



A Lunch Break Time and Its Impact on Employees Health, Performance and Stress on Work

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Employees' health, performance, and stress problem have become a major issue in today's workplace globally. These problems are linked to various factors. In this study, we contributed the rationality of having a one-hour lunch break at the workplace. Drawing on extant literature, we developed a theoretical model in this study. The results showed a positive impact on employees' health, performance and reduced stress at work if the favorable one-hour lunch break is practiced. The study also gives support to prevent absenteeism, improve job satisfaction, and employees' positive attitude towards work.

Keywords: *Lunchtime; employee's physical health; mental health; performance; stress.*

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1. INTRODUCTION

In the competitive business era labor health, performance, and stress work have become major problems. These laborers' work-related problems are lined with different factors. Previous studies indicate an essential connection between a long working week and health symptoms [1]. Previous studies on the relationship between working hours and fatigue revealed a positive relationship between lengthy hours working and fatigue, and poor work-life balance linked with long hours working [2]. In addition, sleep deprivation can lead to an inflammatory response that may cause the development of cardiovascular disease processes [3]. One million people stress on the job and five million extremely stress at work [4]. The mental and physical conditions also affect productivity, effectiveness, personal health, and quality of work [5]. Similarly, prior research showed reducing "Blood Pressure" in hypertensive involves falling risk of death and disability, which enhances an important factor for employee's health [6]. "Working time satisfaction is a direct measurement of the happiness that an employed worker derives from his current working time arrangements and dissatisfaction may have behavioral consequences, for example, not being able to realize the desired working time or working time arrangement may cause employees to change jobs" [7]. Unusual working hours can be complicated participation in work-life balance including social life [8]. Similarly, previous studies revealed that persons who are satisfied with the length of their working hours tend to be more satisfied with their jobs [9]. In addition, recent studies identified that shorter breaks, such as weekends or breaks of different

lengths during the working day are beneficial for recovery [10]. Lunch is most often the greatest and therefore the most remarkable break during the day in terms of recovery [11]. Moreover, not only free time itself but also the activities or experienced employees meet during the break impact recovery levels [11], and few author showed that few lunch break activities are beneficial in terms of recovery [11]. Furthermore, Moreover, not only free time itself but also the activities or experienced employees meet during the break impact recovery levels [11]. (A wordy and repetitive sentence structure should be avoided).

Besides the concept of "WHAT" is well established literature in both management and economics investigating the causes and consequences of absenteeism [12]. Absenteeism can be defined as the failure to report scheduled work that is costly to employers in terms of lost productivity. It is also associated with other counterproductive behaviors, such as lateness, reduced personal productivity, and turnover [13], and some researchers simply measured the number of times employees attend work while feeling ill [14]. Others attempted to measure the associated productivity loss by asking employees directly about any reduced work performance [15], the degree of lost efficiency [16], or any work limitations stemming from going to work while sick [17]. Importantly, depression, anxiety, and emotional disorders, and overall mental health have been cited as some of the strongest correlates of presents [18]. The break is an opportunity for employees to take a rest and body off from work in the term of break time [19]. In addition, several work-related health hazards result globally.

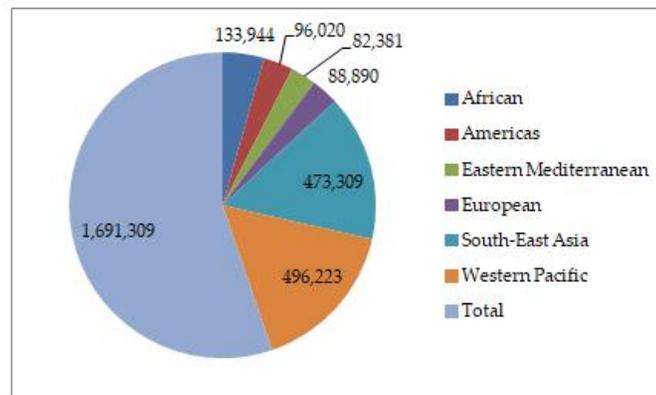


Fig. 1. Breakdown of the Estimated Fatal Work-Related Mortality by WHO Regions in 2015. Source: [20]

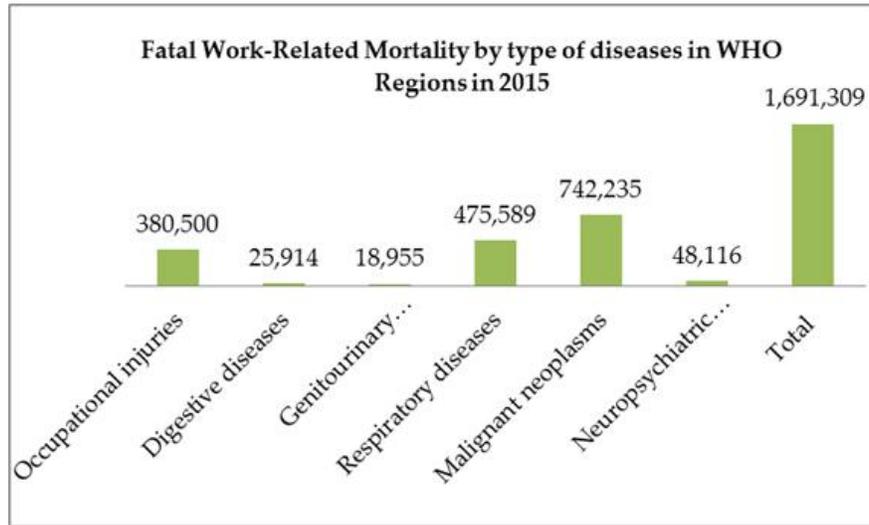


Fig. 2. Breakdown of the Estimated Fatal Work-Related Mortality by type of diseases in WHO Regions in 2015 Source: [20]

Table 1. State Law for Adult Employees in Private Sector

State	Maximum hours before lunch break	Required length of lunch break
California	5	30 minutes
Colorado	5	30 minutes
Connecticut	If working week at least 7.5 consecutive hours after 1 st two hours, before last two hours	30 minutes
Delaware	If working at least 7.5 consecutive hours: after 1 st two hours, before last two hours	30 minutes
Illinois	For employees who work 7 ^{1/2} hours or more, after 5 hours	At least 20 minutes
Kentucky	Between 3 rd and 5 th hours work	Ordinarily 30 minutes
Maine	6 consecutive hours	30 minutes
Maryland	6 consecutive hours	30 minutes
Massachusetts	6 consecutive hours	30 minutes
Minnesota	Sufficient unpaid time for employees who work 8 hours consecutive hours or more	Not stated
Nebraska	Within each 8 hours shift	30 minutes
Nevada	During 8 hours continue	30 minutes
New York	Noon-day period	60 minutes
North Dakota	After 5 hours	30 minutes
Oregon	Less than 7 hours: between 2 nd & 5 th hours; more than 7 hours, between 3 rd and 6 th	30 minutes
Rhode Island	Up to 6 hours-	20 minutes
Tennessee	Up to 8 hours-	30 minutes
Vermont	6 or more consecutive hours	30 minutes
Washington	Employees are to be given "reasonable opportunity" during work periods to eat & use toilet facilities	Not stated
West Virginia	5 consecutive hours	30 minutes
Guam	5	30 minutes

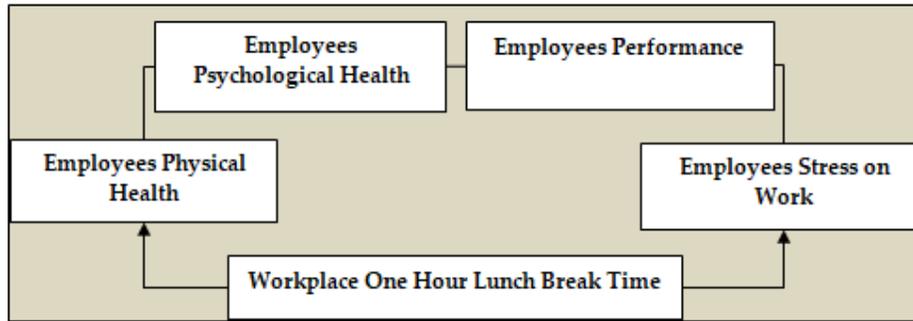


Fig. 3. Model of the study

Globally domestic lunch break time's length is different including hidden. Table 1 shows the overview of various laws about the meal/rest break earlier. It shows every state has a variety of rules for the different jobs/industries. The labors working from early morning time 07:00, 80:00 or 80:30 or 90:00 to 05:30-06:00-07:00 including overtime work, and taking lunch at different times such as between 12:00-13:00 or 13:00-14:00 with lunch break length between 10-20-30-40 minutes. In this process, labor less than one hour meal time length is included in the stress meal break times. Therefore, the present study aims to highlight the role of a one-hour lunch break schedule. The one-hour break is doing a positive impact on the employee's physical-mental health, performance and stress work on laborers at work in the organization.

2. MATERIALS AND METHODS

In the study, we applied the conceptually theoretical model, theory, and Figures and have used the secondary data for the study validation. According to Bowen [21], which states that "Document analysis is a qualitative research method that requires data to be examined and interpreted to understand and develop empirical knowledge from pre-existing documents". The model of the study has been shown in Fig 3.

Fig. 3 shows the one-hour lunch break schedule is maintaining a positive impact on employee's physical health, psychological health, performance, and stress on workers at work in the organization.

Hypotheses.

The following conceptual propositions were developed for the positive impact on the labor health well-being and an organization including domestic states well-being in the world.

Hypothese1 (H1). The workplace labors one-hour lunch break schedule plays a role in positively impacting employee's physical and mental health at work in the organization.

Hypothese2 (H2). The workplace labors one-hour lunch break schedule plays a role of positively impacting employee's performance and employee's stress on work in the organization.

3. RESULTS AND DISCUSSION

3.1 Labors Physical Health

One-hour lunch break time plays an important role in positively impacting an employee's physical health. In this time labor can be body off from work to take the meal, nape and walk which can be a positive impact on employee's physical health at work [22,23]. According to Willert, Thulstrup [24] reports that in occupational settings, fatness and sleepiness make worse motivation, mood, and job satisfaction and also can lead to poor health outcomes. And [25] reports that "In many countries, fatigue has been identified as a contributing factor in a significant proportion of road transport accidents". The labors' one-hour lunch break time can be prevented from employee's fatigue-fatness to the positive impact on physical health. However, prevent an employee's fatigue, fatness and positive impact on physical health can be by one-hour lunch break time? It can be perceived that in the one-hour lunch break time can take the meal, nape or walk for body moment and refreshment to get recharge to lead fatigue and fatness. Fewer break time employees taking meal and continue working can be increased fatigues labors at work while in the less lunch break time employees cannot do take a meal, walk, and nape. In this fewer time employees just

getting a meal and continue working including no time for nape and walk to growing physical fatigue laborers at work. According to [26] states that in studies with workers fatigue and overwork were identified as the main reasons for not adopting an active behavior during leisure time. And [27] reports that in South Korean workers, over 75% of those employed do

not practice leisure-time physical activity (LTPA), and work conditions, including overwork, were an important constraint in the lack of this practice. However, employees do practice in term of less lunch break time. While labors have enough lunch break time yet he/she can be practiced likely walk-talk-nap.



Plate 1. In a one-hour lunch break schedule he/she can walk

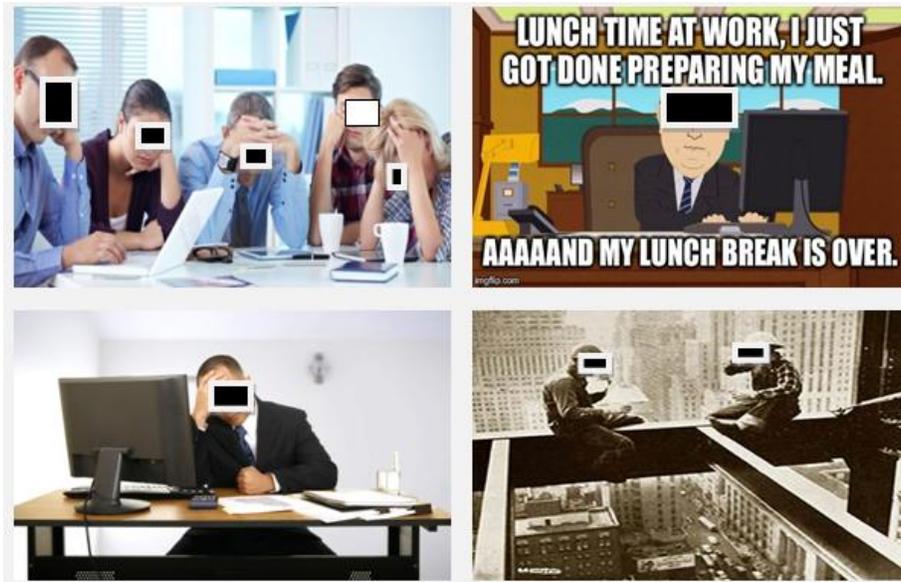


Plate 2. In less lunch break time physical fatigue labors

According to [28], the study that physical activities can be executed in different situations, such as different forms of displacement, work activities, domestic activities, or leisure activities. [29], The beneficial effects of regular physical activity, especially in leisure activities are well established in the literature [30].

However, laborers can be done physical activity in terms of fewer lunch break times? At this time they cannot be able to do any activity which can be boosting fatigue health at work. And while in the one-hour lunch break times schedule they can be done activities which can be prevented in continue working including fatigue. This time increases the employee's moment of body and rest which decreases fatigue and fatness, and sleepiness to a positive impact on the labors physical health. According to [31] state that insufficient physical activity has higher risks of chronic diseases, such as obesity and cancer to both gender male and females. [11], suggests that "might lead to either a broadly energized state including reduced emotional,

motivational, and cognitive strain or reduced physical and mental fatigue; together, they all might contribute to reduced sleepiness experiences". And "Epidemiological surveys implicate poor sleep as a predictor of cardiovascular risk, and meta-analyses have reported that shorter sleep duration, an emerging condition in the western population, is associated with a higher incidence of cardiovascular events" [32].

Fig. 4 shows in term of less lunch break time, labors continuing working in the term of sitting, standing, and taking over heavy load, and poor work spacing, heavy motors heating temperature, motors noising, vibration and eating meal continue working, no walk no rest which can be increasing fatigue, fatness, and physical health hazards. and while in the one-hour lunch break time he/she can get a meal, walk, and nape wherein prevents employees long hours continue working and increases the body moment which can be a positive impact on the labors physical health at work.

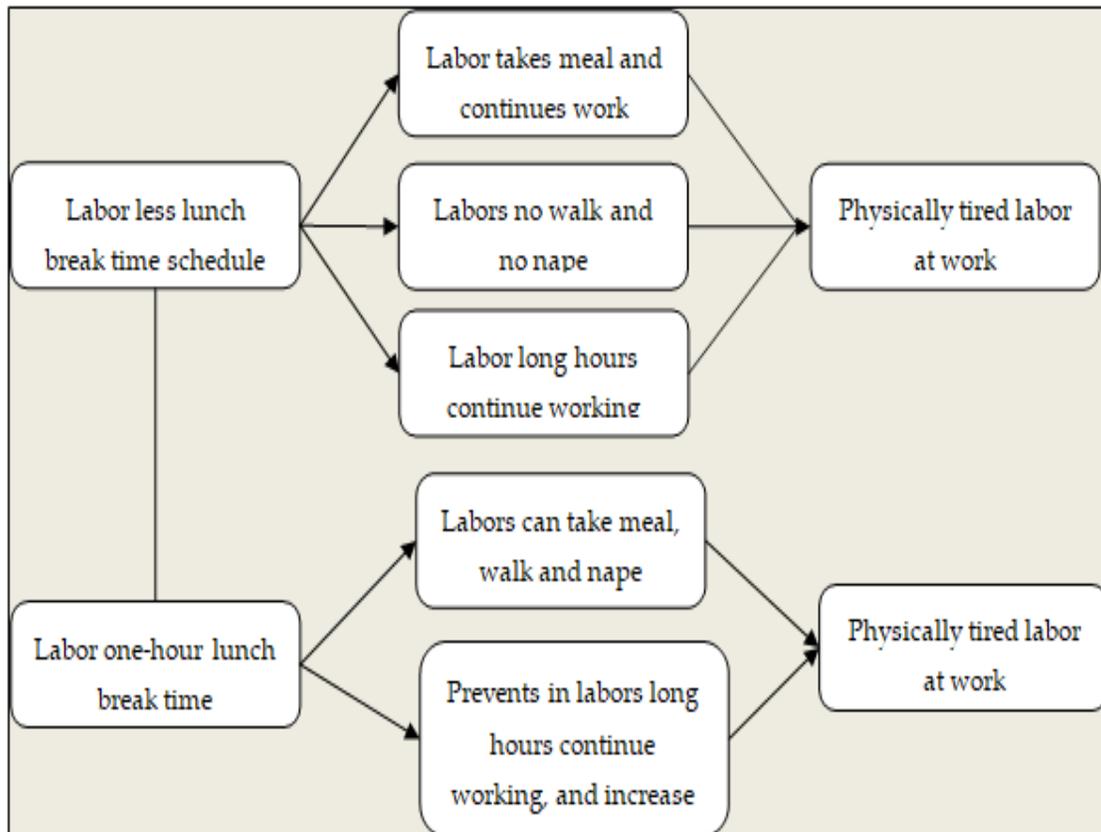


Fig. 4. Lunch break times and employee’s physical health

3.2 Labors Mental Health

One-hour lunch break time plays an important role in managing laborers' comfort ability-freedom in solving much personal work which can positively impact on the labors mental health at work. In this time laborers can get refreshments (i.e., nap, meal, walk-talk, and personal work) which can be a positive impact on laborers' mental health. And, while in less lunch break time, he/she cannot get a meal, nap, and walk-talk and solve personal works which can be increased the negative impact on the employee's mental health at work. According to [33] state that mental illness is pervasive and costly. In England, the economic cost of mental illness in the 2009-10 financial year has been estimated to equal £105.2 billion, and similarly [34] In the United States estimates for the period 2001 to 2003 indicate that serious mental illness is associated with an annual loss in earnings totaling \$193.2 billion. Moreover, [35] In the United States, for example, approximately half of the overall cost of depression is attributable to the reduced productivity of workers. And [36] the establishment-level productivity is related to workers' average mental well-being (specifically job satisfaction). And [37] states that mental health-related productivity loss varies across

occupations. [38] reports that women generally experience more internalizing problems, mental health conditions, and general health issues than men. And [39] mainly women are absent from work more repeatedly. Mental illness [40], and stress [41] are also associated with greater intra-individual variability in sleep timing and duration, and in adolescents, it is strongly associated with poorer psychological wellbeing [42].

Employees in terms of less lunch break time cannot be mentally uncomfortable. In this time employees doing long hour's speedy work and no time to get a nap can be increasing mentally tired employees at work. And while the one-hour lunch break is a comfortable time about getting the mental refreshment and comfortability at work. A recent times study [18] reports people with mental health problems have consistently been found to have relatively high propensities to be absent from work. And presenter is a related concept, which has at various times been defined in the literature either as i) the act of attending work while ill [43]; or ii) "decreased on-the-job performance due to the presence of health problems" [44]. And [18] states that depression, anxiety, and emotional disorders, and overall mental health have been cited as some of the strongest correlates of presents.



Plate 3. In less lunchtime mental health at work

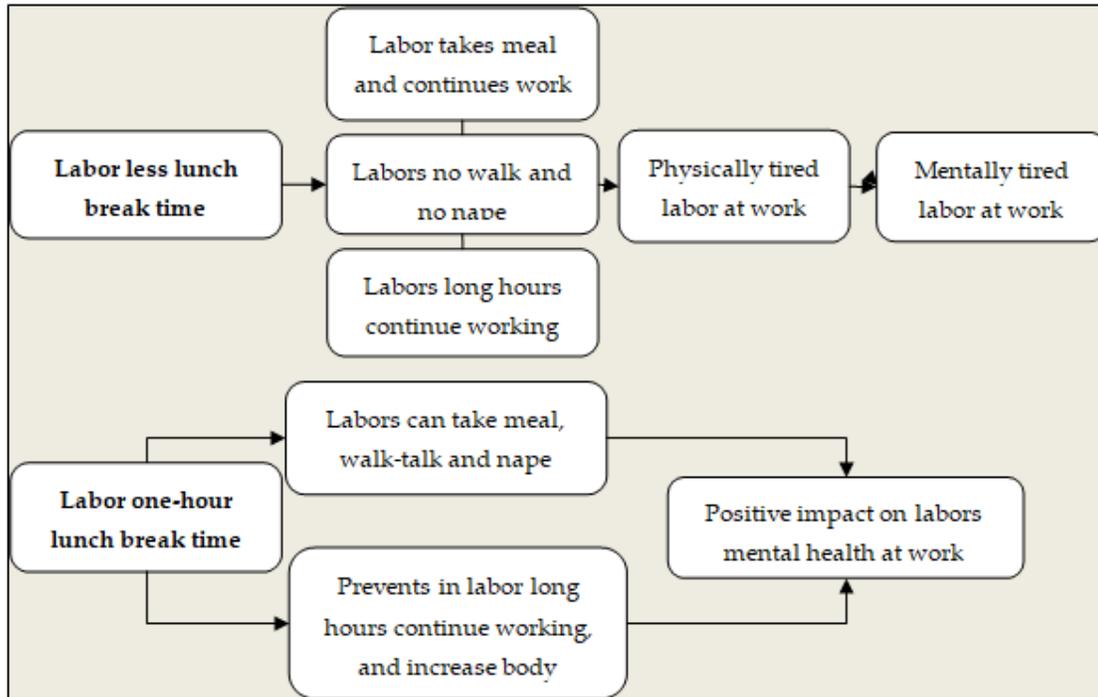


Fig. 5. Lunch break time and employees mental health

Fig. 5 shows in the less than one-hour lunch break time he/she cannot take a meal, walk or nap wherein he/she to be mentally tired at work. And in comfortable lunch break time, he/she can take a meal, nap, and walk/talk which can a positive impact on the employee's mental health at work. Moreover, in comfortable lunch break time employees taking walks, nap, and communicate with colleges may be created friendly mentally fresh employees at work. And in shorter break time they cannot solve personal work which can side effect on the employee's mental health at work. For example, he/she want to rest or solve personal work but could not get a nap or solve personal work because of less lunch break. In these short break times, employees may are not mentally ready to continue work. And while in the term of one-hour lunch break time he/she can solve personal work (i.e., nap, walk with colleges, talk with family and children, or pick up children, or solve the personal work) wherein he/she can be mentally ready and satisfied to continue work. And while employees will be physically-mentally satisfied at work, it may a positive impact on employee absenteeism. Such as prior study report that data from different countries around the world indicate that mental health problems are a cause of several employees dropping out of work. In the

Netherlands, around 58% of work-related disabilities are related to mental health [45]. In the UK, it is estimated that around 30-40% of the sickness absence is attributable to some form of mental illness [46]. Mental health problems have an impact on employers and businesses directly through increased absenteeism, a negative impact on productivity and profits, as well as an increase in costs to deal with the issue [46]. And the connection between the long working week and health symptoms [1]. And fatigue and poor work-life balance are shown due to long hours working [2].

3.3 Labor's Performance

"One-hour lunch breaks time" plays an important role in positively impacting labors' performance. In this lunch break employees doing a body off from work to get refreshment physical-mental comfortability which positive impact on the labor physical-mental health including prevents labor fatigue at work. When labor will not be physically-mentally fatigue at work thus he/she can be able to give a better performance at work. And while they will be physically-mentally active at work it to be involved in positively impacting the laborers' performance at work. [47], reports that intra-individual variability in sleep duration and

timing has also been linked to worse cognitive function and academic performance, and [48] increased incidence and severity of affective disorders such as depression.

Fig. 6 shows in term of labors less lunch break time, taking meal and continue working, no time for the nape and machines noised and vibration to be increased fatigue employees and fatigue performance; and while the “one hour lunch break time” prevents fatigue and depression and maintains positive impact on the labors physical-

mental health with which positively impacts on the employee's performance at work. Moreover, [51] human performance declines in the afternoon (the so-called 'post-lunch dip'). And, [52]“Daytime sleepiness and nodding off also occur at approximately 14:00–16:00 h”. And at this time, often accidents and fatigue [53]. And “A short nap, especially during the post-noon nap zone, has been shown to restore alertness and promote performance without the inconvenience of sleep inertia that is associated with longer naps” [54].



Plate 4. Indication of physically and mentally fatigued labors and fatigue performance. [49] reports that a brief nap enhances subsequent alertness and performance during both times periods of the day, [50], and night

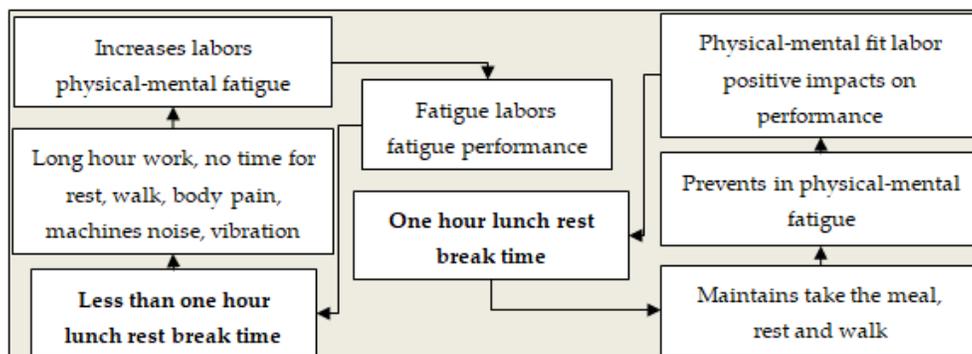


Fig. 6. Lunch break time and employees performance

3.4 Labor’s Stress on the Job

Laborers' "one-hour lunch break time" plays an important role in preventing stress on labor at work in the organization. One million people's stress on the job made ill them, and around five million deeply stressed at work there [4]. Increasingly, however, research is indicating that irregular sleep patterns are as detrimental as insufficient sleep [55]. Laborers less lunch break times to be involved in the stress work in the organization. Such as work stress links with long hours of work, alternation, violence, downsizing, sexual harassment, and job shifts [56]. The employee's long hours work in terms of less lunch break time to be stressful work. In terms of less lunch break time, laborers working between 8-9 hours' work to be involved in continue stress work schedule including laborers stress lunch break time. In this break time he/she may not take the refreshment (i.e., meal, nap, walk/talk, and to solve personal work) wherein he/she may

feel physical-mental tired at work. When laborers are physically-mentally tired it may side effect on laborers performance at work. While labor is tired and has poor performance wherein he/she may feel stress at work. according to [57] states that stress on the job, increasing the toll of disadvantages, decreasing productivity, wastes time on work and health care costs. According to [58] reports that accumulating evidence shows that there is also considerable intra-individual variability in sleep timing, which may exceed interindividual variability. And [59]. Intra-individual variability often arises due to large discrepancies between sleep timing on work vs. free days, termed 'social jetlag'.

Additionally, [60] reports that stigma was also considered a source of perceived stress. Consistent with this, previous studies have found stigma to be related to stress not only in people living with the infectious disease [61] but also in the nurses caring for them [62].



Plate 5. Employee’s less lunch break time and its work stress

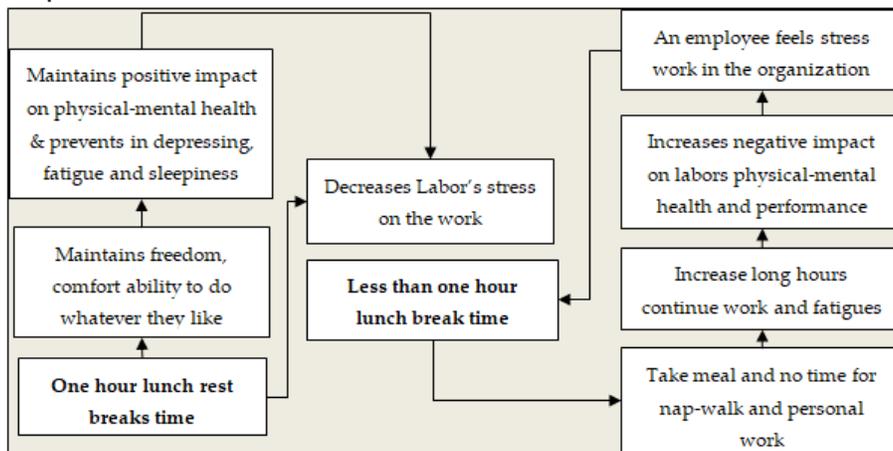


Fig. 7. Lunch break time employees stress on work

Fig. 7 shows that one hour lunch break time maintains laborers' comfortability to prevent stress in the organization; and while in the less lunch break time increases suffering in taking meal and continue working, no time for rest, no time for walk-talk and personal work wherein employees feels stress work in the organization. [63] noticed that stress might mediate the linkage of stigma to health outcomes. And [64] "chronic stress usually manifests itself in various ongoing physical and/or psychological symptoms" and work stress rises "metabolism, blood pressure, cholesterol level" an employee's physical and mental condition, and waste of time on the working link with stress. In this viewpoint, it can be perceived that the term of one-hour lunch break time can help in preventing long hours continue working, the risk of chest pain, shoulders pain, back and neck pain, poor body moments, eyes burning, depression, and headaches which involves in reducing labor's stress on work. Moreover, in the one-hour lunch break time can be maintained freedom-comfort ability wherein he/she can be solving many things (i.e., taking the meal, taking rest, taking walk-talk and solving any kind of personal work) which can be prevented stress on workers at work.

4. CONCLUSIONS AND IMPLICATION

The positive impact on employee's physical health, psychological health, performance, and low stress on work links with a one-hour lunch break. Long hours work as 8 hours, 9 hours or 10 hours including overtime work with less than one hours break time to be involved in long hour continue work. This rest time concedes stress-rest time likely unhealthy break side effects on labors physical health-psychological health, performance considers stress work in the organization. such as the study indicated "the connection of long working week and health symptoms" [1]. Observationally, long hours of work in a day is a sign of less lunch break which is the actual long-hour work creates the health-related problem. Such as long hours of work and fatigue, and poor work-life balance are due to long hours working [2]. Labor's comfortable lunch break time maintains physically-psychological active labor. In this time he/she can solve many things naps, meals, and walk-including personal work. As suggested, "Sleep deprivation can lead to an inflammatory response that may cause the development of cardiovascular disease processes" [3]. And "Mental-physical condition effects on productivity, effectiveness, personal

health, and quality of work" [5]. While reducing "Blood Pressure" in hypertensive involves in falling risk of death and disability enhances important factor for employee's health [6]. And, "Daytime sleepiness and nodding off also occur at approximately 14:00–16:00 h" [52]. And at this time, often accidents and fatigue occur [53]. The one-hour lunch break time employees can be managed a happy work environment, friendly environment including the positive impact on employees-organization profile. The study suggested that labors physical health, psychological health, performance, and stress issue are controlled with the help of one hour lunch break time, and this time maintains a positive impact on employees in taking nape, meal, rest, and walk and talk to solve personal work and prevents in employees' health and performances issues. Lastly, this study suggested that further fruitful outcomes for both organization and labor can be achieved through the "one-hour lunch break time schedule in the futures study".

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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