

## A Study to Determine the Importance of Regular, Protected Breaks for Nurses

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### Abstract

Public health systems and epidemiologists explore the importance and reality of mental health issues. Nurses work hard and have the dedication which is required to do their job and yet a lot of Nurses do not feel they are getting the required time to have a rest and recharge. Hospital policies around the world stipulate that Nurses who are scheduled for 12 hour shifts should get a minimum of two to three 15 minute breaks and one uninterrupted meal period [1]. The reality of patient demands and understaffed departments means they are lucky to get five minutes to themselves. Historically Nurses tend to put their patients' needs first before they sit down, go to the bathroom, or grab a bite to eat. It has been said that due to staff shortages in the late 1970s, Nurses' work hours were gradually extended, and today it is more common for Nurses to work 12 hour rotating shifts [2].

At the end of these 12 hour shifts, Nurses are exhausted with the added weight of knowing that they face the same challenge tomorrow. This study will take a look at the value of having regular protected breaks and the benefits this may bring to the organisation and their own mental health.

The term "importance" within the study title will refer to three variables being patient safety, productivity and staff happiness. The term "regular" will imply a set time scheduled in the day to

have breaks and the term “protected” is the timing has been guaranteed. This study will aim to discover whether or not RPB are essential to support some components in patient safety, productivity and in staff happiness.

### **Objectives of the Study**

1. Explore whether Nurses regard Regular Protected Breaks (RPB) as a patient safety strategy
2. Discuss whether RPB improve performance levels
3. Determine whether RPB impacts staff happiness

### **Research Questions**

1. Do Nurses regard RPB as a patient safety strategy?
2. Do RPB impact performance levels?
3. Do RPB impact staff happiness?

### **Hypothesis**

Null Hypothesis (H0) - RPB are not regarded as a patient safety strategy

Alternative Hypothesis (H1) - RPB are regarded as a patient safety strategy

Null Hypothesis (H0) - RPB do not improve performance levels

Alternative Hypothesis (H1) - RPB do improve performance levels

Null Hypothesis (H0) - RPB do not impact staff happiness

Alternative Hypothesis (H1) - RPB do impact staff happiness

### **Methods**

The study utilized a two methods system. The first method used as an instrument to collect the data, will be a survey, utilizing a mixed approach by extrapolating conclusions by asking predominantly closed ended questions. Even though it was intended testimonials where given as open ended, this supported the notion of discovering more about the Nurses options. The second method was to get the results through percentages and bar graphs. This provided a clear description of the results in ascertaining whether RPB where are important to the Nurses.

### **Results**

The study survey results are suggestive of the following Hypothesis:

Alternative Hypothesis (H1) - RPB are regarded as a patient safety strategy

Alternative Hypothesis (H1) - RPB do improve performance levels

Alternative Hypothesis (H1) - RPB do impact staff happiness

To conclude, the results suggest that:

- RPB are regarded as a patient safety strategy
- RPB do improve performance levels
- RPB do impact staff happiness

The survey has suggested RPB support a mental health regime for Nurses and a safe environment for patients. Nurses are suggesting that a timely routine protected break will benefit organisation. The overall consensus from majority of Nurses is that a RPB will impact mental health positively as Nurses feel happier and more relaxed and this will improve their wellbeing and improve patient safety and productivity.

## Glossary of Terms

ANA	American Nurses Association
CEMACH	Confidential Enquiry into Maternal and Child Health
CG	Clinical Guideline
DoH	Department of Health
IT	Information Technology
JCIA	Joint Commission International Accreditation
KM	Knowledge Management
KT	Knowledge Transfer
LDR	Labor and Delivery Room
NICE	National Institute for Health and Clinical Excellence
OC	Organizational Culture
OB	Organizational Behavior
REC	Research and Ethics Committee
RM	Registered Midwife
RN	Registered Nurse
RPB	Regular Protected Breaks
UAE	United Arab Emirates
USA	United States of America

## Introduction

The importance of mental wellbeing as primary health concern in epidemiology is a fast growing concern. Not only is it a global epidemiology apprehension but an ongoing endeavor in regards to Nurses mental health due the workload they do on a daily basis for society.

According to the American Nurses Association, 2014 ANA report, Nurses require undisturbed break time on each shift to stabilize emotional and physical demands required to provide high quality care to patients and to keep more front-line Nurses at the bedside. Ideally, Nurses scheduled for 12 hour shifts should get at least one hour break and hospital policies should offer this as a standard. Taking breaks is part of a normal shift with Nurses. But the reality of patient demands and short-staffed units some Nurses did not feel comfortable leaving the unit for their breaks when their staffing is not adequate to meet patient care needs. Sometimes a lot of new Nurses, in particular, had issues with time management, they weren't sure how to incorporate breaks into their shifts. So they simply skipped their meal breaks. Nurses on several units were not taking or were unable to take their meal breaks during shifts.

When Nurses do not receive breaks they become fatigued and that leads to a decrease in patient safety [3]. In addition to health and safety risks, the effects of fatigue and sleepiness have financial ramifications. Direct costs to employers include increases in health care costs, workers' compensation costs, early disability costs, recruitment and training, (American Nurses Association, 2014).

Fergusons report suggests that employees who take breaks are more productive and creative. Breaks keep workers focused and engaged in their work which enables them to complete their tasks more accurately with fewer errors [4].

This study brings to light evidence from a multicultural population of Nurses and Midwives. The study highlights opinions on whether they think or feel that RPB will in essence make a difference to their productivity, happiness and improve patient safety.

## **Background of the Study**

For better understand of the research content; the term "importance: within the study title will refer to three variables being patient safety, productivity and staff happiness. The term "regular" for the study purpose will imply a set time scheduled in the day to have breaks and the term "protected" is the timing has been guaranteed. The term Nurses will include all Nurses and Midwives who perform 12 hour shifts providing direct bed care.

Some research suggests that hospital policies around the world stipulate that Nurses who are scheduled for 12 hour shifts should get a minimum of two to three 15 minute breaks and one uninterrupted meal period [1]. The reality of patient demands and short-staffed units means they are lucky to get five minutes to themselves. Nurses tend to put their patients' needs first before they sit down, go to the bathroom, or grab a bite to eat. At the end a long shift, Nurses and Midwives are exhausted with the added weight of knowing that they face the same challenge tomorrow. This study will take a look at the value of having regular protected breaks and the benefits this may bring to the organisation. The purpose of this study to understand the importance of regular breaks for Nurses and Midwives who are working 12 hour shifts in inpatient area of Danat Al Emarat Hospital for Women and Children Hospital. This research aims to explore the Nurse's opinions towards protected breaks and describes how it could possibly affect the quality of work and attitude of Nurses.

According to a recent report of the National Institute of Occupational Safety and Health, working both extended shifts and overtime can have adverse effects on worker health but because of the global staff shortage, medical facilities continue this practice. Longer shifts has been proven to cause fatigue, burnout and increased in medical errors. This is why regular breaks are essential. It can replenish lost energy and decrease the risk of errors due to prolonged task performance. However, according to the American Nurses Association's (ANA) 2016 Health Risk Appraisal, over half of Nurses work through their breaks because staffs often sacrifice their break to provide care to the patients. There are known instances that staffs are skipping their breaks and even some have gone through an entire shift with few sips of water leading to dehydration and exhaustion. However, there are no proven reports that those instances impacts the quality of care provided. In fact, most of the time, staffs can actually work without breaks and accomplish the whole 12 hour shift without errors.

The main goal of the research is to evaluate if there is really a value for having protected breaks and if so, factors that affects skipping breaks should be identified and a strategy must develop for employers and Nurses to work together to ensure that every Nurses/midwives gets an adequate break time during their shifts. This is a mental health issue, which impacts public health. A November 2014 report from the ANA stipulated the following quoted points:

“What is the ANA's stance on mandatory overtime?”

- Employers should stop using mandatory overtime as a “staffing solution.”
- Employers should encourage “frequent, uninterrupted rest breaks during work shifts.”
- Employers should adopt official policy that gives Registered Nurses (RNs) the “right to accept or reject a work assignment” to prevent risks from fatigue”

The researchers of this study are looking at this particular problem as the study hospital as it has a multicultural diverse team of Nurses. Therefore it may be that these statements may not apply in the Middle Eastern environment. The study will unfold as it move's forward.

### **Statement of the Problem**

Currently, the study centre has 149 inpatient direct care bed side Nurses who work a 12 hour shift. There is no clearly defined structured format to allow Nurses to have RPB. The study centre is not sure whether this structure will improve outcomes or not. Therefore this study will help to decipher the importance of RPB in three areas such as patient safety, productivity and staff happiness.

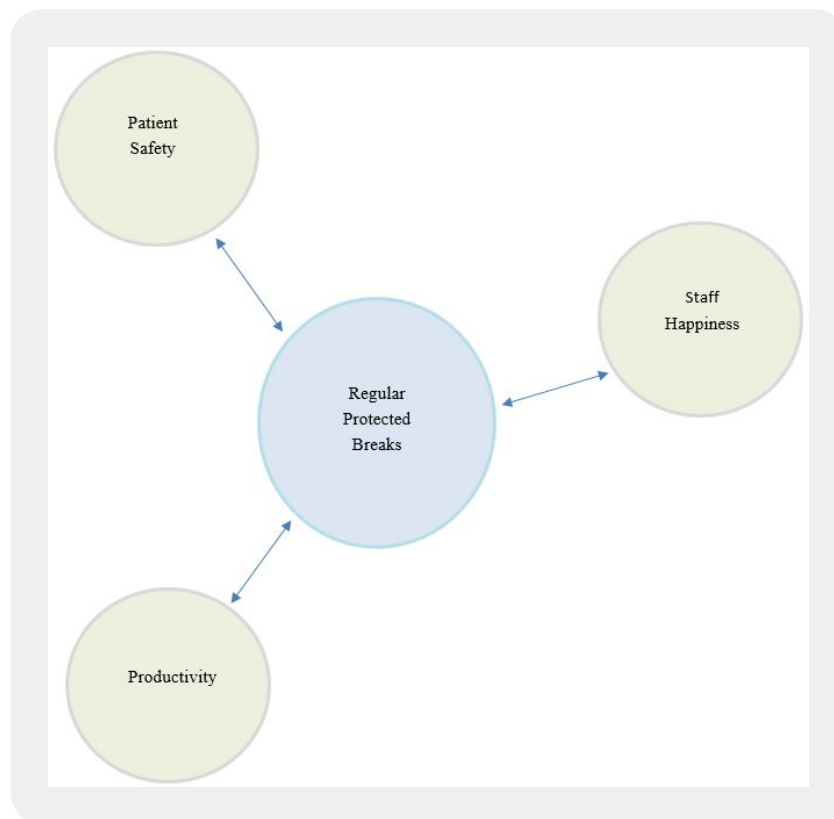
### **Purpose of the Study**

This study was undertaken to determine the importance of Regular Protected Break (RPB) times for Nurses, by exploring perception of the Nurses towards regular protected breaks. Through this, this study helped identify if RPB impacts Nurses happiness.

## Conceptual Framework

A conceptual framework is a model used to design a clear process that will allow the researchers to keep on track on what the main variables are within the study. A conceptual framework is also an analytical tool which can have some variations and contexts. It is used to make conceptual distinctions and can help organize ideas. Conceptual frameworks allow the researchers to capture something real so that it is easier to apply and to remember.

Here below is a simple model which will be used to help the researchers find out how the RPB impact the three variable being: Patient Safety, Productivity and Staff Happiness.



- Dependent Variable:
- Regular Protected Breaks
- Independent Variables:
- Staff Happiness
  - Productivity
  - Patient safety strategy

*Figure 1: Conceptual Framework*

## Objectives of the Study

- 1.5.1 Explore whether of Nurses regard Regular Protected Breaks (RPB) as a patient safety strategy
- 1.5.2 Discuss whether RBB improve performance levels
- 1.5.3 Determine whether RPB impacts staff happiness

## Research Questions

- 1.6.1 Do Nurses regard RPB as a patient safety strategy?
- 1.6.2 Do RPB impact performance levels?
- 1.6.3 Do RPB impact staff happiness?

## Hypothesis

- 1.7.1 Null Hypothesis (H0) - RPB are not regarded as a patient safety strategy  
Alternative Hypothesis (H1) - RPB are regarded as a patient safety strategy
- 1.7.2 Null Hypothesis (H0) - RPB do not improve performance levels  
Alternative Hypothesis (H1) - RPB do improve performance levels
- 1.7.3 Null Hypothesis (H0) - RPB do not impact staff happiness  
Alternative Hypothesis (H1) - RPB do impact staff happiness

## Brief Overview of the Methodology

The study will utilize two methods. The first method used as an instrument to collect the data, will be a survey, utilizing a mixed approach by extrapolating conclusions by asking predominantly closed ended questions as well as an open ended to discover more about the Nurses option's. The second method will be how the data will be analysed, this will be an evaluation cross sectional design observational study utilizing a percentages and bar graphs. The aim is to test different groups to see if there is a difference between them.

## Structure of the Study

This study will follow a structure which will cover the following elements:

- o Abstract
- o Acknowledgments
- o List of Tables and Figures
- o Glossary of Terms
- o Introduction
- o Background of the study

- o Purpose of the study
- o Literature review
- o Methods and Procedures
- o Results of survey
- o Research findings
- o Recommendations
- o Conclusion

**Assumptions**

- The sample population all speak the English language
- The sample population are inpatient direct bedside Nurses who work 12 hour shifts
- The sample population have given consent to answer the survey questions
- The sample population will be truthful with their answers in the survey

**Scope and Delimitation**

The scope will include all direct inpatient bed side Nurses and Midwives who work a 12 hour shift. Delimitations define what factors the researcher consciously controls for and why they have been eliminated from the study, these will be all outpatient Nurses as well as nursing supervisors and operating theatre Nurses.

**Definitions of Terms**

*Table 1: Definition of terms*

Nurses:	For the purpose of this study, the term Nurses will include all Nurse and Midwives who work in an inpatient setting who provide direct nursing care at the bed side.
Organizational Behavior (OB):	The study of human behavior in corporate settings, the interface between human behavior and the organization, and the organization itself, organizational behavior can be divided into three levels.
Regular Protected Breaks (RPB):	Breaks which include one 15 minute break before noon, one for 30 minutes for lunch and another break for 15 minutes in the afternoon on a regular basis without any disturbance.

**Literature Review**

According to the American Nurses Association’s (ANA), 2016 Health Risk Appraisal report, over half of all Nurses work through their breaks, not getting adequate time for rest and renewal can cause adverse health



consequences and can impact patient safety as well. Hospital Nurses are often working long hours without breaks or meal periods to care for patients. Employees who take breaks are more productive and creative [5].

Regular breaks keep workers attentive and engaged in their work which enables them to complete their tasks more accurately with fewer errors [4]. Breaks can also reduce work related stress. Taking regular breaks can give the brain time to think about the task and stimulate new ideas as well as make the task seem less tedious “Without any downtime to refresh and recharge, we’re less efficient, make more mistakes, and get less engaged with what we’re doing”. A stressful issue at work can contribute to negative behaviors which may affect Nurses’ attitude towards the patient and/or co-worker unintentionally. By taking a break away from the issue or having lunch or a snack, employees return re-energized and able to tackle the next task with positive behavior. Employers and Nurses need to work together to ensure that every Nurse gets - and takes - adequate break time during their shifts. Emerging evidence suggests that increasing meal periods and work breaks in various occupational settings relies heavily on changes in organizational culture. Although promising, research including larger randomized controlled trials is needed to evaluate the effectiveness of these methods for increasing Nurses’ work and meal breaks and reducing occupational stress.

To provide 24-hour care, hospital staff Nurses often work overtime and consecutive 12 hours shifts, without adequate meal or rest breaks. Declines in functioning related to health provider fatigue can lead to risks in safety issues for patients and Nurses alike. The occupational health officer can help in assessing the effects of Nurses’ long work hours and unable to have break periods on employees’ health, educating the staffs on the importance having regular breaks during 12 hour shift, and implement programs to improve the working environment. Overall findings suggest that the capability and collaboration of an occupational health officer in the hospital setting could significantly improve the health and safety of staff Nurses [3].

The majority of Nurses viewed adequate quality break spaces as important in terms of their potential to positively influence staff, patient and facility outcomes. Stress, rest breaks and the quality of break areas were some of the significant factors contributing to their view regarding the study. The results of this empirical study support the conclusion that improvements in healthcare facility policies regarding regular staff breaks, as well as the creation of better-designed break areas, can be of significant benefit for Nurses and the patients that they serve. The implications of adequate quality staff break areas for Nurses’ health, performance, job satisfaction and retention [1].

The relationship between working long shifts without regular breaks and safety outcomes is complex and may be influenced by several factors, including patient perception, workload, number of consecutive 12 hours shifts, and how effectively fatigue is managed and supported by the management. Current evidence regarding effects of working long shifts on Nurse performance, cognitive functioning, and patient outcomes is inconclusive [6]. However, evidence points to a link between long shifts and suboptimal patient outcomes and healthcare errors and safety. Currently, there are no effective measures that can completely eliminate the negative effects of working long shifts without having a regular protected breaks and there are no clear guidelines to update the Nurse administrators and Nurses about how to effectively manage shift length and overtime.

Although missing breaks and/or meal periods was not directly associated with a higher risk of making errors, there are adequate and reasonable factors that support Nurses to have a regular protected break.

A research of Restorative Design Features for Hospital Staff Break Areas revealed that improvements in the restorative quality of break areas may significantly encourage Nurses to take break and improve Nurses' satisfaction and stress reduction, potentially leading to improved care for the patients they serve [7].

In a survey of Nurses in Texas, 38 percent of the respondents reported that they had committed a fatigue-related error that could've impacted patient safety. As Nurses, we shouldn't work while fatigued because it can damage our health and impair our ability to provide safe, competent, empathetic, and conscientious care to our patients. Many healthcare facilities have begun to limit how many consecutive 12-hour shifts Nurses can work in an effort to decrease nursing fatigue, reduce sentinel events, and increase workplace and patient safety. Some state boards of nursing and professional organizations have issued position statements requesting that if Nurses must work 12-hour shifts, the last 4 hours should be away from direct bedside care [8]. Even though there are potentially serious consequences of working while feeling fatigued, healthcare providers are often reluctant to intervene and raised concerns relating to Nurses who are still working while experiencing fatigue.

The study takes into consideration that when both the management team and Nurses create an awareness about nursing fatigue, they can work together to quickly intervene appropriately and provide adequate management of resolving the underlying problem.

## **Introduction**

Epidemiology is defined as the study of the distribution and determinants of diseases in human populations. Mental health is one of the most important factors which is often ignored. Descriptive epidemiologic studies are important in specifying the rates and distribution of disorders in the general population. The two major estimates of rates in epidemiology are prevalence and incidence. Nursing mental wellbeing is a critical component of primary healthcare and goes ignored due to the expectations and the quality of a Nurse. The fact remains that Nurses usually do not complain. This study will assess the impact of RPB on mental health, patient safety and productivity.

## **Methods and Procedures**

This study utilized a semi structured questionnaire tool in a form of an online survey with a mixed method approach to capture the Nurse's importance of regular protected break times. Percentages will be analysed and described in bar graphs.

This study will utilize a probability sampling technique as this sampling is useful when a sample from a larger population is chosen by random selection. The sample size will be achieved with a confidence interval of 95% and with a margin of error of 5%.

## Research Design

Evaluation cross sectional descriptive study design utilizing a mixed method approach.

### *Descriptive Research*


This type of research will describe the characteristics of the population that is being studied. This methodology will focus on what important facts are brought about by having RPB and if there are any differences.

### *Cross-Sectional Survey*

A cross-sectional survey collects data to make inferences about a population of interest (universe) at one point in time. Cross-sectional surveys have been described as snapshots of the populations about which they gather data. Survey Monkey over a two month period - easy to capture at convenient timing.

## Research Sample Population

The study population size is 148 inpatient direct bedside care Nurses who are working in the inpatients units. These Nurses are all working a 12 hour shift. When calculating on the Raosoft calculator using a margin of error of 5% and a confident interval of 95% the calculator has calculated that the sample size should be 108 in order to statically significant. This study managed to capture 115 results even though the sample size suggestion was 108.



The image shows a screenshot of the Raosoft calculator interface. The interface is titled "Raosoft" and features a blue header with a circular logo. Below the header, there are four input fields with corresponding labels and instructions:

Question	Input
What margin of error can you accept? <small>5% is a common choice</small>	5 %
What confidence level do you need? <small>Typical choices are 90%, 95%, or 99%</small>	95 %
What is the population size? <small>If you don't know, use 20000</small>	148
What is the response distribution? <small>Leave this as 50%</small>	50 %

At the bottom of the interface, a blue bar displays the result: "Your recommended sample size is 108".

## Inclusion and Exclusion Criteria

### *Inclusion Criteria*

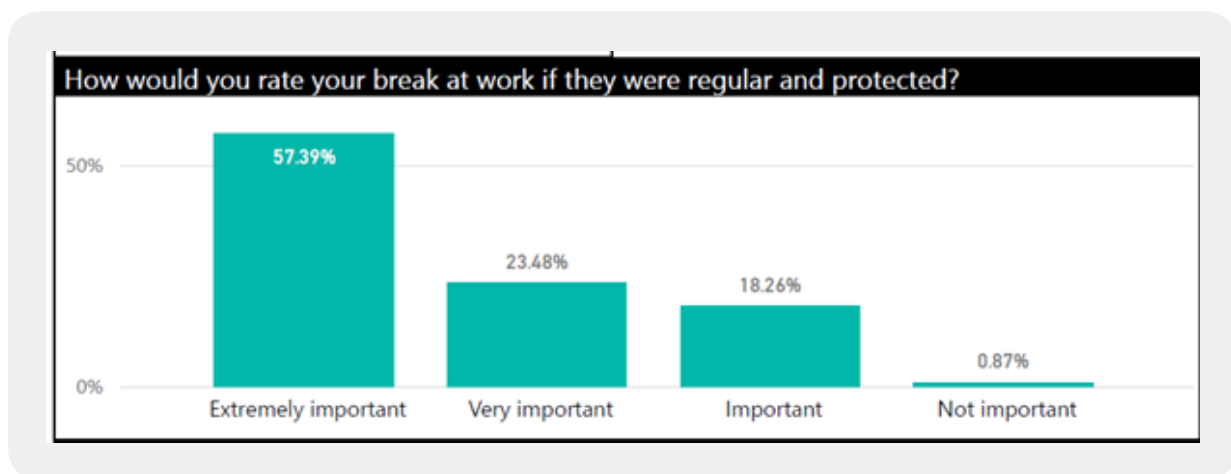
- All inpatient bed side Nurses who work a 12 hour shifts

### *Exclusion Criteria*

- Any outpatient Nurses
- Any Nurses who do not do direct patient care
- Any Nurse who does not work a 12 hour shift

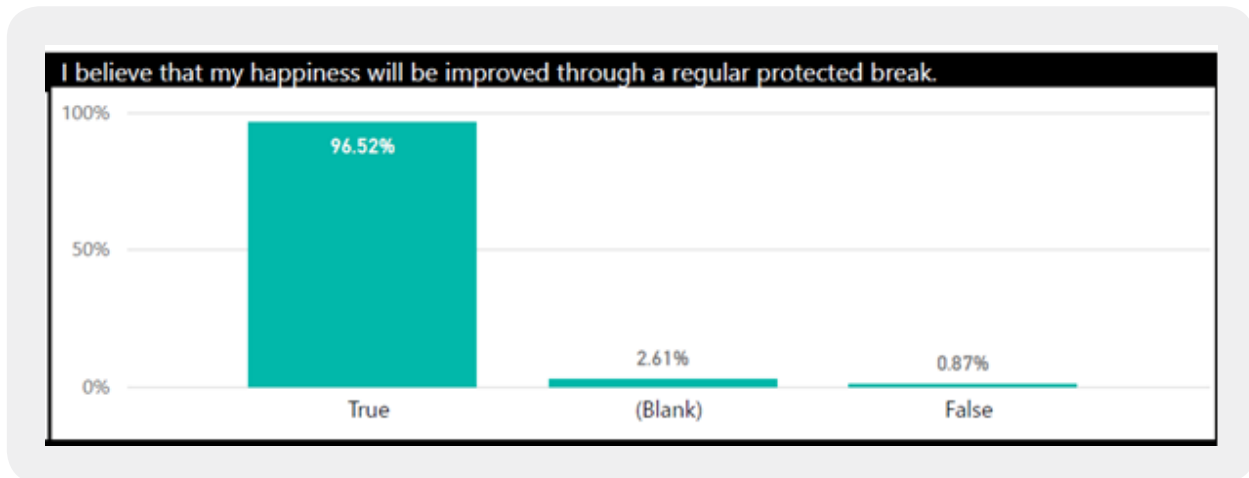
## Research Findings and Discussion

The findings are shown in the tables below, depicted into a bar graph for easy reading. An explanation of the graph is provided below each table.



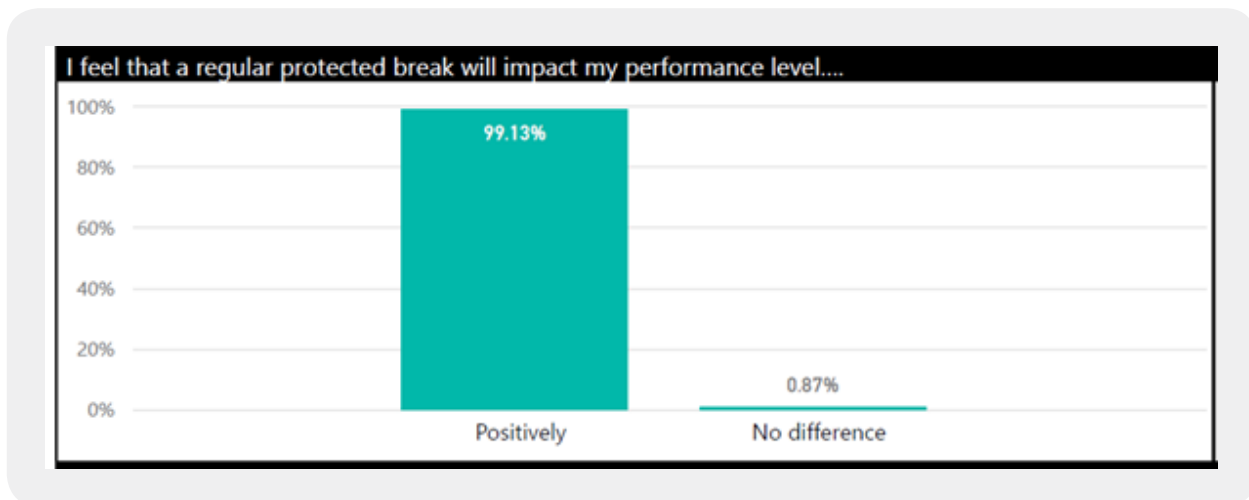
*Figure 2: How would you rate your break at work if they were regular and protected?*

Figure 2 demonstrates how Nurses rate their breaks as, 57.39% thought that breaks are extremely important, 23.48% think they are very important and 18.26% think they are important. Less than 1% thinks that they are not important with the total of 99% thinking RPB are important.



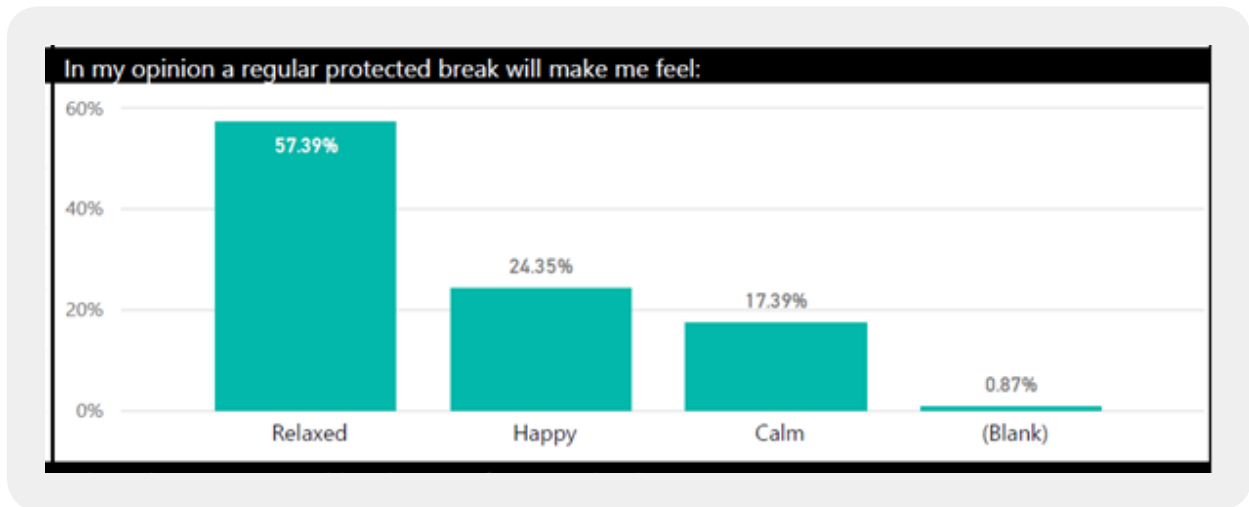
*Figure 3: I believe that my happiness will be improved through a regular protected break*

Figure 3 indicates that Nurses believe that 96.52% of their happiness will improve through a regular protected break. Less than one percent did not believe this.



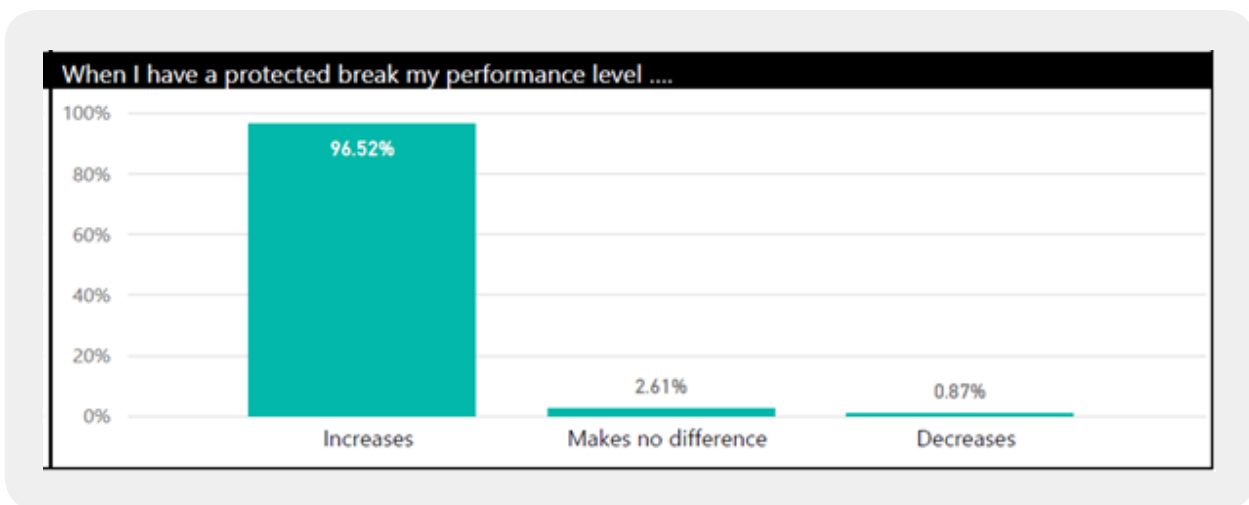
*Figure 4: I feel that a regular protected break will impact my performance level*

Figure 4 suggests that only one percent of Nurses believe that a regular protected break will make no difference to performance levels. Over 99 percent believe that it will make an impact on performance levels.



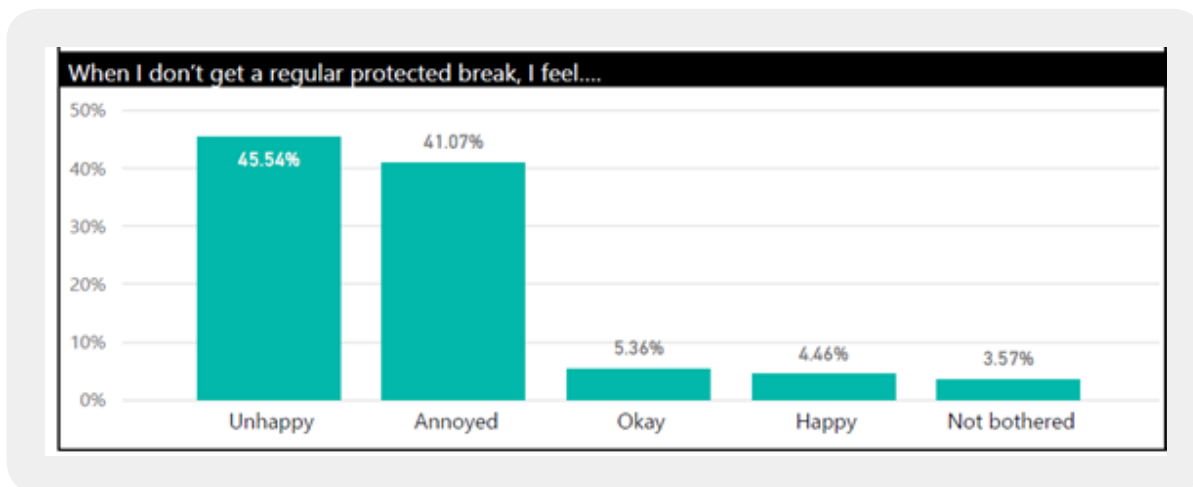
*Figure 5: In my opinion a regular protected break will make me feel:*

Figure 5, demonstrates that over 99 percent of Nurses believe that a RPB will make them feel positive such as: Relaxed, Happy, Calm. Less than one percent had no opinion.



*Figure 6: When I have a protected break my performance level....*

Figure 6, suggests that performance levels are increased, approximately three percent suggest RPB will make no difference in performance.



*Figure 7: When I don't get a regular protected break, I feel....*

Figure 7, suggests that 45.54 percent of all Nurses are unhappy when they do not get a RPB, 41.07 percent feel annoyed. With a total of 87 percent feeling negative towards this. This state of mind must somehow impact the care provided to patients. The other results suggest that they are Okay or not bothered whether they have a break or not. The vast majority will have suggested that RPB will impact their happiness.

### **Research Survey Discussion**

The survey has displayed evidence that suggests that in order to support a vigorous mental health regime for Nurses and a safe environment for patients, Nurse need a timely routine protected break. The overall consensus is that a RBP will impact mental health as the Nurse will feel happier and more relaxed and this will improve wellbeing and improve patient safety and productivity.

### **Word Cloud**

The word cloud below allowed the researchers to capture the common and dominant words that the Nurses used to describe what RPB meant to them. The most dominant word used was “Happy”. This automatically suggests that Nurses will be happier if they have RPB therefore their productivity and patient safety efforts will improve.





Sometimes in some departments like L3 I have seen Nurses without food or beak for more than 14hrs which is unhealthy at all. (A)

## Conclusion, Recommendations and Interventions

Happiness is an important part of nursing mental health, as this reflects in the Nurse's attitude and the work performance. The nursing leadership team could consider to look at the results of this study and work toward a solution on how to provide a system that all Nurses get their RPB.

This study has drawn attention to some favorable suggestions on how to improve staff happiness and to improve patient safety. Mental health epidemiology is a very big important factor in public health and a lot of work related issues and challenges such as exhaustion and wellbeing is affected. This study hopes to illuminate the points of taking good care of Nurses and providing them the rest they require in order to function at peak performance.

## Acknowledgments

We would like to take a few moments to thank the most important people who have helped us make this study a success. Firstly, we would like to thank my Ms Brenda Flynn our CNO, for her guidance and encouragement.

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