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Burnout Syndrome among Pharmacy Staffs of Hospital Miri, Sarawak.

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Abstract

INTRODUCTION: 'Job burnout is a psychological syndrome that involves a prolonged response to stressors in the workplace. There are several causes that contributes to burnout syndrome; prolonged stress, heavy workload burden and hostile working environment, under appreciation and sense of loss of control. Pharmacy is a high yielding for burnout due to staffing shortages, heavily regulated environment, excessive documentation, the inability to control requests, focus on negative outcomes and few rewards for improved patient care and preventing contraindications.

OBJECTIVE: The intention of this study is to analyse the risk of burnout syndrome among pharmacist staffs in Miri Hospital Pharmacy Department and compare risks of burnout syndrome between Pharmacists (Fully Registered Pharmacists and Provisionally Registered Pharmacists) and Pharmacy Assistants within the Pharmacy Department.

METHODS: Cross-sectional study, on pharmacy staffs of Miri General Hospital (MGH). Data collection done thru questionnaire adapted from the Maslach Burnout Inventory (MBI) and Patient Health Questionnaire (PHQ-9).

RESULT: 70 personnel staffs within the Miri Hospital Pharmacy Department participate in the survey study. We found that more than 60% of the staff are unlikely to have depression, however many experience moderate to high depersonalisation.

CONCLUSION: Effective management should taken to reduce burnout in work organizations. Through cooperative work relationships, external vocational training courses and team supervision are important in preventing burnout. There are correlations between the working hours and burnout. We believe there is the need of positive social interaction and healthy work-life balance in managing burnout and depression.

KEYWORDS: Burnout, stress, psychology

Introduction:

Job burnout is a psychological syndrome that involves a prolonged response to stressors in the workplace. Since from early literature (*A Burnt-Out Case;* Greene 1961), mention of extreme fatigue and the loss of idealism and passion for work has been a social problem only taken into notice by researchers. Burnout is a common reaction to job stress, reduces the motivation and effectiveness of many human service providers (1,2).

There are several causes that contributes to burnout syndrome; prolonged stress, heavy workload burden and hostile working environment, under appreciation and sense of loss of control. This may lead to physical, mental health issues and increased turnover rate (3). The negative association of an employee displaying burnout symptoms has a detrimental effect to the patients within the healthcare environment. These results in negative perceptions by patients displayed by burnout employees and in turn towards patient's satisfaction (4).

Pharmacy is a high yielding for burnout due to staffing shortages, heavily regulated environment, excessive documentation, the inability to control requests, focus on negative outcomes and few rewards for improved patient care and preventing contraindications (5).

In a recent study on the relationship between professional burnout and quality and safety in healthcare, there are small to medium relationships between burnout and both decreased quality of care and decreased safety. Although the degree of impact may seem non-immediate, concerns of increasing rates of burnout can have significant implications in the healthcare sector (6,7).

The intention of this study is to analyse the risk of burnout syndrome among pharmacist staffs in Miri Hospital Pharmacy Department and compare risks of burnout syndrome between Pharmacists (Fully Registered Pharmacists and Provisionally Registered Pharmacists) and Pharmacy Assistants within the Pharmacy Department.

Method

Inclusion and exclusion criteria

Staffs within the pharmacy department of Miri Hospital (MH), who are working in all units within the department who are working as full-time, included in the study. These staffs included are the pharmacists [fully registered pharmacists (FRPs), provisionally registered pharmacists (PRPs)] and Pharmacy Assistants (PPF) who have been working for a minimum

of 5 months in Miri Hospital. We excluded the following staffs which are those who have not been working less than 5 months and those who not categorized in any of the included groups in pharmacy department studied.

Survey conducted on May 2016 via questionnaires and distributed in hand to relevant staffs included to the study.

Study population

All subjects in this study are predominantly female, varying from various ethnicity backgrounds, different martial status and with different working environment and roles within the same department. The age of subjects ranged between 25 to 55 years old.

Data collection

Questionnaires based on two parts; Maslach Burnout Inventory (MBI) and Patient Health Questionnaire (PHQ-9). MBI consists of three components in evaluating Burnout Syndrome; Exhaustion (section A), Depersonalisation (section B) and Personal Achievement (Section C). PHQ-9 evaluates the likelihood of depression which has correlations related to burnout. Results then collected and analysed via sealed envelopes from respective units within the Pharmacy Department at the end of the survey period.

Statistical Analysis

Standard descriptive summary statistics used to characterise the sample population. Associations between continuous variables and categorical variables will be evaluated using Mann-Whitney, Chi-Square, and Fisher's Exact test. All the analyses performed using IBM ® SPSS® Statistics version 17 and Version 23.

Results and Discussion

As the total survey consists of most of the Pharmacists (PF) and Pharmacy Assistant (PPF) within the Pharmacy Department; it considers the representative of the department irrespective of the units, roles and responsibilities involved. There are several units within the Pharmacy Department which have different working environment which may affect the increased possibility of Burnout.

Within Miri Hospital Pharmacy Department, the department divided into various unit disciplines. It consists of Outpatient Specialist Pharmacy, Inpatient Pharmacy, Drug Information Service, Production Pharmacy, Oncology Pharmacy, Satellite Pharmacy,

Therapeutic Drug Monitoring and Clinical Pharmacy. In these units, pharmacists; FRP and PRP allocated to all units with the majority of pharmacists in Outpatient Specialist Pharmacy. Pharmacy Assistants allocated to all units except Clinical Pharmacy. Most of Pharmacy Assistants allocated in Outpatient Specialist Pharmacy, Inpatient Pharmacy and Satellite Pharmacy.

To maintain adequate manpower to support the services within the hospital, it required that staff would have to work within shifts daily to ensure smooth operations to service both inpatient and outpatient patients. Staff may required to work overtime during weekends and public holidays including during late hours to cater for the various needs of a running hospital.

Most of the staff (PF and PPF) would scheduled to take on shifts as allocated; as well as their own respective roles in their respective units. Shifts divided into 3 slots; normal working hours, extended night shift, weekend duty, on-call duty and midnight Shift. Most of the pharmacy operations are during normal working hours. During extended night shift, weekend duty and midnight shifts, both pharmacists and pharmacy assistants allocated by respective schedules to ensure smooth operations of the pharmacy daily.

70 personnel staffs within the Miri Hospital Pharmacy Department participate in the survey study.. Questionnaires distributed to all respective units within the Pharmacy Department in-hand to respective participants during working hours. During the survey period, 9 Pharmacy Assistant and 6 pharmacists declined to participate in the study. Total numbers of participants of the survey are 55 personnel. 83.6% and 13.4% of pharmacists and pharmacy assistants respectively have returned and completed the questionnaires. Among the reasons for the poor participation within the pharmacy assistants group were; language barrier, poor comprehension of the questionnaires, lack of interest or awareness and hectic schedules which did not permit them to complete the questionnaires during the survey period. Within the pharmacists, non-participation was due to hectic time schedules and varying working shifts which did not permit survey collection during normal working hours. For other reasons, staff from both groups refuses to know their own risks to burnout and depression.

Table 1: Maslach Burnout Inventory (MBI) Results Summary among Pharmacy Staff in Miri Hospital.

MBI Criteria	Frequency	Percent (%)	Cumulative Percent (%)
Exhaustion			
Low Level	35	63.6	63.6
Moderate Level	12	21.8	85.5
High Level	8	14.5	100.0
Total	*55*	*100.0*	
Depersonalisation			
Low Level	10	18.2	18.2
Moderate Level	22	40.0	58.2
High Level	23	41.8	100.0
Total	*55*	*100.0*	
Personal Achievement			
Low Level	34	61.8	61.8
Moderate Level	12	21.8	83.6
High Level	9	16.4	100.0
Total	*55*	*100.0*	

The results obtained from MBI; section A, B and C including PHQ-9 is summarized in Table 1-2. In Table 1, the 3 criteria (Exhaustion, Depersonalisation and Personal Achievement) are ranked on the risks of developing exhaustion, depersonalisation and lack of personal achievement. Most of the staffs in all 3 criteria have low level risk of exhaustion, high level risk of depersonalisation and low level risk of poor personal achievement. Although the impression may seem most of the likelihood of risks are more likely to have a high degree of depersonalisation, this does not account for specific individual total burnout risks that may have varying risks on other criteria. We consider that a more comprehensive detail of MBI criteria subgroup profile risks and relation to the unit working environment would be more beneficial for use by respective units.

Based on our survey findings, we have assumed the distribution of all 3 criteria evaluated in in MBI would be the same when in comparison with Pharmacists and Assistant Pharmacists. Based on our statistical analysis via independent samples Mann Whitney U Test, the

distribution of criteria scoring between the two groups are different except for personal achievement. The results of these findings are as shown in Table 3.

Based on our findings of Burnout Syndrome as summarised in Table 4, there is a significant association between respective Pharmacists and Pharmacy Assistants groups based on Chi-Square test (p=0.010). In measuring the likelihood of depression between the 2 groups as seen in Table 4, There is an association between the groups based on Fisher's exact test (p=0.006).

Table 2: Patient Health Questionnaire (PHQ-9); likelihood of developing depression among Pharmacy Staff in Miri Hospital

PHQ-9 Score	Frequency	Percent (%)	Cumulative Percent (%)
Unlikely have depression	37	67.3	67.3
Minor depression	11	20.0	87.3
Moderate depression	1	1.8	89.1
Severe depression	6	10.9	100.0
Total	*55*	*100.0*	

As seen in Table 2, most of pharmacy staffs (n=37), are unlikely to have depression (67.3%). The second majority are likely to have depression (n=11, 20%) and the third majority are more likely to have severe depression (n=6, 20%). The likelihood of depression between pharmacist and pharmacy assistants' groups not studied as it was not the main objective of our survey. The key reason depression is considered in relation with Burnout Syndrome is because there has been established association of burnout and depression (8,9)

Burnout may be a phase in developing depression, but also that depression may negatively influence the experience of work and generate burnout (8,9). Henceforth there are circular influences between both which may be difficult to determine whether staffs in the study may already have burnout with depression or with depression alone. Likewise, due to the influences of Burnout and depression; increases of depression from a certain point of time predicted an increase of burnout in the near future. There is no significant difference in

strength between the effect of an increase burnout subsequent increase in depression and vice-versa(10).

An examination of the findings (Figure 1) revealed a statistically significant difference ($p<0.5$) between pharmacists and Pharmacy Assistant. Comparison made among pharmacists and assistants pharmacists of Miri Hospital by using indicator of exhaustion, depersonalisation, personal achievement and depression which contributes to the prevalence of Burnout Syndrome.

Table 3: Comparison between PF and PPF based on Maslach Burnout Inventory Test Score

Maslach Burnout Inventory Test Score			PF vs. PPF		Total	P-Value*
			PF	PPF		
Exhaustion	low level	Count	30	5	35	0.030
		% within PF/PPF	65.2%	55.6%	63.6%	
	moderate	Count	12	0	12	
		% within PF/PPF	26.1%	0.0%	21.8%	
	high level	Count	4	4	8	
		% within PF/PPF	8.7%	44.4%	14.5%	
Depersonalisation	low level	Count	10	0	10	0.000
		% within P/PA	21.7%	0.0%	18.2%	
	moderate	Count	22	0	22	
		% within PF/PPF	47.8%	0.0%	40.0%	
	high level	Count	14	9	23	
		% within PF/PPF	30.4%	100.0%	41.8%	
Personal Achievement	low level	Count	25	9	34	0.012
		% within PF/PPF	54.3%	100.0%	61.8%	
	moderate	Count	12	0	12	
		% within PF/PPF	26.1%	0.0%	21.8%	
	high level	Count	9	0	9	
		% within PF/PPF	19.6%	0.0%	16.4%	
Overall Score	Likely to have Burnout	Count	3	4	7	
		% within PF/PPF	6.5%	44.4%	12.7%	
	Unlikely to not have Burnout	Count	43	5	48	
		% within PF/PPF	93.5%	55.6%	87.3%	

*Mann Test Whitney U

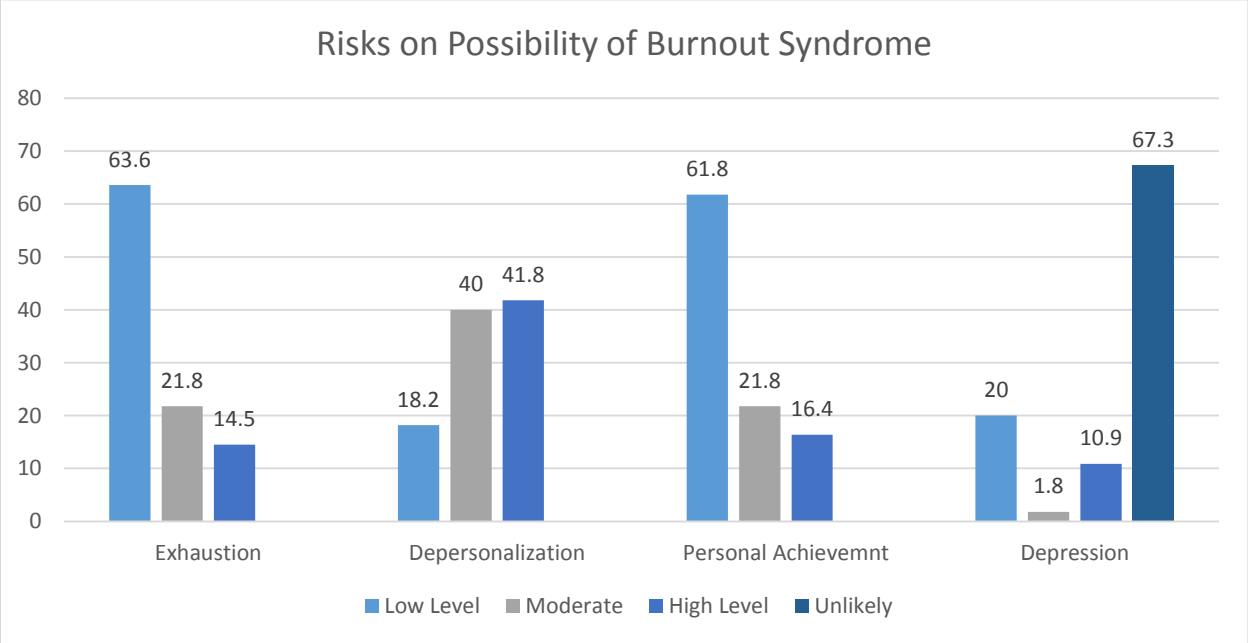


Figure 1:Criteria on likelihood of Burnout Syndrome based on MBI

Exhaustion described as fatigue due to work demand and exposure to chronic fatigue (2). Personnel with high levels of burnout are most likely found in working environments with high job demands and low job resources. Over the time, experience of fatigue may transform into chronic exhaustion and health problems when the demands of their job become overwhelming, and when job resources are consistently lacking (6). Based on the outcome of the survey as summarised in Figure 1, 14.5% are on high level of exhaustion, 21.8% on moderate likelihood of exhaustion and the rest of the 63.6 respondents have low level of exhaustion. As seen in Table 3, most of staff with high level of exhaustion comes from pharmacy assistants (n=4, 44.4%) and the minority from pharmacists (n=4, 8.7%).

This could be due to the working environment which involves front service with patients such as Outpatient Pharmacy and Satellite Pharmacy; or demanding work tasks related with

colleagues such as in Clinical Pharmacy (related to inpatient based care). As there are less pharmacy assistants compared with pharmacist within the department, pharmacy assistants experiencing high level of exhaustion which could be due to increased working hours or workload demand. A smaller number of pharmacy assistants (n=9); to cover for the required operations of the pharmacy in the hospital daily would require additional working shifts compared with pharmacists within the same department (n=46).

Depersonalisation which is among the criteria to evaluate the likelihood of burnout syndrome (2). Individuals who experience depersonalisation feel divorced from their own self by sensing their body sensations, feelings, emotions, behaviours and not belonging to the same person or identity (11). This represents interpersonal relations between fellow colleagues (nurses, doctors, and other administrative staff) and patients. As seen in Table 1, 41.8% has high risk, 40% moderate risk and 18.2% low risk of depersonalisation.

As seen in Table 3; within the 41.8% of high risk depersonalisation; all the pharmacy assistants (n=9) and 30.4% of the pharmacists (n=14) are within this risk category. Although it is not clear of which working environment the following risk category are in, we can correlate on the roles and responsibilities of the pharmacy assistants and their relationships with patients. Within the department, pharmacists have direct clear interpersonal relations with their colleagues and patients. Every day, most roles of pharmacists require professional relationships with nurses, prescribers and patients as part of their duty. With prior exposure to different working environments during their provisional training period, pharmacists understand the roles and responsibilities that they currently in.

It could be speculated the 30.4% within the 41.8% of high risk depersonalisation are most likely to come from provisionally registered pharmacists who have yet to understand their daily functioning roles and its significance. The number of provisionally registered pharmacist who participated at the time of the survey not known during sample collection.

Personal achievement is an indicator of the degree of an individual has been satisfied at their accomplishment in work. A low level of personal achievement indicates low satisfaction of accomplishment compared with high level of personal achievement indicates high satisfaction of accomplishment of work. As seen in Table 1, 61.8% (n=34) has low level followed by 21.8% (n=12) moderate level and 16.4% (n=9) high level personal achievement respectively.

In comparison to personal achievement between pharmacists and pharmacy assistants as seen in Table 3, those who have low level of personal achievement are majority from pharmacy assistants (n=9) and 54.3% (n=25) from pharmacists. The reason for most of the pharmacy assistants have low level of personal achievement could be due to the lack of career progression as pharmacy assistants in hospitals. As their roles are to support part of the main services of the pharmacy, daily tasks may seem dull and repetitive which does not provide means of satisfaction to the job.

The results shown on the degree of moderate-high level of depersonalisation correlates with the level of personal achievement between the Pharmacists and the Pharmacy Assistant. The high level of depersonalisation relates to the low level of personal achievement. The latter goes the same within the pharmacists group where those with moderate-high level of depersonalization have low-moderate level of personal achievement.

Having lower levels of personal achievement means more likely of staff to disassociate themselves with their work and therefore leads to higher levels of stress and anxiety (1). The increased depersonalisation and decreased level of personal achievement have an impact towards patients where it is likely that staff may show the lack of empathy and decreased effort or concern towards the well-being of the patient. This therefore decreases the overall quality of work and reduces the value of service provided (10).

Based on the cumulative scores obtained according the 3 criteria from the MBI survey, 12.7% (n=7) are more likely to have burnout at the time of the survey period. The majority who are likely to have burnout are from the Pharmacy Assistants group (44.4%; n=4) while from the Pharmacists group is 6.5% (n=3).

Based on the scores obtained from the MBI survey; it has revealed the same number of Pharmacy Assistants are likely to have burnout. The certainty of burnout between senior staff and junior staff could not be identified in this study to determine the causative relationship between the impact of roles and responsibilities and the various working environment within the department.

Table 4: Patient Health Questionnaire (PHQ-9); likelihood of developing depression among Pharmacy Staff in Miri Hospital between Pharmacists (PF) and Assistant Pharmacists (PPF).

PHQ-9 Score		PF vs. PPF		Total (%)	P-Value*
		PF	PPF		
Unlikely have depression	Count	34	3	37	0.06
	% within PF/PPF	73.9%	33.3%	67.3%	
Minor depression	Count	9	2	11	
	% within PF/PPF	19.6%	22.2%	20%	
Moderate depression	Count	1	0	1	
	% within PF/PPF	2.2%	0%	1.8%	
Severe depression	Count	2	4	6	
	% within PF/PPF	4.3%	44.4%	10.9%	
Total	Count	46	9	55	
	% within PF/PPF	100.0%	100.0%	100.0%	

*Fisher's Exact Test

As seen in Table 4, most of the Pharmacists (n=34, 73.9%) are unlikely to have depression compared with Pharmacy Assistants one third of the group (n=3, 33.3%). Most of the Pharmacy Assistants fall under severe depression (n=4,44.4%). The Pharmacists group second majority falls under minor depression (n=9, 19.6%). The cause of minor, moderate and severe depression among Pharmacists and Pharmacy Assistants not identified during the survey. When comparing severe and moderate depression across the two groups in Table 4 with likelihood of burnout as seen in Table 3, we can correlate the same number of Burnout across the 2 groups is the same. Based on our relationship of burnout and depression, it is likely that burnout proceeds with depression.

Despite of the limited sample size and varying relationship of various environments within the pharmacy department, there is a correlation between the decreased number of personnel and increased working demand has a significant impact on the increased risks of Burnout Syndrome as seen among Pharmacy assistants. However, additional considerations of a larger sample size, ratio of Pharmacists to Pharmacy Assistants and working environment would be needed to consider to determine the necessary requirements to reduce the possibility of developing Burnout Syndrome.

Conclusion

Burnout cannot be defined or described as a form of illness. It is a form of exhaustion which is a normal reaction to stress. Some professional agreed that burnout could be noticed with symptoms which include emotional exhaustion, alienation from job related activities and reduced performance in daily tasks (11).

Effective management should taken to reduce burnout in work organisations. Through cooperative work relationships, external vocational training courses and team supervision are important in preventing burnout. There are correlations between the working hours and burnout (12). We believe there is the need of positive social interaction and healthy work-life balance in managing burnout and depression. It will be more useful to increase number of positives and of building of opposite of burnout (13).

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