Unpublished doctoral Thesis), University of Colombo, Sri Lanka, 2007.

Conflicts of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding

This work was supported by the Component II of the Second Health Sector Development Project of the Ministry of Health, Nutrition and Indigenous Medicine – Sri Lanka (Grant number: SHSDP/RG/2016/29). The funding source had no involvement in the in the study design, collection, analysis and interpretation of data, writing of the report or the decision to submit the article for publication.

Authors contribution

Nimali Wijegoonewardene: Conceptualization, Methodology, Formal analysis, Writing - Original Draft, Writing - Review & Editing
Janaki Vidanapathirana: Conceptualization, Methodology, Supervision, Writing - Review & Editing.

Data sharing statement

No additional data are available.

About the license

©The author(s) 2021. The text of this article is open access and licensed under a Creative Commons Attribution 4.0 International License.