#### Abstract

Purpose: The purpose of this study was to use retrospective analysis of actigraphy data to describe activity levels for patients undergoing inpatient rehabilitation. This study also examined the differences between activity levels of the different areas of therapy. The final aim of this study was to examine the affect of demographic factors, and injury characteristics on activity levels.

Method: Fifty individuals with Traumatic Brain Injury (TBI) undergoing inpatient rehabilitation wore accelerometers. Activity Counts (ACs) were summarized in one-minute intervals. ACs, demographic and outcome variables were analyzed using descriptive statistics and general linear regression analysis.

Results: During active therapy patients averaged 241.3 +/- 97.8 AC, which decreased to 142.2 +/- 74.1 during non-active therapy. Recreational time had an average of 112.8 +/- 59.5 AC, and sleep time had an average of 26.7 +/- 14.8 AC. Using predetermined definitions of physical activity, patients were determined to be inactive during therapy and sedentary/inactive for large portions of their stay. Linear regression analysis showed that the main factor with a negative association with physical activity is age. Discussion: The findings of this study demonstrate that patients undergoing inpatient rehabilitation are largely inactive or sedentary. Although age was determined to have the largest impact on physical activity, the other demographic and outcome measures analyzed by this study along with other confounders' impact on physical activity require further study to determine the best way to safely increase patient activity.

# **Measurement of Traumatic Brain Injury**

# (TBI) Inpatient Activity Levels

# Through

# Accelerometry

Internship Practicum Report

Presented to the Graduate Council of the

Graduate School of Biomedical Sciences

University of North Texas

Health Science Center at Fort Worth

In Partial of the Requirements

For the Degree of

## MASTER OF SCIENCE IN CLINICAL RESEARCH MANAGEMENT

By

Jeffrey Ramsey

Fort Worth, TX

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#### ACKNOWLEDGEMENTS

There are several individuals who I would like to thank for their guidance and help throughout the course of this project. I'd like to thank Dr. Simon Driver for his guidance during the entire internship. I would also like to extend my thanks to the staff at the Baylor Institute for Rehabilitation: Dr. Katherine Grobe, Libby Callender, Anne Woolsey, Monica Watford, Maria Cole, Danielle Carlton, Amber Merfield, and Lacy McDonald for making this internship a truly enjoyable experience. I would also like to extend a special thanks to Dr. Monica Bennett for providing assistance in utilizing statistical methods to analyze my results. I would also like to thank Dr. Cameron Millar, and Dr. Stephen Mathew for providing their time and guidance. Finally I would like to extend my thanks to my major professor Patricia Gwirtz for facilitating this internship, and for her guidance during this internship and in the formulation of my thesis.

# TABLE OF CONTENTS

List of Tables	vi
List of Figures	vii
Chapter 1	1
Introduction	1
Chapter 2	2
Internship Project	2
Background and Literature	2
Specific Aims	3
Significance	5
Methods	5
Inclusion/Exclusion Criteria/ Sample Population	5
Data Collection/Analysis	6
Results	8
Sample and Demographic Summary	8
Patient Activity and Project Aims	9
Discussion	15
Limitations	17
Summary and Conclusion	18
Chapter 3	19
Internship Experience	19
Appendix A	20

IRB Approval Documents	21
Appendix B	31
Daily Journal	32
References	116

# List of Tables

Table 1. Summary of Demographic and General Clinical Information	9
Table 2. Summary of Average Activity Counts per Minute	10
Table 3. Correlations Between Average Activity Counts During Different	11
Activities	
Table 4. Clinical Assessments at Admission and Discharge	14

# List of Figures

Figure 1. Scatter Plot of Occupational vs. Physical Therapy Average Activity	12
Count per Minute	
Figure 2. Active vs. Non- Active Therapy Average Activity Count per Minute	13
Figure 3. Active Therapy vs. Recreational Time Average Activity Count	13
per Minute	

#### CHAPTER 1

## **INTRODUCTION**

Traumatic Brain Injury (TBI) is a medical condition that affects millions of Americans. Individuals who sustain a TBI generally have a loss of their cognitive and motor skills. Currently individuals who sustain a TBI also concurrently suffer from various comorbidities due to the inactivity associated with their condition. In order to prevent these comorbidities, and improve the quality of life for TBI patients, an adequate exercise regimen is required. The goal of this internship practicum project is to properly characterize and quantify the amount of activity that TBI patients receive in inpatient rehabilitation. This will be achieved by using data provided by the Baylor Institute for Rehabilitation (BIR). Hopefully this study will provide the quantifiable data required to properly characterize the amount of activity that TBI patients experience, and be a stepping-stone to providing more intense therapy regimens.

#### **CHAPTER 2**

#### **INTERNSHIP PROJECT**

## **Background and Literature**

An average of 2,100,000 head trauma patients are treated annually in emergency departments in the United States each year [1]. The recovery process for traumatic brain injury (TBI) patients begins immediately following their injury, and it is reasonable to believe that patients will have improved independence and disability measures due to the efforts of rehabilitation professionals. However, although patients receive treatment to address their disability issues, they still are largely inactive or sedentary [2]. Due to prolonged periods of inactivity, or inadequate activity, TBI patients may experience cardiac deconditioning [3]. At least 79% of TBI patients experience moderate deficits, and 60% experience severe deficits to their expiratory reserve volume [4]. TBI patients also experience a loss in muscle mass, and muscle strength due to their prolonged bed rest [5]. This cardiac deconditioning, loss of respiratory capacity, and loss of muscle mass impacts the quality of life for TBI patients. In order to prevent the consequences of prolonged periods of inactivity that TBI patients are experiencing, an exercise regimen with an appropriate amount of intensity to increase patient workload act and cardiorespiratory fitness must be implemented.

Many studies have examined the benefits of high intensity therapy regimens during inpatient rehabilitation. These studies have shown that early intensive therapy can speed up the recovery process for TBI patients [6], and may relieve deficits that were brought about by the TBI [7]. These findings make it reasonable to assume that increased therapy intensity will also lead to improved outcome measures. Due to the perceived benefits of intensive therapy, many

professionals are looking for ways to improve the rehabilitation process for their patients. An increasingly popular approach is to have patients also participate in group therapy. The greatest time allocation for group treatment is spent in recreational time, followed by speech, occupational, and physical therapy [8]. Other studies have also shown differences in outcome measures scores based on age, and functional dependence at discharge. For example, older patients who suffer from a TBI generally have worse disability and independence scoring measures despite generally having a less severe acute injury than younger patients [9]. This may be due to the fact that younger patients generally participate in higher intensity occupational and physical therapy.

The cardiac deconditioning and exercise intensity studies listed above examine crucial areas of therapy, however, there is a lack of literature that presents quantifiable data of patient activity during inpatient rehabilitation. It has been shown that a valid way to measure and classify patient activity is through the use of accelerometry and actigraphy [10]. Through the use of accelerometry, it is possible to quantitatively classify patient activity intensity, and draw statistical correlations between patient demographics, outcome measures, and gain an understanding of the best way to implement an intervention to improve the health of TBI patients in inpatient rehabilitation.

## Specific Aims

The data utilized in this project was previously gathered in a larger study called the TWILIGHT study. This study concluded in December of 2016, and has not yet been published. TWILIGHT focused on gathering patient sleep activity data; however, it also concurrently gathered the daily activity data utilized in this project. The goal of this practicum project was to, utilize activity data

to properly characterize the different categories of inpatient activity, and to determine if there are any factors that serve as reliable predictors of inpatient activity levels. The specific aims for this project are as follows:

**Aim 1:** Describe activity levels (activity counts, intensity, duration) for patients undergoing inpatient rehabilitation during therapy (physical and occupational), non-active therapy, recreational, wake, and sleep time periods.

Aim 2: Examine differences between activity levels of patients during active therapy (occupational and physical therapy), non-active therapy (anytime from 7:30am-3:30pm not spent in physical or occupational therapy), recreation (6:00 am-7:30am, and 3:30pm-10pm), wake time (6:00am- 10:00pm) and sleep time periods (10:00pm- 6:00am).

Aim 3: Examine the relationship between demographic (race, gender, age) and injury related characteristics of patients and activity levels.

The hypotheses for this internship practicum project were:

**Hypothesis 1:** Between the broad time categories, the highest average activity level will occur during active therapy time; the second-greatest average activity level will occur during non-active therapy time; the third-greatest average activity level will occur during recreational time; and the lowest average activity level will occur during sleep time. Further, the activity levels of patients during non-active therapy, recreational, and sleep time will mostly fall under the sedentary/inactive category. There will be an increase in patient activity during active therapy time compared to

other categories, however the activity level during this time will likely fall in the inactive category and not reach adequate levels of cardiac stimulation.

**Hypothesis 2:** In regards to therapy intensity, younger patients will receive higher intensity therapy regimens in comparison to older patients. Therapy regimens, and therefore, activity level will also not differ by race, or by gender. Patient disability rating scale (DRS) and functional independence measure (FIM) scores, at admission and discharge, will show a negative and positive correlation respectively with patient activity counts during active therapy time.

## Significance

The importance of properly characterizing patient activity during inpatient rehabilitation in TBI patients cannot be understated. Quantifying patient activity during the different parts of their stay in inpatient rehabilitation gives healthcare professionals a realistic idea of the amount of activity that patients are receiving, and what can be expected of future patients. Characterizing patient activity also opens up the discussion regarding possible interventions that can be implemented to improve activity and outcomes. Once intervention methods are developed and implemented using activity data, quantitative goals and expectations for patient activity are possible to set and achieve.

#### Methods

#### Inclusion/Exclusion Criteria/ Sample Population

The population in this study was determined by the inclusion/exclusion criteria set by the TWILIGHT study. The inclusion criteria for this study were patients who had a moderate to

severe TBI, were between the ages of 18 to 70 years of age, were within 3 months of the date of injury, admitted to inpatient rehabilitation, and English speaking. The exclusion criteria were patients who wore the actiwatch for three or less days, and had an injury at the C6 vertebra level. Patients whose actigraphy data, or actiwatch was determined to flawed or unusable were also excluded. There were 50 individuals who met the inclusion/exclusion criteria and made up the sample population.

#### Data Collection/Analysis

Patients in this study were originally consented in the TWILIGHT study. For this project several outcome measures were analyzed to determine patient coma severity, and the level of each patient's disability and independence. The measures that were collected were the Glasgow Coma Scale, the Functional Independence Measure, and the Disability Rating Scale. The Glasgow Coma Scale (GCS) is the most widely used scale of comma severity [11]. The Functional Independence Measure (FIM) measures patient independence both at the time of admission, and the time of discharge from inpatient rehabilitation [12]. The Disability Rating Scale (DRS) also measures patient disability at admission and discharge. These scores were entered into a summary Excel spreadsheet for each patient.

The activity data in this project was gathered through the use of actiwatches, which recorded each patient's activity level in activity counts (ACs). Accelerometers were used to measure patient ACs. The type of accelerometer used to generate this project's data was the Philip Respironics Actiwatch 2. The Actiwatch had a sensor that measured and determined the peak acceleration value from a sample of 32 measures per second. The maximum values for each second were then added together to an accumulated AC value for each minute. For this project

ACs were summarized in one-minute epochs or one-minute intervals [2]. Activity count data can be summarized in several categories. Any AC below 100 can be categorized as sedentary, any AC between 100 and 499 are categorized as inactive, ACs between 500 and 2019 are categorized as light activity, ACs between 2020 and 5998 are categorized as moderate activity, and ACs above 5998 are categorized as vigorous activity [2, 13, 14]. In order for a patient to receive cardiovascular benefits from physical activity, their AC must be at least in the light activity category. The ACs in this study were summarized in one-minute intervals during each patient's stay in inpatient rehabilitation. Patient and variable data gathered for this project originated from several databases. First, each patient's medical record was examined to record each therapy visit, categorize each therapy visit type (physical therapy, occupational therapy), and record the time spent in therapy. These variables were entered into a secure Microsoft Access database.

Once the average AC for each time type were recorded, the total AC for each time type for every subject was calculated and entered into an existing Microsoft Excel spreadsheet. After completion, this spreadsheet contained the average AC for PT, OT, non-active therapy, recreational time, wake time, and sleep time for each subject. This spreadsheet also contained the demographic information, LOS, injury, and scoring measures (GCS, DRS at admit and discharge, and FIM motor, cog, and total at admit and discharge) for each subject. Once the average AC for each time type was entered and calculated this Excel spreadsheet was sent to Dr. Monica Bennett the in house statistician at Baylor for analysis. Dr. Bennett used the spreadsheet data to calculate and describe all quantitative variables using mean, standard deviation, and median. Regression models were then used to determine which patient factors were associated with subject ACs using a general linear regression analysis. A general linear regression analysis was also used to determine the associations between DRS, FIM Motor, and FIM Cognitive at discharge and the average ACs for subjects.

#### <u>Results</u>

## Sample and Demographic Summary

All patients used in this project were located at the Baylor Institute for Rehabilitation in Dallas, TX. Originally 54 patients were enrolled, however four patients were excluded due to technological malfunctions, or the patients did not wear their watch long enough. The general demographic and clinical information for patients in this project are listed in Table 1 below.

A majority of patients enrolled in this project (34) were male and the minority of patients were female (16). The mean age for patients in this practicum project was 43.1 years, however, there was a sizable age range (17-69). A majority of patients were Caucasian (40), while there was a smaller portion of Black and Hispanic patients (5 each). During the course of this practicum project individual patients averaged 54.94 minutes of light activity per day, which accounts for 3.82% of their time in inpatient rehabilitation. This result showed that only 4% of a patient's stay in inpatient rehabilitation is adequately having a positive effect on preventing cardiovascular deconditioning and reaching the threshold associated with the benefits of physical activity.

	N=50
Age (years)	
mean±std	43.1±16.2
Min-Max	17-69
Gender	
Male	34 (68%)
Female	· · · ·
remaie	16 (32%)
Race/Ethnicity	
Caucasian	40 (80%)
Black	5 (10%)
Hispanic	5 (10%)
1	
GCS Motor*	
mean±std	4.1±2.2
Min-Max	1-6
GCS Total**	
Mean±Std	8.1±4.6
Min-Max	3-15
	5 15
Days from Injury to	
Start***	
Mean±std	37.2±19.2
Min-Max	11-90
LOS (days)	
Mean±Std	31.3±12.5
Min-Max	8-61

Table 1: Summary of Demographic and General Clinical Information

\*n=10; \*\*n=40; \*\*\*n=43

Abbreviations: Std= Standard Deviation, Min= Minimum value, Max= Maximum value, GCS= Glasgow Coma Scale, LOS= Length of Stay

Patient Activity and Project Aims

The first aim of this project was to describe activity levels (activity counts, intensity, duration)

for patients undergoing inpatient rehabilitation during therapy (physical and occupational;), nonactive therapy recreational, wake, and sleep time periods.

	N=50
Total	11 00
Mean ±Std	97.8±45.5
Min-Max	34.2-219.7
РТ	
Mean±Std	242.7±105.2
Min-Max	52.5-599.1
ОТ	
Mean±Std	244±105
Min-Max	76-538.8
<b>Combined Active Therapy</b>	
(OT+PT)	
Mean±Std	241.3±97.8
Min-Max	83.3-482.6
Non-Active Therapy	
Mean±Std	142.2±74.1
Min-Max	45.9-331.5
<b>Recreational Time</b>	
Mean±Std	112.8±59.5
Min-Max	20.9-328.9
Sleep Time (10pm-6am)	
Mean±Std	26.7±14.8
Min-Max	7.7-81.3
Wake Time	
Mean±Std	135±65.6
Min-Max	46-335.3

Table 2: Summary of Average Activity Counts per Minute

Abbreviations:, Std= Standard Deviation Min= minimum value, Max= Maximum value, PT= Physical Therapy, OT= Occupational Therapy The results illustrated in Table 2 show the average activity counts for patients throughout their stay in inpatient rehabilitation. The overall average AC in this table, which is from the raw total minute count, shows the overall averages for the respective time categories. These results illustrate that on average patients were largely inactive, or sedentary throughout their stay due to the fact that patient ACs on average were below 500.

The second aim of this project was to examine differences between activity levels of patients during active therapy (occupational and physical therapy), other/general therapy (anytime from 7:30am-3:30 pm not spent in physical or occupational therapy) recreation (6am-7:30am, and 3:30pm-10pm) and sleep time periods (10pm- 6am).

	Physical Therapy (PT)	Occupational Therapy (OT)	Active Therapy (PT+OT)	Non- Active Therapy	Recreational Time	Sleep Time
Occupational Therapy	0.66*	/		• •		
Active Therapy						
(PT+OT)	0.90*	0.90*				
Non-Active Therapy	0.64*	0.76*	0.74*			
Recreational Time	0.56*	0.64*	0.63*	0.91*		
Sleep Time	0.22	$0.46^{\circ}$	$0.38^{+}$	$0.45^{^{-}}$	$0.47^{^{\wedge}}$	
Awake Time	0.65*	0.75*	0.74*	0.98*	0.97*	$0.48^{\circ}$
$*n < 0.0001 \cdot n < 0.001 \cdot + $	(0.01					

Table 3: Correlations Between Average Activity Counts During Different Activities

\*p<0.0001; p<0.001; p<0.01

The results in Table 3 show the correlation between the average ACs during the different time categories that were examined during this project. These results show positive correlations, with statistical significance indicating that individuals who are more active in a given activity or time category are generally also active in a majority of the other respective activities. Figures 1,

2, and 3 illustrate the activity correlations for OT vs. PT, active vs. non-active therapy time, and active therapy vs. recreational time for each individual subject enrolled in the study.

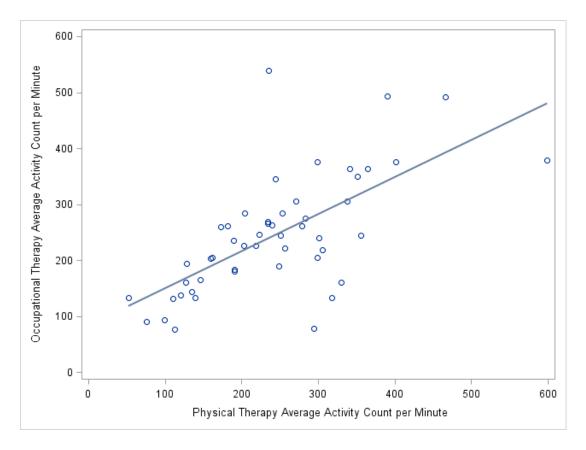


Figure 1: Scatter Plot of Occupational vs. Physical Therapy Average Activity Count per Minute

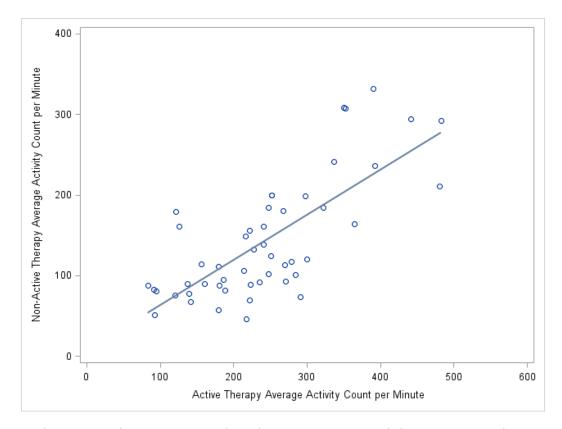


Figure 2: Active vs. Non- Active Therapy Average Activity Count per Minute

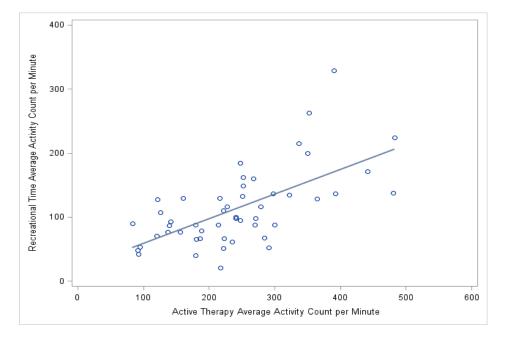


Figure 3: Active Therapy vs. Recreational Time Average Activity Count per Minute

The third aim of this project was to examine the relationship between demographic (race, gender, age) and injury related characteristics of patients and activity levels.

Table 4: Clinical Asse	able 4: Clinical Assessments at Admission and Discharge			
	Admission	Discharge		
DRS*				
Mean±Std	11.2±4.3	5.7±2.4		
Min-Max	5-22	2-15		
FIM				
Cognition				
Mean±Std	11.5±5.4	23.7±4.5		
Min-Max	5-21	13-31		
FIM Motor				
Mean±Std	24.9±11.6	60±10.4		
Min-Max	12-57	31-79		
FIM Total				
Mean±Std	36.3±15.6	83.7±13.3		
Min-Max	17-74	45-109		

Abbreviations: DRS= Disability Rating Scale, Std= Standard deviation, Min= Minimum value, Max= Maximum value, Min= Minimum value, FIM= Functional Independence Measure

The outcome measures listed in Table 4 show a 49% decrease in DRS scores a 106% increase in FIM cognition scores, a 141% increase in FIM motor scores, and a 131% increase in FIM total scores during a patient's length of stay. These measures show the progression and improvement of the patients' condition over their stay. To determine whether these scoring measures, along with factors such as age, race, and gender had an effect on overall inpatient activity and on each individual activity time category, a general linear regression analysis was performed. The results achieved by the general linear regression analysis showed the predictive ability using race and gender to determine activity levels were not significant for this data set. However, the predictive ability of age on activity was significant. Subject age had a beta

coefficient of -1.01 (se= 0.46, p= .0354) with overall physical activity, and beta coefficients of -3.08 (se= 1.02, p=. 0048) for PT , -0.84 (se= 1.09, p=. 4456) for OT, -2.01 (se= .96, p= .0435) for combined active therapy, -1.69 (se= .73, p=.0282) for non-active therapy time, -1.28 (se= .63, p= .0504) for recreational time, -.07 (se= .16, p= .6743) for sleep time, and -1.51 (se= .66, p= .0294) for wake time. The results showed statistical significance in using age to predict overall activity, activity in PT, combined active therapy, non-active therapy, and wake time. Patient DRS scores at admission were not a reliable predictor of patient activity. FIM motor and cognition scores at admission also generally had an unimpressive predictive ability in regards to activity levels. However, FIM motor scores at admission did have a beta value of 3.6 (se= 1.76, p= .0483) with combined active therapy, and -.66 (se= .29, p= .0297) with sleep time.

#### Discussion

Inpatient activity levels in this project were quantitatively characterized and compared. The primary hypothesis of this study was that the highest AC would be in active therapy time, followed by non-active therapy time, recreational time, and sleep time. This was proven to be correct. This hypothesis also stated that a vast majority of a patient's time will fall in the sedentary (<100)/ inactive (<500) activity categories. The data shows that patients experience very similar levels of activity in both PT and OT, which were both classified in the inactive category. This reinforces the notion that on average TBI patients in inpatient therapy are not active enough to prevent the comorbidities of cardiac deconditioning, and loss in expiratory reserve volume.

The analysis of the relationship between demographic, injury related characteristics, and activity levels of TBI patients in inpatient rehabilitation showed that a majority of these factors did not have strong predictive capabilities on activity intensity. A consistent statistically negative correlation could be seen between age and activity levels. This result was statistically significant for every activity except OT. This is surprising due to the fact that OT yielded similar AC results to PT and combined active therapy. This may be due to the fact that OT is more focused on technical skills than overall physical exertion, and as a result, age did not have as large of an effect. There were no statistically significant results showing any difference between the activity levels of patients based on gender or race. This lack of statistical significance could be because patients, regardless of their demographic characteristics, received similar therapy regimens. This lack of significance may also be attributed to the lack of size and diversity of the sample needed to account for potential confounding variables.

The different positive and negative correlation of FIM scores in this project did not support the original hypothesis that FIM values would have a statistically significant positive correlation with inpatient activity counts. Only FIM motor scores at admissions affect on activity levels during combined active therapy and sleep time were statistically significant. Other FIM scores did not show statistical significance. However, it is worth noting that for FIM motor and FIM cognitive p values for PT were close to achieving significance. In the future, designing a study that specifically looks at these FIM motor scores and their relation to PT activity may yield interesting results.

Although many correlations examined by this practicum project did not prove to be statistically significant, the data and results generated by this project may be useful for future studies. The fact that patients examined in this project spent less than 4% of their time with

adequate exercise intensity to prevent cardiovascular deconditioning is concerning. In order to improve future exercise/therapy regimens, more data on the factors that may affect patient activity levels needs to be gathered.

#### Limitations

The first key limitation in this study is that the data gathered did not account for individualized therapy regimens. Although the main goals for this project was to characterize inpatient physical activity, quantify the difference in intensity between occupational and physical therapy, and compare different demographic and outcome measures, the specific needs for each subject were not addressed. Also other therapy types (speech, aquatic, and psychological) were not acknowledged.

The patients enrolled in this project wore their actiwatches for an average of 8.7 +/- 1.8 days. Although the data gathered by these watches has been deemed accurate, some patients removed their watches during the course of their stay. The premature removal of these watches presented some issues when calculating the average ACs for patient activity. This limitation could have slight skewed the data and made AC values seem lower than their actual values. Some actiwatches also had technological glitches. If these malfunctions were found the patients were removed from the sample and their data was not used. Finally, due to the retrospective nature of this project, it was not possible to interact or observe study participants during therapy, or at any other time of their stay. Other confounding variables such as individual therapists involved, and the precise accuracy of the recorded therapy time may have also had an impact on the activity data.

#### Summary and Conclusion

This practicum project began with a goal and desire to properly quantify inpatient activity. While analyzing raw patient activity, the time consuming nature and difficulties of maintaining data accuracy without biasing the data became apparent. This was due to various dead spots in the data where patients either removed their watches, or the watches had some sort of malfunction. Despite these difficulties, the integrity of the data was maintained, and the original projects aims were achieved. Although the data generated by this project is preliminary, the main conclusions drawn is that patient age affects the intensity of patient activity, and patients are not receiving adequate amounts of activity during therapy made this project worthwhile. FIM motor scores at admission had some ability to predict activity levels; patient DRS and FIM utilized in this study correlation's to inpatient activity did not support the original hypothesis. However, the fact that our original hypothesis that race and gender do not affect patient activity levels was not disproven is encouraging. This is due to the fact that even though patients are not reaching the desired threshold of physical activity, there seems to be no discrimination of therapy intensity based on race and gender.

Although the data gathered met the requirements set by the aims of this project, improvements to this project can be made. In the future, designing a study that gathers data to specifically look at daytime activity may yield more significant correlations. Another improvement that could made to this project would be to stress to the patient participants about the importance of wearing their watch at all times.

#### **CHAPTER 3**

#### **INTERNSHIP EXPERIENCE**

From August of 2016, until March of 2017 I worked at the Baylor Institute for Rehabilitation at the Baylor University Medical Center Campus as a Clinical Research Management intern. During this time, I worked primarily under the guidance of Dr. Simon Driver. I also worked with various clinical research coordinators and assisted when necessary on various projects. While working on these projects, I also worked on my primary internship practicum project, which focused on measuring the activity levels of inpatient rehabilitation patients.

The first month of this internship mostly consisted of completing my research proposal, and conducting the necessary literature searches to understand my project subject. After I became comfortable with the material, and completed the necessary trainings, I began to pull the data needed to construct my project databases.

While I was working on my project databases, I was also assisting the research office personnel with various tasks. These tasks mostly consisted of creating case report forms for spinal cord injury studies, writing a standard operating procedure for a health literacy study, and consistently creating and checking databases for ongoing studies at BIR. These tasks, or tasks of a similar nature took up a majority of my time until I began to draft my thesis document in January. At the beginning of the New Year a large portion of my time was spent writing my thesis, and fine tuning my data. I continued to complete tasks such as creating online surveys for the research office, and running descriptive data checks on various project databases.

APPENDIX A

IRB Approval

# **UNT Health Science Center** Office for the Protection of Human Subjects Institutional Review Board BOARD ACTION

IRB Project #:2016-163	Date Submitted: 12-13-2016
Principal Investigator: Stephen Mathew, PhD (with CRM student: Jeffrey	y Ramsey)
Project Title: Measurement of Traumatic Brain Injury (TBI) Inpatient A	activity Levels Through Accelerometry
Sponsur Protacol 🕫	
Department: Clinical Research Management / GSBS	Contact Info: X 5407
In accordance with UNT Health Science Center policy on the protection taken on the above referenced project. Approval, when given is <b>only</b> for implemented without first receiving IRB review and approval. The Principal Investigator must notify the IRB immediately if any new potraining lapses for any of the Key Personnel Involved with the study.	r the project as submitted. <b>No changes</b> may be
	ry 5, 2016
E Projectiva received approximation of orders	
Informed consent(s*) approved as submitted on ;	
You <u>MUST</u> use the version (s) attached rather than previously app documents which bear the official UNTHSC IRB approval stamp to	
*Including:	
i Study Protocol dated	
Investigator's Brochure	approved as submitted.
Protocol Synopsis approved as submitted on:	
Amendment	to the protocol approved as submitted.
Progress Report/Continuing Review completed, project thas receive	ed approval through:
Project has been reviewed. In order to receive approval, you must in must submit one "tracked changes" version showing the markup al synopsis, informed consent, and advertisements to the IRB for review NOTIFIED BY THE IRB.	ncorporate the attached modifications. You no one "clean" copy of the revised protocol
<ul> <li>Project is disapproved for the reason(s) outlined (see attached).</li> </ul>	
Consideration of the project has been <b>DEFERRED</b> ponding resolution	on of the issues(s) outlined (see attached),
Completion of project is acknowledged and all required paperwork	has been received.
🗹 - Special Findings/Other	
The UNTHSC IRB acknowledges that Mr. Ramsey is engaged in resev Baylor Scott and White IRB Protocol,Dr. Mathew serves as his facu	arch and has been listed and added to an existing Ity contact for this CRM internship project.

Dunop

Chairman Institutional Review Spand

2017 Oate

RD Form 2 (revised March 2011)

#### Board Action-page 2

P : Stephen Mathew, PhD IRB Project # 2016 163 Date: 01/05/2017

#### SPECIAL FINDINGS:

CHILDREN: The Board found the participation of children to be approvable under Subpart D of the federal regulations, Specifically, the research satisfies the requirements of:

🔽 45 CFR 46.404

21 CFR

<u>COGNITIVELY IMPAIRED</u>: The Board found the participation of cognitively impaired subjects to be approvable under tederal regulations. Specifically, the research satisfies the requirements of:

F 45 CFR 46.111 (b)

🖵 21CFR 56.111 (b)

- PREGNANT WOMEN: The Board found the participation of pregnant female subjects to be approvable under Subpart B of federal regulations. Specifically, the research satisfies the requirements of: 45 CFR 46.204 (a) (l)
- <u>FETUSFS/NEONATES</u>: The Board found the involvement of fetuses/neonates to be approvable under Subport 8 of federal regulations. Specifically, the research satisfies the requirements of: 45 CFR
- PRISONERS: The Board found the participation of prisoners to be approvable under Subpart C of federal regulations. Specifically, the research satisfies the requirements of: 45 CFR 46.305 (a), (b) and (c)

CTHER:

#### OTHER

Expedited Review Procedures (under 45 CFR 46)

Project 🔽 Approved 🗖 Approved for Continuation 🗍 Modifications approved under the provisions of: 45 CFR 46.110 (b) (1) category (5)

Retrospective Chart Review with PHI I rikage to identifiers; data collected under existing Baylor IRB protocol.

**45 CFR 46.110 (b) (2)** minor changes in previously approved research during the period (of one year or less) for which approval is authorized.

**HIPAA Waiver:** The Board finds this study meets all legal requirements for a Waiver of Individual Authorization under HIPAA pursuant to 45 CFR 164.512 (i) (2) (i)-(v) and approves the request under:

Expedited Review Procedures (21 CFR 56.110 and 45 CFR 46.110)

 Informed Consent Waiver:
 The Board finds this project qualifies for a under the provisions of 45 CFR 46.116 (d) (1), (2), (3) & (4)

Other IRB Approved Research Documentation Includes:

Other Comments:

Student Ramsey has been added to existing Baylor Scott and White IRB Protocol and approved for the collection and analysis of study data.



UNIVERSITY of NORTH TEXAS HEALTH SCIENCE CENTER at Fort Floreh Office for the Protection of Human Subjects Institutional Review Board

# Application for Waiver of HIPAA Authorization for Research Purposes

IRB #: 2016-163

PROJECT INFORMATION

Title of Project: Measurement of Traumatic Brain Injury (TBI) Inputient Activity Levels Through Accelerometry

Name of Principal Investigator: Stephen Mathew, PhD

Impariment Clinics: Rootarch Management

Name of Each Co-Investigator (Study Personnel): Jefflagy Ranney

Name, Address, and Phone Number of Study Sponsor (if any):

PURPOSE OF THE STUDY/OBJECTIVE OF THE RESEARCH: THE RECOVERY PROCESS FOR TRAUMATIC BRAIN INJURY (TBI) PATIENTS IS A LIFELONG UNDERTAKING THAT BEGINS IMMEDIATELY AFTER THE DATE OF INJURY. THE AIM IS TO GENERATE A CLEARER PICTURE OF THE QUANTIL ABLE AMOUNT OF ACTIVITY, IN ORDER TO IDENTIFY WAYS BY WHICH INCREASES IN THE PHYSICAL ACTIVITY OF PATIENTS IN INPATIENT REHABILITATION CENTERS GAN BE ACHIEVED.

#### 1. PROTOCOL/PLAN

b) What is the source(s) of PHI (choose all that apply):	
🔀 Medical Records	
Billing system records	
Laboratory results	
Pathology results	resity th Texa
	alth S Center
Interviews/surveys/questionnaires	
Databases or tissue repositories that were created for operation	onal (i.e. non-research) nurnoses
Other (describe)	(

UNTERSUBIERAA Rosearch Waiver (5/09)



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patients to determine the ACs during each patient's individual and group therapy sessions; and also aims to determine which types of therapy sessions have the greatest increase in inpatient ACs.

d) State the anticipated beginning and end dates of the research (or approximate length of data gathering activities): <u>01/09/2017 to 02/28/2017</u>

c) Give an estimate of the number of records that will be involved in the project: 52

f) Necessity of PIII;

[3] This research could not practicably be conducted without access to and use of the Protected Health Information (PHI) (i.e. Basically, you are unable to do the research without the PHI. For Example, the health information in the medical record is necessary for the case report or reirrospective chart review).

Please caplain why the PHI is necessary for the proposed research related activity: <u>The PHI</u> obtained for this study is necessary for the purposes of this project. The database constructed and used for the analysis of this project will be de-identified and as per IRB requirements only approved study personnel will have access to patient PHI.

g) Is this a retrospective chart review? 🛛 🏹 Yes 👘 🔲 Nu<sup>4</sup>

"If you answered nn, can you get Authorization from the research subjects?	Ves Ves	
--	---------	--

\* If you answered no, explain why it is not feasible to get authorization for this research: \_\_\_\_

**b)** Is the visk to individuals whose information you are using minimal? (i.e. the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those or dinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests)

OR

More than minimal?

X Minimal risk | | More than minimal risk\*

\*If you answered more than minimal, please explain what the risk is: \_\_\_\_\_

## 2. PROTECTION OF DATA

HIPAA requires that there be an adequate plan to protect the identifiers from improper use and disclosure, that there be an adequate plan to destroy the identifiers at the earliest opportunity consistent with the conduct of the research, and that there be adequate written assurances that the PIII will not be reused or disclosed to any other person or entity, unless required by law or by oversight of the research by a regulatory agency.

a) What security measures will you take to protect the

The security measures taken to protect the

UNTHSC HIPAA Research Walver (5/09)

No



#### UNIVERSITY of NORTH TEXAS HEALTH SCIENCE CENTER of For Work Office for the Protection of Human Subjects Institutional Review Board

<b>PIU from improper use or disclosure or reuse?</b> (e.g. they are kept in a locked file cabinet only available to researchers, or they are maintained in a password-protected database and only the researchers have access to the password.) <u>Please</u> <u>Note</u> : List all of the entities that might have access to the study's PHI such as UNI HSC, sponsors, FDA, data monitoring hoards, any others given authority by hew.	PHI are that the PHI is in a double locked office and file cabinel. As shown in the data collection shoet, no PHI, and only patient id, race/ethnicity, age and gender will be in the project database. All data will be maintained in a password-protected database.
b) When and how do you plan to destroy the PIII? If you do not plan to destroy the PHI, please give your rationale.(e.g. there is a plan to break any links to identifiable information unless links need to be maintained, in which case a reason should be given.)	PHI will be destroyed as per Baylor policy and federal regulations.
e) What security measures will you take to assure that the <b>PHI will not be reused?</b> (e.g. "the information will not be used or disclosed for any purpose other than this specific research project")	No PIII will be used or disclosed for any purpose other than this specific research project

## INVESTIGATOR'S CERTIFICATION/ASSURANCE

I certify that the information provided in this request for Alteration to/Waiver of Individual Authorization is complete and correct. I understand that I have the ultimate responsibility for protecting the confidential information of individuals and ensuring the privacy of their protected health information.

allen shen

01/04/17-

Signature of Principal Investigator

(please initial) I agree that subjects will not be identified by name in any presentation or publication related to this research project.

INSTITUTIONAL REVIEW BOARD ACTION (FOR IRB USE ONLY) The University of North Texas Health Science Center Institutional Review Board (IRB) is established in accordance with 21 CFR 56.107 and 45 CFR 46.107.

Based upon the information provided above, the University of North Texas Health Science Center Institutional Review Board (IRB) finds that this waiver request meets all the legal requirements for a Waiver of Individual Authorization under HIPAA pursuant to 45 CFR 164.512 (i)(2)(i)-(v) and approves the request ander:

Exempt status as specified in 45 CFR 46.101 (b)

UN IUSC HIPAA Research Walver (5/09)



UNIVERSITY of NORTH TEXAS HEALTH SCIENCE CENTER at Fort Work Office for the Protection of Human Subjects Institutional Review Board

Expedited Review Procedures (21 CFR 56.110 and 45 CFR 46.110)					
Full board review procedures (21 CFR 56, 188 (b) and 45 CFR 46.188 (b)					
- But they	1/5/2017				
Chair, Institutional Review Board	Date				

#### UNIVERSITY of NORTH TEXAS HEALTH SCIENCE CENTER OFFICE for the PROTECTION of HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD

**Request for Waiver of Informed** Consent Form B

#### IRB # 2016-163

Investigator's Name: Stephen Mathew, PhD

Title of Project: Measurement of Traumatic Brain Injury (TBI) Inpatient Activity Levels Through Accelerometry

Informed consent refers to a process whereby the researcher obtains the willingness of the participant to be included in research once all the necessary elements of consent (specified in federal regulations) have been disclosed. All elements must be fully disclosed so the subject can make an informed decision to participate in research. Thus, when the UNTHSC IRB grants a waiver of informed consent, it is either waiving the requirement of a consent process entirely or the requirement to fully disclose all elements of consent,

Please initial the appropriate blank:

(initial) I am requesting a waiver of the consent process.

IRB APPROVED

of Nerin Toxas

ILIGHT study.

Explanation This is a retrospective chart analysis of an ongoing Baylor IRB appload versity Health Science Course

#### OR

(initial) I wish to refrain from fully disclosing certain elements of consent? If so, please attach a separate document specifying which element (s) and why?

In order for the UNTUSC IRB to grant this waiver, all of the following conditions must be met. Please initial next to each condition stating that these conditions have been (or will be) met.

(initial) The research involves no more than minimal risk to the participants.

(initial) The waiver will not accursely affect the rights and welfare of the perficipants.

(initial) The tesearch could not practicably he carried out without the waiver. "Practicably" means there is no practical way to either implement a consent procedure or disclose all the elements. of consent without joopardizing the validity of the study.

(initial) Whenever appropriate, the perticipant will be provided with additional pertinent information after participation.

Provide a brief explanation as to how your study protocol has met or will meet the above criteria. The retrospective chart analysis of the previously collected non-identified data will be analysed in freus on patient activity while in inpatient rehabilitation.

Investigator's Signature Date IRB Chair's Signature Date\_

Informed Consent Wolver(a) Application version (60/04

University of North Texas Health Science Center

EX4X

Office for the Protection of Human Subjects (OPHS) / Institutional Review Board (IRB)

2016-163 ( 1y)

Research activities that (1) present no more than minimal risk to human subjects and (2) involve only procedures listed in one or more of the categorius below in Section Doe may be revisionly by the IRP through the expected review procedure. Mountal osk means that the nake of human entropated in the proposed research are not greater, considering probebility and insignmude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or leads.

If you believe that your research falls into one of the following categories, please indicate which category or categories you believe a or are appropriate. The IRR Chairperson (or designee) will review your research to datermine if expedited review is warranted and if approval can be granifed. If you have any questions, you may contest the OPHS Office at 817-735-0409

Title of Research Activity: Measurement of Traumatic Brain Injury (TBI) Inpatient Activity Levels Through Acceleromatry

Name of Principal Investigator (Facult	v Memberl:	Stechen Mathew, Ph.D	
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RECEIVED

UNTHSC

Depertment/Program: C inical Research Management (CRM)

DEC 1 3 2016 UNTHSC ULC 1 3 2016

Categories Eligible for Expedited Review: (You can check more than one category, Sheeded.)

Category 1:	Check if applicable:	Check if applicable:	Research Compliance
Clinical studies of drugs and medical devices ONLY when condition (a) or (b) is met:	(a) Research en drugs for which an investigational new drug application is not recurred. IRB APPROV JAN 05 2017	<ul> <li>(b) Research on modical devices for which:</li> <li>(i) an investigational device</li> <li>Decomption application is NOT required OR</li> <li>(ii) medical device is cleared/ approved for marketing and his extrabeling used in accordance with its rar deared/approved labeling.</li> </ul>	Note: Research on marketed drugs that significantly increases the risks or decreases the anceptability of the risks associated with the use of the product is NOT eligible for expertiled review.
Category 2:	Check applicable box:		Indicate volumes and
Collection of blood samples by finger stick, heel stick, ear stick, or venipuncturo from:	<ul> <li>(a) Healthy, non-pregnant adults who weigh at least 110 pounds.</li> <li>Contact OPHS Staff for criteria.</li> </ul>		Indicate forumes and frequency of blood draws,
Category 3:	Check all that apply:	Ampiotic fluid obtained at the	☐ Hair and nall clippings in
Prospective collection of biological specimens for research purposes by noninvasive means.	Placenta removed at delivery Deciduous teeth taken during exfoliation or routine patient care Permanent heats if routino patient care indicates a need for extraction Excreta and external secretions (including sweat) Uncannulated as wa	time of membrane rupture prior to or during labor Supra- and subgingival dontal plaque and calculus, (Cotection is not morp orvas to than routine prophylactru- teers scaling and its done according to accepted techniques) Mucosal and skin cells collected by bacceal scraping or swab, skin swab, or mouth washings	a non-disfiguring menner Sputum collected after seline mist nebulization If research does not Include any of the given Apecimen collections, give a brief description:
Category 4:	Check all that apply:	Magnetic resonance imaging	NOTE: Studies intended to
Collection of data through noninvasive procedures routinely done in clinical practice. Where medical devices are employed, they must be cleared/approved for marketing.	<ul> <li>Physical sensors applied to the budy surface or at a distance AND do not involve input of significant amounts of energy into the subject or an invasion of subject's privacy</li> <li>Weighing or testing sensory acuity</li> <li>Electrocarciography, electroencephalography, thermography, octoction of naturelly pocurring racioactivity, electorelinography ultrasound, diagnostic infrared imaging, doppler</li> </ul>	(MRI) Moderate exercise, muscular strength testing, booy composition assessment, and flaxibility tosting (appropriate to age, weight, and	evaluate the safety and effectiveness of a metical device are NOT eligible for expedited review, including studies of cleared medical devices for new indications. To qualify for this subcategory, the study CANNOT involve general aneatheste, settation of procedums with X-rays or microweves (such as CLICAT Scar, publ.

Expedited Review Form version 04/09 log 1 of 3

Category 5: Research Involving materia(s (data, documents, records, or specimens) that:	Check if applicable; (a) (a) Have already been collected for some other purpose,	Check if applicable: (b) Will be collected for non- research purposes (such as medical treatment or clagrosis)	Does the research protocol fit under this category and is condition (a) or (b) met? IN Yes INO	
Category 6:	Check all those applied for	Will subjects be informed about	Include in the protocol a	
Collection of data from volce, video, digital, or image recordings made for research purposes	research study: Voice Video Digital Image	the recordings7	detailed description of how, when and what extent subjects will be recorded. In addition, describe data storage and confidentiality of the recorded data.	
Category 7:	Check if applicable:	Check if applicable:	Does the research protocol	
☐ Research where condition (a) or (b) is applicable:	□ (a) individual or group characteristics or behavior (resparch on perception, cognition, motivation, Identity, language, communication, cultural beliefs or practices, and social behavior)	☐ (o) Research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality essurence methodologies	fit under this category?	

Tex

Does the study involve storage or banking of human specimens or identifiable private information for use in future studies? Yes  $\Box = N_0 \bigotimes$ 

Does the study involve genetic testing or DN/VRNA extraction? Yes  $\square$  No  $\boxtimes$ 

If any of the answers to the above questions are yes, please ensure that this information is discussed in the informed consent form (if applicable).

Maximum number of subjects recruited for partic pation: 52, Age range of the subjects recruited: 19-70 vrs.

Will this study include any of the following subject popls?

🗌 Pregnant Women	Cognitively Impaired	Prisoners	🗌 Genetas	📙 Military Personnel			
Minors (<18)	UNTHSC employee	s 🔲 Fetuses	UNTHSC students	Patients			
Economically Disaevantaged (homeless, evacuees)							
How will you recruit an	id correspond with subje	ots for this study?					
🗋 Telephone (clease submit telephone script with your submission) 👘 🔲 Referrals							
Advertising (newspaper, email, Daily News, website brochure radio, etc.)							
Will subjects be compensated for their participation? Yee 🔲 🛛 No 闪							
Document payment schedule in the protocol synopsis, and if applicable, the informed consent.							
Will any of the following instruments or methods be used? Check all that apply. Include copies of these materials with your submission:							
Interview (attach so	(ehiig/tqire	Surveys <sup>(1)</sup>	Questionnaires				
🔜 Standardized (published) tests or assossments 👘 🔲 Focus Group (attach guide)							
Does the study involve (check all that apply)							
_ Fainful or aversive	stimuli 📋 🤅	False Feecback	Emotional Stress				
W thholding of critic	sal information	Deception	False Information				

Expedited Review Form version 04/09 pg 2 of 3

#### List all OTHER KEY PERSONNEL sasocisted with this project (co-investigators, study coordinator, study physician, etc.)

#### Is there ≥ STUDENT INVESTIGATOR associated with this project? ∑ Yes | ∐ No

Name of student investigator: Jeffrey Ramsey

Email address of student investigator. Jeffrey.Ramsey@my.unthsc.edu Contact number of student investigator: 713-907-3348 Role/ Respons bilities Collection, analysis and interpretation of data

#### CO-INVESTIGATOR:

Name & Degree \_\_\_\_ Department. \_\_\_\_\_

# Role/ Responsibilities \_

Name & Degree \_\_\_\_\_ Department: \_\_\_\_

Rale/ Responsibilities:

#### STUDY COORDINATOR:

Name & Degree: Dopartment.

Role/ Responsibilities: \_\_\_\_

When submitting your Expedited research to the OPHS Office, please submit <u>2</u> complete packets with the following information contained within EACH packet.

If the IRB materials you submit fail to capture the most necessary information for a complete/thorough review, or if the epplication packet is incomplete, your IRB materials will be sent immediately back to you. Please ensure that the following information is submitted in each packet for a more streamlined "speedy" review of your research project. In addition, please keep in mind that the review process takes time, and research may not be initiated until the application has been approved.

- IRB Application Form (with original PI signature on one copy)
- (2) Protocol Synops a
- (3) Informed Consent Form (if applicable)
- (4) Conflict of Interest I orm
- (5) CITI Training Certificates

lf agplicable."

- (6) Grant Application
- (7) Recruitment Materials (flyers iemails, advertisoments, etc.)
- (8) Surveys/Questionnaires
- (8) Telephone scripts/oral scripts
- (10) Assent Forms/Parental Permission Forms
- (11) Research Agreements
- (12) Letters of permission/cooperation, and/or approvals from othe IRBs

Principal Investigator Signature

Date

APPENDIX B

### DAILY JOURNAL

### Daily Journal

### Week 1

### August 23, 2016

I began today by conducting a literature review for my research project. At noon I ate lunch, and afterwards I continued conducting a review of the relevant literature for my project. After lunch I was handed a TBIMS spreadsheet, which contained a list of studies conducted by the Baylor Institute for Rehabilitation. I was asked to clean up, and organize this spreadsheet.

9-12- Literature Review/Search

12-12:30- Lunch

12:30-5pm- Literature Review/ Search, Revising TBIMs spreadsheet

#### August 24, 2016

I began today by continuing to revise the TBIMS spreadsheet, and continued revising and organizing this spreadsheet after lunch. I continued my literature search regarding traumatic brain injury patient's inpatient rehabilitation experience. Later in the afternoon I gained access to the Baylor learning network, and I completed my assigned training modules.

9-12- Revising TBIMs spreadsheet

12-12:30-Lunch

12:30-2pm- Revising spreadsheet

2pm – 3pm – Literature Search

3pm – 5pm – Baylor Learning System Training

### August 25, 2016

I received an email this morning with data that needed to be added to the TBIMS spreadsheet. I added this data, and again reviewed the organization of this spreadsheet. After I entered this data, I walked to the Baylor Parking Services building to obtain my Baylor badge and parking pass. In the early afternoon I ate, lunch, continued to conduct my literature search, and talked with Dr. Driver about the scheduling of my first advisory committee meeting. Later in the afternoon I was asked by Dr. Driver's clinical research coordinator Libby Callendar to watch Microsoft Access training videos and tutorial so I could eventually help her build Microsoft Access databases.

9-11am - adding data to the TBIMS Dissemination Spreadsheet

11am-11:45am- Walked to Baylor Parking Services

11:45am- 12:15pm – Lunch

12:30-1:30pm-Literature Research

1:30-2:15pm- talked with Dr. Driver about advisory committee meeting, sent email about meeting to Dr. Gwirtz

2:30-4:30pm – Microsoft Access Training Videos and Tutorials.

August 26, 2016

I began today by starting to make a CRF for SCI variables for Libby Calender. I continued this assignment after lunch. At 3:00pm Dr. Driver told me to go home early in order to beat Friday traffic.

9-11:30am- Made CRF for SCI Variables

11:30am-12pm- Lunch

12-3pm – Revised CRF for SCI Variables

### August 29, 2016

After I entered the office today, I went to see Libby Calender to discuss the revisions that I needed to make to the CRF for SCI variables. I began to make the necessary revisions to this CRF, and continued this work until lunch. After lunch I watched more tutorial videos on the creation of a Microsoft Access database.

8:45 am-12pm- Additions/ Revisions to CRF for SCI variables

12:30-1pm- Lunch

1-5pm- Watching tutorials on the creation of an access database.

### August 30, 2016

Today, I started to create a Microsoft Access database for the SCI variables CRF. I worked on this database all day.

8:30 am-12pm- Working on the creation of an access database for the SCI Variables CRF
12:12:30pm- Lunch
12:30- 5pm continued revisions to the Access database

August 31, 2016

After Libby met with Dr. Sikka, Dr. Sikka gave several suggestions on possible coding revisions to the SCI variables CRF. In the morning I began to add these coding revisions. After lunch I attended a meeting in Dr. Grobe's office so she could teach me the basics of how to enter data into SPSS software. When this meeting concluded, I began to enter survey data into an SPSS database for Dr. Grobe's weight gain study.

8:30am-12pm- Revised the CRF for SCI Variables

12-12:30pm- Lunch

12:30-2:30pm- Attended training on data entry into SPSS

2:30-5pm- Began data entry of surveys into the SPSS database

### September 1,2016

When I entered the office today I immediately began entering survey data for Dr. Grobe into SPSS database. I continued to enter this survey throughout the day.

8:25am-12pm- SPSS database entry

12-12:30pm-Lunch

12:30-5pm- SPSS database entry

### September 2, 2016

I began today by entering survey data into SPSS for Dr. Grobe. After lunch we had a meeting to get a general feel for how the studies currently being conducted by this office were progressing. Dr. Driver, and Dr. Grobe both surprised the entire office with chocolate, and told the entire office to go home early for Labor Day weekend.

8:45am-12pm-Database entry 12-12:30pm – Lunch 12:30-2pm- Office Meeting

### September 6, 2016

I began today by entering exercise survey and lab for Dr. Grobe's SPSS database. I continued working on this database until after lunch. At 2:00pm I attended Walk With a Doc, which is an event that occurs on the first Tuesday of every month where former patients can walk with doctors from the Baylor Institute for Rehabilitation. After the conclusion of Walk With a Doc, I continued to enter exercise survey data for Dr. Grobe.

8:30am-12pm- Database entry
12-12:30pm- Lunch
12:30- 2:00pm- Database entry
2:00-3:00pm- Attended Walk With A Doc.
3:00-4:45pm- Database entry

### September 7, 2016

After entering the office today, I began to piece together my research proposal, and I worked on a sample research proposal for my advisory committee meeting. After working on my proposal, I finished some data entry for Dr. Grobe's weight loss study. In the afternoon, I continued working on my research proposal and prepared for my committee meeting on Friday. 8:50-11am- Worked on my research proposal, and prepared for my committee meeting 11-1- SPSS Database entry

1-1:30- Lunch

1:30-5pm Continued research proposal, and committee meeting preparation.

### September 8, 2016

Today I continued to work on my research proposal, and completed my sample research proposal for my advisory committee. I showed a copy of my sample research proposal to Dr. Driver, and he approved of my sample proposal for my committee. Later in the morning I began proofing exercise data that had been previously entered into Dr. Grobe's SPSS database. I continued proofreading, and where necessary correcting previous data entries for the rest of day.

8:40am-10am- Proposal research
10-11:30am- Database entry/proofreading
11:30-11:45pm- Lunch
11:45am-4:30pm- Database entry/proofreading

#### September 9, 2016

I began today by continuing to proofread my sample proposal, and make correction to Dr. Grobe's SPSS database. After lunch I attended my first advisory committee meeting. After this meeting I began to apply the notes and corrections made by my advisory committee to my sample proposal. I also continued revisions for Dr. Grobe

39

8:20-11:30am- Proofread sample proposal, continued to correct SPSS database for Dr. Grobe 11:30am-12:00pm- Lunch

12:00pm-1pm- Advisory Committee Meeting

1pm-3:30pm- Applied notes and corrections suggested by my advisory committee to my sample proposal. Continued to proofread SPSS database for Dr. Grobe

### September 12, 2016

I began today by continuing my literature searches for my project. I talked with Dr. Driver about how to organize project data, and discussed with Libby how to build project database. After Lunch I continued my literature searches and worked on my research proposal.

8:25am-10:30am- Continued Literature searches for project

10:30am – 12:00pm- Began to conceptualize, and discussed with Dr. Driver how to build project database

12:00-12:30- Discussed with Libby Calender how to build project database.

12:30-12:50pm- Lunch

12:50-4:40pm- Continued literature searches, and worked on proposal

### September 13, 2016

After checking my email this morning I met with Dr. Grobe and began to a different kind of survey data. After lunch while I was working Dr. Grobe's database, I received a call from Texas A&M for med school interview on September 15<sup>th</sup>. I talked with Dr. Driver about taking time off for my interview, and he kindly allowed me to leave.

8:30am-9am- Checked emails and briefly worked on research proposal

9am-11:45am- Met with Dr. Grobe, began to enter different time period weight data for GLB study patients.

11:45am-12:15pm- Lunch

12:15pm-4pm- Continued database entry for Dr. Grobe.

4pm-4:10pm- received phone call from Texas A&M to schedule a medical school interview for September 15<sup>th</sup>.

4:10pm-4:30pm- Talked with Dr. Driver about my medical school interview invitation, and about requesting time off for September 15<sup>th</sup>.

### September 14, 2016

After arriving at the office today I continued to conduct my literature searches, and worked on my proposal. I left today at lunch so I could obtain signatures from my advisory committee at UNTHSC, and I attended an afternoon meeting designed to meet Dr. Mathew.

8:45am-12:20pm- Worked on research proposal, and continued literature searches12:20pm- Left to return to UNTHSC to obtain signatures for my advisory committee forms, andprepared for medical school interview.

### September 15, 2016

Attended a med school interview at Texas A&M

## September 16, 2016

I received news of a death in the family and traveled to Houston.

### September 19, 2016

Today I continued to work on my research proposal, and after lunch I continued my literature searches for my proposal. Later in the afternoon I began to make the final revisions for the SCI variables CRF.

8-12--research proposal
12-12:30-Lunch
12:30- 4- Continued literature searches for research proposal, began to make final revisions for SCI variable CRF.

### September 20, 2016

This morning I continued the CRF variable sheet fine tuning. In the after I worked on my research proposal and received several revisions from Dr. Driver.

9am-12pm- CRF variable sheet fine-tuning

12pm-12:30pm- Lunch

12:30pm-4:30pm- Worked on research proposal, received several revisions from Dr. Driver

### September 21, 2016

This morning I continued to make revisions and additions to my research proposal. I left early so I could return to Houston to attend a family funeral.

9am-12pm- Worked on Research Proposal

### September 22, 2016

Attended Family Funeral

### September 23, 2016

I began today by making revisions to my existing research proposal. I then checked Dr. Grobe's weight study data for mistakes, and I finished checking for these mistakes after lunch.

9-10am – Revised existing research proposal
10am-12pm- Checked weight study data for mistakes
12pm- 12:30pm- Lunch
12:30pm-1:30pm- finished checking weight study data for mistakes.

### Week 6

### September 26, 2016

I started today by going into patient medical records in order to determine when patients were actually in therapy, and I began to enter this data into my Microsoft Access database. I continued to enter this data after lunch.

9am-12pm- Began database building for internship project/entry for student project.

### 12-12:30- Ate Lunch

12:30-4:30- Continued for internship project database entry

### September 27, 2016

I started today by continuing to add the suggested revisions to my research proposal from my advisory committee. After lunch I was asked to print patient data for a sacral sparing study so that it could be organized into the project data, and reviewed by Dr. Sikka.

9-12- Continued Proposal Revisal12-12:30- Lunch12:30-4:20- Printed patient data for sacrum study

#### **September 28, 2016**

In the morning I continued to print patient data for the sacral sparing study. This took me longer that I had anticipated, and I realize the reason why I was unable to immediately find certain patients in the database was due to the fact many patients used the Hispanic names, or were deceased. After I completed printing this patient data I organized the printed data for this study into the project binder.

9am-12pm- Printed Patient data for sacral sparing study

12pm-12:40pm- Lunch

12:40pm-3:00pm- Printed data for sacral sparing study

3:00pm-4:45pm- Organized printed data for sacral sparing study.

### September 29, 2016

I began today by continuing to build my project database. After lunch I worked on making revisions to my research proposal. In the mid afternoon I received a phone to interview at the McGovern medical school in Houston for September 30<sup>th</sup>.

9am-11:30am- Continued Access Database building for internship project

11:30-12pm- Lunch

12:00pm- 2:00pm- Continued revisions to research proposal.

2:00pm- Received an invitation to interview at the McGovern medical school in Houston for September 30th

### September 30<sup>th</sup>, 2016

Interviewed at McGovern medical school in Houston, Texas

### **October 3<sup>rd</sup>, 2016**

After arriving at the office today I finished entering specific patient therapy times for my database, and I received the actigraphy data from Monica Watford. Later in the morning I was asked by Libby to come up with a SOP for the health literacy study. In order to do this I began educating myself on what makes up an SOP, and why it is necessary. After lunch I began to work on the SOP, and I made an effort to become more familiar with the actigraphy data for my project.

8:35am- Arrived at the office

8:35am- 10:00am- Continued to build project database, and finished entering patient specific therapy times for internship project

10:20am- Received project actigraphy data from Monica Watford

10:30am- 12:15pm- Libby asked me to come up with an SOP for the health literacy study, and I began educating myself on what makes up a SOP.

12:15pm-12:40pm- Lunch

12:40pm- 3:30pm- Continued to work on the SOP for the health literacy study. I also asked and received the health literacy measure.

3:30pm- 4:40pm- Analyzed and became more familiar with project actigraphy data in order to continue to include actigraphy data in project database.

### October 4<sup>th</sup>, 2016

After arriving at the office today I continued to work on the SOP for the health literacy study. After lunch I showed Libby the SOP that I had completed, and continued to work on my project database.

8:40am- Arrived at the office

8:40am- 11:25am- Continued to work on the SOP for the health literacy study

11:25am-11:50am- Ate an early lunch

11:50am- 3:00pm- Worked on, and showed Libby the SOP that I had completed

3:00pm- 4:20pm- Worked on project access database

October 5<sup>th</sup>, 2016

Worked on Dr. Grobe's GLB survey database and ran descriptives on the database

### October 6<sup>th</sup>, 2016

This morning I worked on Dr. Grobe's GLB database, and completed checking data abnormalities that were discovered after running descriptives on the data. In the afternoon I continued to work on my project database, and began to contemplate on how to organize future data. 8:25am-11:45am- Worked on Dr. Grobe's GLB database

11:45am-12:10pm- Ate Lunch

12:10pm- 4:45pm- Continued to work and build project Microsoft Access database, and began to brainstorm on how to organize future data.

### October 7<sup>th</sup>, 2016

Today after arriving at work, I continued to work on my project database. Later in the morning I was asked by Libby to review some data abnormalities for a Bowel. I finished reviewing this data after lunch, and discussed my finding with Libby. After talking with Libby I began running some quality checks on the data I had currently entered into my database toe ensure that the data entered was accurate.

8:15am-10:25am- Arrived at the office and worked on project Access database

10:25am- 11:40am- Libby asked me to review data for a Bowel study due to some abnormalities in the data.

11:40am-12:10pm- Ate Lunch

12:10pm-3:25pm- Finished reviewing the Bowel study data, and discussed my findings with Libby. After talking with Libby I began running some quality checks on my project data.

### **October 10<sup>th</sup>, 2016**

I began today by continuing to build my project database. I continued to build this database and enter patient actigraphy data after lunch

8:15am – 11:45am- arrived at the office and continued to build my Microsoft Access database
11:45-12:00pm- Ate Lunch
12-4:30pm- Continued Access database building for my internship project.

### **October 11<sup>th</sup>, 2016**

Arrived at the office at 8:20 am. I finished the initial data entry for my project Microsoft Access database. After I finished this initial data entry, I began to make and mail birthday cards for patients currently in the TBIMS.

- Stuffed envelopes
- Put the stamp labels on the envelopes.
- 5pm

#### **October 12, 2016**

Since I completed entering my initial data into my project database, I started today by taking data from my access database, and putting this data into an excel spreadsheet. I continued to transfer this data into the early afternoon. Later in the after Dr. Grobe asked to run descriptives for and review data for her SRAHP survep SPSS database for the GLB study.

8:35am – 11:45am- Gathering project data from Access database, and inputting data into excel spreadsheet.

11:45am- 12:10pm- Lunch

12:10pm-3:15pm-Continued to input and organize data from my Access database into excel spreadsheet.

3:15pm-4:40pm- Reviewed and ran descriptives for Dr. Grobe's SRAHP survey SPSS database for the GLB study.

### October 13, 2016

I came into work slightly late today due to the fact that I had to gather signatures from my advisory committee at UNTHSC. When I arrived the office I continued to review Dr. Grobe's survey data. In the early afternoon I helped Dr. Grobe set up an intervention meeting for the intervention for the GLB weight loss study. After this meeting concluded, I continued to review and edit Dr. Grobe's SPSS database.

10:15am-12:00pm- Reviewed Dr. Grobe's SRAHP survey data and ran descriptives of this data on SPSS.

12:00pm-3:00pm- Helped set up and intervention meeting for the intervention group for Dr. Grobe's GLB weight loss study

3:00pm-4:50pm- Continued reviewing, editing, and revising Dr. Grobe's SPSS database

### October 14, 2016

I began today by continuing to check on Dr. Grobe's SPSS database, and I ate an early lunch. After lunch I worked on organizing a document for Libby, and later in the after I continued to work on my project access database.

8:30am- 11:00am- continued to check Dr. Grobe's SPSS database

11:00am-11:30am- Ate and early Lunch

11:30am-2:25pm- Worked on Microsoft Word document for Libby

2:25pm-5:00pm- Continued to work on Microsoft Access database for internship project.

**October 17<sup>th</sup>, 2016** 

Attended medical school interview.

### October 18<sup>th</sup>, 2016

After arriving at the office today I continued to work on my project Microsoft Excel spreadsheet. After lunch I began to enter lifestyle survey data into Dr. Grobe's SPSS database. Later in the afternoon I continued to enter data from my Access database into my Excel spreadsheet.

8:15am- Arrived at the office
8:15am- 11:30am- Continued to build project Microsoft Excel spreadsheet
11:30am-12:00pm- Lunch
12:00pm-3:20pm- Entered lifestyle survey data into Dr. Grobe's SPSS database.
3:20pm- 4:20pm Continued to work on building project Excel Spreadsheet

### October 19<sup>th</sup>, 2016

I began today by continuing to build my project spreadsheet. Later in the morning I discussed the issues I was having with the project actigraphy data. After lunch I continued to work on my spreadsheet, and discussed how to properly categorize my project data with Dr. Driver.

8:30am- Arrived at the office

8:30am-11:30am- Continued to work on building project Excel spreadsheet and Access database. Also discussed issues with project actigraphy data with Dr. Driver.

11:30am-11:50am- Lunch

11:50am- 4:40pm- Continued to work on Microsoft Excel spreadsheet. Also discussed how to properly categorize actigraphy data with Dr. Driver.

October 20<sup>th</sup>, 2016

Traveled for Medical School Interview

October 21<sup>st</sup>, 2016

Attended Medical School Interview

### October 24, 2016

I came into the office today and talked with Dr. Salisbury about the revisions he needed for his Neuropsych assessment study sheet. I formatted his document and completed the revisions that he suggested. I left early in the afternoon so I could attend a med school interview.

8:15am- 12:15pm- Worked on revising the formatting for Dr. Salisbury's Neuropsych assessment study sheet.

October 25<sup>th</sup>, 2016

Attended med school interview

October 26<sup>th</sup>, 2016

Traveled for med school interview

October 27<sup>th</sup>, 2016

Attended med school interview

### October 28, 2016

After arriving at the office today I read emai;s, mailed birthday for patients in the TBI Model Systems, and brainstormed for ideas on how to decorate the office pumpkin. After lunch I worked on new ideas on how to categorize the time slots in my project excel and access databases, and I began to reorganize my entered data.

### 8:10am- Arrived at the office

8:10am-10:45am- Read emails, came up with ideas for the office pumpkin decoration, put together and mailed birthday cards for patients who were a part of the TBI Model Systems.

#### 11:20am-11:40am- Ate Lunch

11:40am-3:00pm- Worked on new ideas on how to organize project excel and access databases, began to organize data into these databases.

### October 31, 2016

After arriving at the office I began working on entering new sleep, recreational, and other therapy data into my project. Later in the morning I worked on Dr. Salisbury's NP assessment. After Lunch I continued to work on entering data into my access database.

8:05am- Arrived at the office

8:05am- 11:00am- Worked on project Microsoft Access database

11:00am- 12:25pm- organized and revised NP assessment study sheet for Dr. Salisbury

12:25pm-12:50pm- Lunch

12:50pm- 4:15pm- Worked on project Microsoft Access database.

### **November 1, 2016**

After arriving at the office today I continued to work on my project access database. I also talked with Dr. Driver about if I'd be able to have preliminary results so I could submit an abstract by November 7<sup>th</sup>, 2016. I think this goal is somewhat realistic even though I have a large amount of data to enter and organize; however I believe I may have made some errors in earlier calculations that I entered into my excel spreadsheet.

### 8:15am- Arrived at the office

8:15am-12:00pm- Lunch

12:00pm- 4:30pm- Worked on project database

### November 2, 2016

After arriving at the office today I began entering data into my access database. I worked on this database throughout the entire day and realized that I did indeed make some errors in my initial data calculations.

8:15am- 1:00pm – arrived at the office and immediately began to work on data entry.

1:00pm-1:30pm- ate Lunch

1:30pm- 4:25pm- Continued to enter project data.

#### **November 3, 2016**

After arriving at the office today I again began to immediately enter data into my project database. I also realized that it was unrealistic for me to enter my project data, and correct my previous mistakes in time to be able to construct an abstract. I continued to work on this database and ate lunch. Libby also sent me an email asking me to update the conference-scheduling sheet. I began to work on this sheet, however I wasn't feeling well so I asked Anne if I could go home early.

### 8:20am- arrived at the office

8:50am- 12:30pm Worked on project, had to inform Dr. Driver that I would not be able to have my data for an abstract by November 7, 2016. I also ate lunch
12:30- 3:00pm- Continued to work on project data, my chest wasn't feeling well so I asked Anne if I could go home early.

### **November 4, 2016**

After arriving at the office I updated the conference-scheduling sheet for Libby. After lunch I continued to work on my project database and spreadsheet. I also began to correct my previous calculation errors that I made while entering data into my project spreadsheet.

8:30am- Arrived at the office

8:30am- 10:45am- Worked on updated Conference scheduling sheet for Libby

11:25-11:45am- Lunch

11:45am- 3:00pm- Worked on Access database/ project spreadsheet

### November 7, 2016

After arriving at the office today I worked on my project excel spreadsheet, and continued this work throughout the day. I believe that I managed to fully make all of the corrections to my excel spreadsheet.

8:10am- Arrived at the office.

8:10am- 11:30am- Worked on project Excel Spreadsheet

11:30am- 12:15pm- Lunch

12:15pm- 4:15pm- Project excel spreadsheet.

### November 8, 2016

This morning I started my day by properly educating myself on the meaning on FIM, DRS, and GCS so I could properly interpret these scoring measures, and recognize these measures in patients' EMR. I also talked with Dr. Driver about the current status of my project and organization of my project data. We also discussed my med school acceptance and he gave me some advice on how to pay back med school debt and realistically how long that would take. After lunch I continued to work on my project excel spreadsheet and went into patient EMRs to obtain demographic data.

8:00am- Arrived at the office

8:00am- 11:00am – Read literature on the basis of FIM, DRS, and GCS scoring so I could properly interpret and enter scores from patient medical records.

11:00am-12:00pm- Continued studying meaning of FIM, DRS, and GCS scores. Discussed current project status with Dr. Driver, also discussed med school acceptances and how med school costs is basically a mortgage.

12:00pm-12:25pm- Lunch

12:25pm- 4:15pm- Continued to work on project excel spreadsheet

### November 9, 2016

After arriving at the office today I continued to work on my project excel spreadsheet. I also put together birthday cards for members of the TBIMS. After lunch I studied actiwatch specs, and also reviewed Brian's background for his paper. Later in the afternoon I began researching into what it would take to write a proper thesis. I then began reading scholarly articles so I could properly write my background.

7:45am- Arrived at the office

7:45am- 12:00pm- Worked on project excel spreadsheet, and got together birthday cards for TBIMS patients.

12:00pm-12:20pm-Lunch

12:20pm- 2:20pm- Looked up and studied actiwatch specs to gain a better understanding of how the actigraphy data classifies sleep data. Also reviewed and gave some comments on Brian's Background.

2:20pm- 4:10pm- Began researching into how to write a proper thesis, and reviewed accelerometer scholarly articles so that I could include them into my Background.

#### November 10, 2016

This morning I continued to gather information that will be needed to write my project background. I also helped Dr. Grobe set up for her weight loss intervention meeting for the GLB study. After attending the GLB intervention meeting, I studied online resources on how to write a proper code into SPSS so I could run a statistical analysis for my internship project.

8:00am- Arrived at the office

8:00am-12:00pm- Worked on gathering information needed to construct a project background for my internship project

12:00pm- 12:30pm- Helped Dr. Grobe set up her weight loss intervention meeting for the GLB study

12:30pm-12:45pm- Lunch

12:45pm- 3:00pm- Attended the GLB intervention meeting and helped clean up after the meeting
3:00pm – 4:10pm- Studied online resources on what it would to program a code that runs a
proper statistical analysis into SPSS

63

### November 11, 2016

After arriving at the office today I continued to look at examples of how to construct a proper thesis. I went through patient medical records to get the FIM, DRS, and GCS scores for my database. Libby then asked me to work on the SOP for the HL study. I continued to work and completed this SOP after lunch. For the rest of the day I continued to find the scoring measures in patient medical records. After a while I thought that it would be easier to wait until Monday to talk to Monica on where to find these records.

8:00am- Arrived at the office

8:00am- 10:30am- Continued to study on how to construct a proper thesis, went into patient medical records to gather FIM, DRS, and GCS scores.

10:30am-11:15am- Worked on the SOP for the HL study

11:15am-11:35am- Lunch

11:35am-1:30pm- Worked on SOP for the HL study and sent copy of what I completed to Libby. 1:30pm-3:00pm- Continued to gather FIM, DRS, and GCS scores, but then I realized that I should ask Monica if there was a convenient place where these scores were previously recorded for each subject.

### November 14, 2016

After arriving at the office to today I began to add some details to my thesis outline. Later in the morning I emailed Cindy to ask for more information on the TWILIGHT patients and she sent me documents with scoring measures. After lunch I began to add more patients to my access database.

8:15am- Arrived at the office

8:15am- 9:45am- Outlined my thesis and added some outline details

9:45am- 11:20am- Emailed Cindy to ask for information on the TWILIGHT patients. She sent me several documents so I can add some DRS, GCS, and FIM scores.

11:20am-11:45am- Lunch

11:45am- 4:25pm- Worked on adding more patients to my database.

### November 15, 2016

Traveled to med school interview

November 16, 2016

Attended med school interview

#### November 17, 2016

After arriving at the office today I began to add previously missing time slots to my database. After lunch I finished adding these time slots. After adding these time slots I began to clean up the actigraphy data, and add data where necessary.

8:20am- Arrived at the office
8:45am- 11:45am- Added previously missed data times to my access database
11:45am- 12:05pm- Ate lunch
12:05pm-1:00pm- finished adding previously missed times to my access database
1:00pm- 4:15pm- Began cleaning/ adding more actigraphy data to my database.

#### November 18, 2016

After arriving at the office today I began to work on cleaning up my actigraphy data in my access database. After lunch we had a team meeting where we played apples to apples as an icebreaker so everyone can get to know each other a little better. After the team icebreaker I continued to clean my access database and finished my initial cleaning.

9:00am- Arrived at the office

9:00am-11:15am- Worked on cleaning up actigraphy data in access database 11:15-11:40am- Ate an early lunch 11:40am-12:00pm- Worked on cleaning up actigraphy data in access database

12:00pm-1:15pm- Attended a team get to know each other/ icebreaker gathering in the break room.

1:15pm-3:15pm- Worked on cleaning up actigraphy data and finished initial cleaning.

### November 21, 2016

8:10am- Arrived at the office.

8:10am-8:45am- Filed updated address cards for TBIMS patients for Cindy

8:45am-11:15am- Filed updated address cards and other materials for TBIMS for Libby.

11:15am- 11:40am- Ate lunch

11:40am- 4:20pm- Asked Libby for help in making my remaining actigraphy data spreadsheets usable.

### November 22, 2016

8:00am- Arrived at the office

8:00am- 11:20am- Finished entering therapy data.

11:20am- 11:50am- Ate Lunch

11:50am- 3:00pm- Tried to figure out and sort some issues with previous actigraphy data from the original TWILIGHT patients. Talked with Dr. Driver about my journal and the issues I was having with the data. I believe most of the issues are sorted, we'll see.

3:00pm- 4:00pm- Continued to work on Access database, and developed a better way to sort the data.

### November 23, 2016

Traveled for Thanksgiving

November 24, 2016

Thanksgiving

November 25, 2016

Day after Thanksgiving

### November 28, 2016

After arriving at the office today I worked on entering more actigraphy data into my database. After lunch I continued to work on this data. Later in the afternoon I put together and sent birthday cards for TBIMS patient. I finished adding the data for the original TWILIGHT patients and received instructed on how to edit the SOP for the HL study.

8:30am- Arrived at the office

8:30am- 11:25am- Worked on entering actigraphy data.

11:25am-11:50am- Lunch

11:50am- 2:10pm- Worked on actigrpahy data.

2:10-2:45pm- Put together and sent birthday cards for TBIMS patients.

2:45pm- 4:15pm- Finished adding data for the original TWILIGTH patients, received

instructions on how to edit the SOP for the health literacy study from Libby.

### November 29, 2016

After arriving at the office today I again worked on my project database. After lunch I continued to work on this database while concurrently transferring some of the data to my Excel spreadsheet. Later in the afternoon I continued to the HL SOP for Libby.

## 8:00am- Arrived at the office

8:00am- 11:25am- Worked on project database

11:25am- 1145am- Ate Lunch

11:45am- 4:15pm- Worked on Access database/transferring data to the Excel spreadsheet.

Worked on editing the HL SOP for Libby

## November 30, 2016

After arriving at the office today I again began to work on my Access database while transferring data. After lunch I attended a meeting where I observed team members discussing how to implement an enhanced discharge plan. I watched videos online so I could learn how to create an auto calculating spreadsheet for Libby so she could use it for the HL study.

8:10am- Arrived at the office

8:10am- 11:45am- Worked on Access database

11:45am- 12:20pm- Ate Lunch

12:20pm-4:10pm- Worked on learning how to code formula in Excel for Libby, added stuff to the HL SOP. Also attended a meeting about the enhanced discharge planning.

#### **December 1, 2016**

After arriving at the office today I continued to work on my Access database and transferring data to my Excel spreadsheet. I had to leave early today to try and get signatures for my intent to graduate form for the Spring of 2017.

71

### 8:10am- Arrived at the office

8:10am- 12:45pm- Worked on Access database, sent date tracking spreadsheet to Libby, had to leave early to get signature for my intent to graduate form.

### **December 2, 2016**

I arrived at the office late today because I had to turn in my form to UNTHSC. After arriving I continued to work on my Access database, but I mostly spent my time on transferring data to my Excel spreadsheet. Later in the morning I attended the HL launch meeting. After lunch I attended an office meeting, and continued to work on my Access database and transferring data to Excel

9:20am- Arrived at the office

9:20am- 11:15am- Worked on Access database and transferring data to Excel spreadsheet checked the tracking spreadsheet for the HL study.

11:15am- 12:10pm- attended the HL launch meeting

12:10pm-12:30pm- Ate Lunch

12:30pm-3:00pm- Worked on project Excel spreadsheet, attended an office meeting, finishing transferring first group of data from Access database to the Excel spreadsheet.

### **December 5, 2016**

After arriving at the office today I checked my Access database for flaws. Later in the morning I collated exit survey sheets for the TBI GLB study, and conducted several exit interview for the study. After lunch I continued to transfer my data, and later in the afternoon I conducted another exit interview.

- 7:55am- Arrived at the office
- 8:15am- 10:30am- Checked Access database
- 10:30am- 11:00am- Collated exit survey sheets
- 11:45am- 12:05pm- Conducted exit survey
- 12:05pm-12:30pm- Ate lunch
- 12:30pm- 5:00pm- Continued to check and transfer data
- 5:15pm-5:40pm- Conducted exit survey

### **December 6, 2016**

After arriving at the office today I continued to add data to my Access database and worked on transferring my data until after lunch. Later in the afternoon I helped set up walk with a doc, and talked with Dr. Driver and Dr. Bennett about what they may need to finish/properly utilize my database.

7:50am- Arrived at the office.

8:15am- 11:20am- Continued to add data to Access database

11:20am- 11:45am- Ate lunch

11:45am- 1:40pm- Continued to check data in database, added discharge dispositions to database.

1:40pm- 3:00pm- Attended and helped set up walk with a doc.

3:15- 4:00pm- Glanced at Access database, attended short meeting with Dr. Driver and Dr. Bennett about what they may need to finish the database.

## **December 7, 2016**

After arriving at the office today, I worked on adding specific activity data to my Access database. After lunch I continued to add this detailed dat.

7:55am- Arrived at the office.

8:20am- 11:30am- Worked on adding detailed sleep, recreational, and other therapy data for the original TWILIGHT patient to replace the summary slots that were currently in place,

11:30am- 11:55am- Ate Lunch

11:55am-3:30pm- Continued to add detailed data to Access database.

### **December 8, 2016**

Today I worked on adding more detailed data to my database. After lunch I asked Monica for the missing subjects in my data, and continued to add the missing data.

7:50am- Arrived at the office

8:30am-11:20am- Worked on adding detailed data to Access database

11:20am- 11:50am- Ate lunch

11:50am-4:30pm- Added detailed data to the database, asking Monica for the missing subjects in the database, added the missing subject activity data.

### **December 9, 2016**

After arriving at the office today I transferred data from my Access database to my Excel summary sheet. I picked up lunch for Anne's birthday, ate lunch wit the entire office, and in the after I conducted an exit interview and finished some data entry for my project.

7:40am- Arrived at the office

8:15am- 11:30am- Transferred data from Access database to the Excel spreadsheet

11:30am- 12:00pm- Picked up lunch for Anne's birthday

12:00pm- 1:00pm- Ate lunch with everybody

1:00pm- 4:00pm- Conducted an exit interview for the TBI GLB study, finished some data entry for Excel spreadsheet/Access database. Typed and sent an email to Dr. Bennett detailing what I had entered and the outcome measure I still need to obtain.

### December 12, 2016

After arriving at the office today I made the follow up birthday cards for second half of December. After I did this I added the missing DRS, FIM, and GCS scores to my excel spreadsheet. Later in the afternoon Ryan and me made a survey for the EDP study.

8:00am- Arrived at the office

- 8:30am-9:15am- Made the follow up birthday cards
- 9:15am- 11:30am- Added the missing DRS, FIM, and GCS scores to my Excel spreadsheet.
- 11:30am- 12:00pm- Ate lunch

12:00pm- 2:00pm- Added the missing DRS, FIM, and GCS scores to my spreadsheet2:00pm-3:00pm- Ryan and me worked together to edit the survey for the EDP study3:00pm-4:00pm- Checked to make sure me Excel spreadsheet and Access database were up to date and error free.

#### December 13, 2016

After arriving at the office today I checked my database for errors. Later in the morning I spent most of my time going through medilinks and the files in the office. I couldn't find what I was looking for so I emailed Cindy. Early in the afternoon I helped move stuff around the office, and later in the afternoon I stayed late to conduct an exit survey for the GLB TBI study.

8:00am- Arrived at the office

8:45am-11:30am- Checked database for errors, looked for the remaining scoring measures.
11:30am-12:00pm- Ate lunch
12:00pm- 3:40pm- I emailed to Cindy to ask about the location of the remaining scoring

measures, I helped move furniture around the office.

3:40pm-5:00pm- Monica asked me to conduct an exit survey for the GLB study, I conducted this survey

## December 14, 2016

After arriving at the office today I worked on entering data for Libby into tracking spreadsheet. I did this for most of the morning, and in the afternoon I conducted exit interview for the GLB study.

7:30am- Arrived at the office

### December 15, 2016

After arriving at the office today I gathered more sources for my graduate thesis. In the morning I mostly spent my time coming up with a rough outline for the format for the EDP tracking spreadsheet. Later in the morning I conducted an exit interview for the GLB TBI study.

7:30am- 2:45pm

## December 16, 2016

After arriving at the office today, Libby asked me to fix the tracking spreadsheets for multiple studies. I fixed these spreadsheets in the morning. After lunch, I continued to work on the enhanced discharge planning spreadsheet.

- 8:00am- Arrived at the office
- 8:00am- 9:30pm- Fixed the spreadsheets for multiple studies.
- 10:00am 11:15am- Worked on gathering sources for graduate thesis
- 11:15am- 11:45am- Lunch
- 11:45am- 3:30pm- Worked on the EDP spreadsheets

### December 19, 2016

I did not come to work today as I went to see my cardiologist in Houston

### December 20, 2016

After arriving at the office today I went with Libby to meet with the residents. For the rest of the morning I worked the gathering sources for my graduate thesis. After lunch, I continued my work on the EDP spreadsheets. Later in the afternoon Cindy came by with the remaining charts that I needed to complete my project. spreadsheet

7:30am- Arrived at the office

9:00am- 9:45am Went to the meeting with the residents.

9:45am- 12:00pm- Background work on my thesis, switched out some flyers in the display case12:00pm- 4:00pm- Worked on the EDP spreadsheet

Ate me lunch, did some background work for my thesis lalalalalalalalalalala

• Worked on Danielle's thing, left at 4:00pm

#### December 21, 2016

After arriving at the office today I worked on, and finished the EDP spreadsheet After lunch I added the missing data to my spreadsheet, and sent it off to Dr. Bennett. Later in the afternoon I delivered a survey for Maria, and then saw the band play Christmas music

7:25am- Arrived at the office,

8:00am- 12:00pm- Worked and finished the EDP spreadsheet

12:00pm- 12:30pm- Ate lunch

12:30pm- 4:00pm- Added the remaing/missing data to my tracking spreadsheet, delivered a survey for Maria, sent the email with my remaining data to Dr. Bennett, saw the band play Christmas music.

#### December 22, 2016

After arriving at the office today I emailed parking services to tell them I needed an extension on my parking pass. I worked on my thesis, and was told my Dr. Driver there was no need for me to come in on the 23<sup>rd</sup> and that I should come back January 3<sup>rd</sup>. After lunch I cleaned up the EDP spreadsheet some more, checked the dates on conference list for the office, and I entered FIM scored and other measures into charts for Anne.

7:25am- Arrived at the office

8:30am-11:15am- Emailed parking services about me needing an extension on my parking pass, worked on my thesis, Dr. Driver said there was no need for me to come in on Friday.

11:15am- 11:45am- Ate lunch

11:45am- 12:40pm- Cleaned up the EDP spreadsheet some more, checked the dates on the conferences and meetings list to see if there had been any updates for the office.

12:40pm- 2:30pm- Asked Anne if there was anything I could do, she said she needed help locating FIM scores and entering them into charts.

# January 3<sup>rd</sup>

After arriving at the office today I briefly read some former CRM student's theses'. Later in the morning I attended the residents meeting with Libby and worked on my thesis organization. After lunch I tried to call people for the follow up phone calls on the health literacy study. Later in the afternoon I was able to conduct several of the two week follow up surveys.

7:25am- Arrived at the office

9:00am-10:00am- Attended the residents meeting

10:00am-11:15am- Worked on thesis organization

11:15-11:40am- Lunch

11:40am-12:30pm- Tried to call people for the follow ups on the health literacy study

12:30-2:00pm- Tried again with the phone calls, spent more time on trying to develop my thesis 2:00pm- 3:40pm- Conducted the follow up surveys with two people, left a voicemail for the third person, came up with my to do list and goals for tomorrow.

## January 4<sup>th</sup>

After arriving at the office I gathered some more sources for my thesis. I continued to work on learning what it takes to write a thesis. Later in the morning I made the six month follow up spreadsheet for the EKSO study for Libby and ate lunch. In the afternoon I again tried to deliver follow up surveys for the Health Literacy study and learned the snap survey soft ware with Libby.

7:20am- Arrived at the office

7:20am- 9:00am- Gathered sources for thesis

9:00am-11:15am- Continued to work on learning what it takes to learn a thesis, made the six month follow up spreadsheet for the EKSO study for Libby, learned the snap survey software with Libby

11:15am- 11:45am- Ate lunch

11:45am- 3:40pm- Continually tried to reach individuals over the phone so I could deliver their two week follow up survey for the Health Literacy study, watched videos on how to make a compound grid on the snap survey software, finished learning/ making a survey in the software with Libby.

# January 5<sup>th</sup>

After arriving at the office today I tinkered with idea of what a follow up survery geared specifically towards caregivers would look like for the HL study. Later in the morning I again started to read pervious internship practicum reports from former CRM students. After lunch I continually tried to reach subjects to deliver follow up surveys, and I tested Maria's survey for her .

7:25am- Arrived at the office

7:25am- 9:00am- Tinkered with the idea of what a follow up survey would like for just the care giver on the two week follow up for the EDP study.

9:00am – 11:30am- Started to read previous internship practicum reports from former CRM students.

11:30am- 12:00pm- Ate Lunch

12:00pm – 3:55pm- Continually called and tried to reach subjects to deliver follow up survey for the EDP study, after delivering the surveys that I could I took Maria's survey from survey Gizmo before leaving for the day.

# January 6<sup>th</sup>

Today I mostly worked on my thesis. Later in the morning I sat down with Dr. Bennett the biostatistician to talk about my data set. After lunch due to snow/ice I was allowed to go home early due to the hazardous road conditions.

Arrived at the office at 7:10am

9:00am -10:00am- Worked on framework for thesis

10:00am -12:00pm- Continued to work on framework for thesis, went over some questions that

Dr. Bennett had with my data set

12:00pm-12:30pm- Ate lunch

12:30pm-2:00pm- Continue to work on thesis and again tinkered with what a caregiver survey would look like for the HL study, went home earlier because of the snow/ice.

### **January 9**

After arriving at the office today I went to Maria to parking services to get my new parking pass. After I got back to the office I helped Dr. Driver unpack the parts for the sleep study monitor stand. Later in the morning, and for the entire afternoon I assembled the sleep monitor stand.

7:20am- Arrived at the office
9:00am- 10:00am- went with Maria to parking services
10:00am- 12:00pm- Took parts for a mobile monitor stand out of boxes for Dr. Driver, began to assemble this stand
12:30pm- 3:00pm- assembled the stand for Dr. Driver
4:00pm-Left the office

## **January 10**

In the morning I pretty much worked on the various parts of my thesis. After lunch I worked on my thesis and went over to the outpatient clinic to pick up the old walk with a doc posters.

7:30am- Arrived at the office

9:00am-11:00am- Wrote various parts of my thesis

86

#### 11:00am-11:30am- Ate lunch

11:30am- 3:20pm- Wrote various parts of thesis, went over to outpatient therapy clinic to pick up the old walk with a doc posters

## January 11<sup>th</sup>

After arriving at the office today I drove to Dr. Driver office to deliver his laptop to him. After returning to the office I continued to work on my office and sorted some of my financial aid issues. After lunch I worked on the different sections of my thesis and received my summarized data from Dr. Bennett. Once I received this my data I read Dr. Bennett's tables and comments, then I looked up basic statistical information so I would be able to properly put this data into my thesis.

#### 7:40am- Arrived at the office

7:40am- 12:00pm- Worked on thesis, drove to Dr. Driver's house to deliver his laptop, returned to the office, continued work on thesis, sorted some financial aid issues for next years entry into medical school.

12:00pm-12:20pm- Ate lunch

12:20pm- 3:00pm- Worked on parts of thesis, received data from Dr. Bennett. Looked at project data and read up on basic statistics so I could properly interpret this data.

87

## January 12<sup>th</sup>

After arriving at the office I went over my project data and found some issues with my DRS scores and emailed Dr. Bennett about this issue. I asked Anne if she needed any help with the HL CRF. I began to work on the caregiver CRF and continued my work until after lunch. Later in the afternoon I unpacked boxes with Dr. Driver, and made labels for the walk with a doc posters.

#### 7:25am- Arrived at the office

8:00am- 11:25am- Went over project data, found some issues with it and emailed Dr. Bennett. Asked Anne if they needed help with the HL study CRF and began working on the CRF 11:25am- 11:40am- Ate Lunch

11:40am- 3:30pm- Made the CRF for caregivers for the HL study, worked on parts of my thesis. Unpacked equipment from boxes with Dr. Driver began to implement changes to the Health Belief Model for caregivers, but Anne said we should hold off on that until after we meet with Dr. Bennett next week. Made the labels for the new poster boards for walk with a doc

## January 13<sup>th</sup>

In the morning I made the EKSO spreadsheet for Libby, printed the posters for walk with a doc and delivered them. I also switched out a study flyer in the display case for Maria. After lunch I put the new time labels on the posters in Laundry, ate cake with the office for Monica's birthday, and worked on finding the best way to put statistical language into my thesis. 7:30am- Arrived at the office

7:30am- 11:30am- Made the follow up EKSO spreadsheet for Libby, printed the extra posters for walk with a doc and delivered them, switched out a study flyer in the display case for Maria.
11:30am- 12:20pm- Got lunch and went over to the Laundry building to put the new time stickers on the poster boards.

12:20pm- 1:30pm- Ate cake, worked on thesis and finding examples of statistical language for my thesis.

## January 16<sup>th</sup>

### 7:30am- 3:30pm

In the morning today I mostly conducted a review of my research proposal in order to determine if everything was adequate for my thesis. I looked at the statistical language in my data. I continued this approach after lunch.

# January 17<sup>th</sup>

After arriving at the office today I gave the data for my thesis a look before meeting Dr. Bennett. Later in the morning I attended a meeting to look over my project data, and there were several changes/discrepancies noted. After this meeting I began to fix the issues with my data, and I looked for missing GCS and DRS scoring measures for my sample.

### 7:30am- Arrived at the office

7:30am- 11:45am- I looked at the data for my thesis. I also went to a meeting considering my data where we discussed issues/things I needed to add.

11:45am- 12:15pm- Lunch

12:15pm 4:00pm- I looked for missing GCS, DRS, and tried to figure what the issues were with my actigraphy data.

## January 18<sup>th</sup>

After arriving at the office today I continued to make corrections to my database for Dr. Bennett. I also found some of the missing GCS and DRS scoring measures and I added the scores that I could find. Late in the afternoon I went with Danielle to Southwestern to pick up the scale for the GLB study.

7:30am- Arrived at the office

7:30am- 11:30am- Worked on correcting my database, found some of the missing GCS and DRS scores

11:30am- 12:00pm- Lunch

12:00pm- 2:00pm- Added the missing DRS and GCS scores to my database

2:00pm- 3:30pm- Went with Danielle to pick up the scale for the GLB study from Southwestern.

# January 19<sup>th</sup>

After arriving at the office today I tried again to find the missing GCS scores. I realized that I would not be able to find these measures and I emailed Dr. Dubiel, and she said that these scores were missing and I would not be able to find them. In the afternoon I completed fixing my Access database and making the additions to my Excel spreadsheet. I also began to enter data into the EKSO survey for Libby.

7:35am- Arrived at the office

7:35am- 11:30am- Tried to find the rest of the missing GCS scores. Emailed Dr. Dubiel about finding the remaining scores. Sat in on a short meeting.

11:30am- 11:50am- Lunch

11:50am- 3:30pm- I fixed the rest of my Access database and Excel spreadsheet. I also began to enter the EKSO survey data into snap survey for Libby.

## January 20<sup>th</sup>

After arriving at the office today I added the EKSO survey to the snap survey database. After lunch I finished adding the remaining available surveys to the snap survey database and I uploaded my updated transcripts for AACOMAS and TMDSAS.

7:35am- Arrived at the office

7:35am- 11:20am- I added EKSO surveys to the snap survey database

11:20am- 11:45am- Ate Lunch

11:45am- 3:30pm- I finished adding the remaining available EKSO surveys to the snap survey database. I uploaded my updated transcripts for AACOMAS and TMDSAS.

## January 23<sup>rd</sup>

After arriving at the office today I mostly worked on the results section of my thesis. After lunch I continued to work on my thesis and I attended a meeting where Libby, Dr. Dubiel, and Dr. Salisbury discussed what changes I could make to the online access to health survey.

7:35am- Arrived at the office

7:35am- 11:10am- Worked on my thesis

11:10am-11:35am- Ate Lunch

11:35am- 3:20pm- Worked on my thesis. Attended the meeting with Libby, Dr. Dubiel, and Dr. Salisbury where there discussed on what changes I could make to online survey.

# January 24<sup>th</sup>

After arriving at the office today I worked on changing, editing, and testing the new access to health survey for Libby. After lunch I continued to test this survey to make sure that all of the logic made sense and that the survey was adequate.

7:30am- Arrived at the office

7:30am- 12:00pm- Worked on changing, editing, and completely testing the new survey for Libby

12:00pm- 12:25pm- Ate Lunch

12:25pm- 3:30pm- Tested the survey again for Libby, worked on completing my first draft of my thesis.

## January 25<sup>th</sup>

After arriving at the office today I finished fine tuning the first draft of my thesis and I showed this draft to Dr. Driver. We realized that something we could add to eliminate the presence of outliers is adding the category of Wake time. Later in the morning I began to add this category to my Excel spreadsheet. I completed these additions in the afternoon, emailed the changes to Dr. Bennett, and I mailed follow up cards for the TBIMS.

8:00am- Arrived at the office

8:00am – 11:15am- Finished fine tuning the first draft of my thesis. I showed this draft to Dr. Driver and helped me realize I misinterpreted some of the data and gave me an idea of what to add. Later in the morning I began to make these additions

11:15am- 11:40am- Ate Lunch

11:40am- 3:25pm- Completed the Wake Time additions to my spreadsheet and emailed these additions to Dr. Bennett. I also mailed some of the follow cards for Cindy.

## January 26<sup>th</sup>

After arriving at the office I talked with Dr. Driver and tried to download the new actiwatch software. I looked at my thesis and Dr. Driver's stats book and began to incorporate statistical language for my results section. After lunch I continued this work, and completed my trainings for UNTHSC that were due on the 31<sup>st</sup>.

7:30am- Arrived at the office

7:30am- 11:50am- Talked with Dr. Driver and tried to download the new actiwatch software. Looked at my thesis and Dr. Driver's stats book and began to language together for my results section

11:50am- 12:20pm- Ate Lunch

12:20pm- 3:15pm- Continued to work on my thesis, completed the HIPAA training , active shooter preparedness training, and signs of child abuse trakining for UNTHSC due January 31<sup>st</sup>

## January 27<sup>th</sup>

After arriving at the office today I continued to read the stats book given to me by Dr. Driver. I worked on my thesis and mailed more follow up cards for the TBIMS. In the afternoon I began to familiarize myself with charts for the TWILIGHT study so I could quality check some of the results on the NDSC website.

7:30am- Arrived at the office

7:30am - 11:25am- Continued to read the stats book from Dr. Driver. Worked on my thesis.

Made and mailed the follow up birthday cards for Cindy.

11:25am- 11:55am- Ate Lunch

11:55am- 2:40pm- Received email from Libby about potentially cleaning up actigraphy data on the NDSC website. Began to familiarize myself with the charts so I could be able to sit down and knock it out on Monday.

# January 30<sup>th</sup>

7:30am- Arrived at the office

7:30am- 11:00am- Conducted Lit review, put together rough thesis draft for Dr. Gwirtz 11:00am-11:30am- Ate Lunch

11:30am-3:35pm- Emailed Dr. Gwirtz about potentially scheduling a defense date and the process for submitting the thesis. Scheduled a meeting for next Monday with Dr. Gwirtz

After arriving at the office today I conducted a lit review to see if there was anything that needed to be added to my thesis. I put together a rough draft for Dr. Gwirtz and scheduled a meeting with her so I we could talk about how my project is going/how my internship is going.

# January 31<sup>st</sup>

7:15am- Arrived at the office

7:15am- 11:20am- Conducted a lit search for Libby/Dr. Dubiel, I also scheduled my defense date.

11:20am-11:50am- Lunch

11:50am-3:10pm- Completed the Lit search for Libby put together a template of questions I wanted to ask Dr. Gwirtz

After coming into the office today I began to conduct a lit search for Libby/Dr. Dubiel. I also schedule my defense date for March 20<sup>th</sup>. In the afternoon I completed the lit search for Libby, and I also put together a list of questions that I had for Dr. Gwirtz next week.

# February 1<sup>st</sup>

7:40am- Arrived at the office

7:40am- 11:15am- Waited to look at match day results. Did some stuff for Maria

11:15am- 11:40am- Ate Lunch

11:40am-3:20pm- Libby asked me to find the PDFs of the sources I found for my lit search.

After arriving at the office I waited to look at the match day results for Texas medical schools. I did some stuff for Maria later in the morning. In the after Libby asked me to find the PDFs of the sources I found in my lit search. This proved to be a bit difficult but I was able to find some of the original PDFs.

## February 2<sup>nd</sup>

7:20am - Arrived at the office

7:20am- 11:10am- Completed finding the sources for Libby and I compiled the PDFs 11:10am- 11:35am- Ate Lunch

11:35am-3:00pm- I sent the PDFs to Libby, tried to get into contact with Air Force recruiters for the HPSP opportunity.

After arriving at the office today I continued to find the sources for Libby, this took more time that I originally thought it would. After lunc I sent the PDFs off to Libby, and I attempted to get into get into contact with Air Force recruiters to see if I qualified for the HPSP opportunity.

## February 3<sup>rd</sup>

7:30am- Arrived at the office

7:30am- 8:10am- Went and got donuts for the office

8:10am- 9:50am- Brushed up thesis, reviewed and incorporated the new data into the paper.

9:50am- 11:20am- Reviewed previous paper from former CRM students

11:20am-1145:am- Ate lunch

11:45am- 3:10pm- Mostly did various tasks for Maria, mostly centered around survey data entry and putting together some spreadsheets.

After arriving at the office I went and got donuts for the office. Later in this morning I brushed up my thesis and incorporated the new analysis from Dr. Bennett into my paper. After lunch I did various tasks for Maria. This mostly consisted of putting together spreadsheets for the WOWii study; I also built some of these spreadsheets.

## February 6<sup>th</sup>

11:30am- Arrived at the office late due to my meeting with Dr. Gwirtz
11:30am – 3:00pm- Mostly worked on things for Maria and downloaded some things for the WOWii user accounts.

I arrived at the office late today because I had a morning meeting with Dr. Gwirtz to discusses how things were going. In the afternoon I did some things regarding the WOWii stuff for Maria.

# February 7<sup>th</sup>

7:30am- Arrived at the office

7:30am- 11:15am- Downloaded some of the data for Maria, updated the conferences spreadsheet for Libby

11:15am- 11:40am- Ate Lunch

11:40am- 12:45pm- Downloaded the things for Maria

1:00pm- 2:15pm- Walk with a doc

2:15pm- 3:30pm- Downloaded more stuff for Maria.

After arriving at the office today I continued to work on clearing space on my laptop so I could download the user data for Maria. I also updated the conferences spreadsheet for Libby. After Lunch I mostly helped set up walk with a doc, and I also downloaded more data for Maria.

### February 8<sup>th</sup>

7:30am- Arrived at the office

7:30am- 9:30am- Completed downloading the user data for the WOWii study for Maria.

9:30am- 11:15am- Worked on thesis

11:15am- 11:40am- Ate Lunch

11:40am-2:00pm- Worked on thesis, tried to schedule a room for my defense, gave my background a once over before sending to Dr. Gwirtz.

After arriving at the office today I completed downloading things for the WOWii study. After I completed these download I worked on rounding out my background. After lunch I worked on my thesis and then sent my background off to Dr. Gwirtz, I then began to try and schedule a room for my defense.

#### February 9<sup>th</sup>

7:30am- Arrived at the office

After arriving at the office today I mostly worked on my thesis. I worked on adding some sources to my background.

## February 10<sup>th</sup>

7:30am- Arrived at the office

7:30am - 9:15am- Worked on thesis

9:15am-10:15am- Got stamps for follow up cards

10:15am- 11:00am- Got together and sent the follow up cards for the TBIMS

11:00am – 1:00pm- Worked on thesis did miscellaneous tasks, there was no more work for me so I went home to Houston.

After arriving at the office today I began to again work on my thesis. Later in the morning I got stamps for follow up cards, and then I put together the follow cards for the TBIMS. Later in the morning/early afternoon I did miscellaneous tasks and continued to try and get a room booked for my defense and there was little/ no work for me. Because of this I left early to return to Houston, TX.

## February 13<sup>th</sup>

7:30am- Arrived at the office

7:30am- 11:30am- Worked on inputting data for the GLB T6 time period. Got a room schedule for my defense.

11:30am-11:50am- Ate lunch

11:50am- 3:45pm- Gathered forms to declare intent to defend, worked on data entry, attended a meeting was here till 3:45pm

After arriving at the office today I began to work on data entry for the T6 time period for Dr. Grobe. I was also concurrently trying to confirm that a room was scheduled for my defense. After lunch I continued with the data entry for the GLB study, and attended a meeting at 3:00pm for the EKSO study.

## February 14<sup>th</sup>

7:30am- Arrived at the office

7:30am - 9:00am - Dr. Grobe's things

9:00am- 11:30am- Maria had me do things for the WOWii study

11:30am-11:55am- Ate Lunch

11:55am- 3:15pm- Did more stuff for Maria, began trying to a get ahold of committee so I could come by and fill out my intent to defend form.

After arriving at the office I worked on Dr. Grobe's data in the morning. Later in the morning I worked on several spreadsheets for Maria for the WOWii study. After lunch I checked whether participants in the WOWii study had returned their equipment, and I tried to get ahold of my committee membes os I could come by and file my intent to defend form.

## February 15<sup>th</sup>

7:20am- Arrived at the office

7:20am – 11:30am- Dr. Grobe's data entry, Maria's stuff

11:30am- 12:00pm- Ate Lunch

12:00pm- 3:10pm- Got ahold of most of committee, finished most of Maria's stuff

After arriving a the office today I continued with Dr. Grobe's data entry. I also tried to familiarize myself more with medilinks so I could find the scoring measures required to fill out the EKSO surveys. After Lunch I was able to a get ahold of most of my committee members to schedule a time for me to come by and get my form signed.

### February 16<sup>th</sup>

7:30am- Arrived at the office

7:30am- 11:00am- Finished the data entry for Dr. Grobe

11:00am- 11:30am- Ate Lunch

11:30am- 3:15pm- Confirmed with committee members that I was coming by to get the forms signed

After arriving at the office I finished the data entry for the GLB T6 time period. After lunch I again tried to find things for the EKSO surveys, and again confirmed with my committee members that I was coming by to get my form signed.

## February 17<sup>th</sup>

12:00pm- Arrived at the office

12:00pm- 3:30pm- Worked on finding the data necessary to fill out the EKSO surveys

During the morning today I went to UNTHSC to turn in my intent to defend form. After arriving at the office I tried to find the necessary data to fill out the EKSO surveys.

## February 20<sup>th</sup>

7:30am- Arrived at the office

7:30am- 10:25am- I realized that I did not have access to my email. Called IT and did the work I could do without Baylor email10:25am- 11:20am- Worked on trying to gather MMT and SCIM scores.

11:20am- 11:45am- Ate Lunch

11:45am- 3:45pm- Again worked on getting my access back, worked on getting a decent draft of my results section together

After arriving at the office today I realized that I no longer had my Baylor access. I called IT to get the issue sorted, then I waited and called again. Later in the morning I worked on the select computer to try and gather the MMT SCIM scores for the EKSO surveys. After lunch I tried again to get my access back and gather the scoring measures. Later in the afternoon I worked on my results section for my thesis.

## February 21<sup>st</sup>

7:20am- Arrived at the office

7:20am- 11:20am- Proofread some of my results, ate some cake, asked about my access again 11:20am- 11:50am- Ate lunch

11:50am- 1:00pm- Created SPSS database for Maria's WOWii project1:00pm- 1:35pm- Meeting1:35pm- 3:00pm- Proofread more of my thesis

After arriving at the office today, I proofread some of my thesis and are some king cake. After lunch I created a SPSS database for Maria's WOWii project. After the meeting at 1:00, since I did not have my access I again just proofread some of my thesis.

### February 22<sup>nd</sup>

7:35am- Arrived at the office

7:35am- 10:30am- Added new elements to an Excel spreadsheet for my thesis.

10:30am - 11:20am - Added the new data to my thesis

11:20am-11:50am-Lunch

11:50am – 3:10pm- Final edits to results section and sent thesis off to Dr. Gwirtz for editing/ input.

After arriving at the office today I added new element to an Excel spreadsheet that accounted for the amount of time each patient spent in light activity during their stay. I incorporated this new data into my thesis, and after lunch I applied edits to my thesis.

#### February 23<sup>rd</sup>

7:20am- Arrived at the office

7:20 am- 11:30am- Cleaned watches for Maria and accounted for the missing pieces of equipment for the WOWii study

11:30am- 12:00pm- Ate lunch

12:00pm – 3:00pm- Finished cleaning the watches, filled out some survey stuff for UNTHSC, and got information for the Army HPSP.

After arriving at the office today I sat down and checked emails, and looked at new sources to incorporate into my background. Later in the morning I began to ID some of the watches sent in for the WOWii study. After I identified the watches, I began to clean all of the watches/equipment sent in for the WOWii study. I finshed cleaning the equipment after lunch, I filled out some survey data for UNTHSC, and I received a phone call/ information from an Army recruiter for the HPSP.

## February 24<sup>th</sup>

7:20am- Arrived at the office.

7:20am- 9:30am- Created a survey for Dr. Grobe, talked with PT about getting the remaining data for the EKSO study

9:30am- 10:20am Sent the survey to Dr. Grobe, walked over to the outpatient clinic, went over to the outpatient clinic to look for flyers

10:20am- 11:30am- Sent the test survey link to Dr. Grobe, ate lunch, worked on weekly journal 11:30am- 12:00pm- Ate lunch

12:00pm- 2:15pm- Worked on entering new patients for Dr. Grobe, and finished up weekly journal.

After arriving at the office today I started the day by creating a survey for Dr. Grobe. Later in the morning I sent the survey and the test link for the survey to Dr. Grobe. After eating lunch I focused on editing and preparing my weekly journal. To finish the day I entered in some patients for the GLB AIM study for Dr. Grobe.

### February 27<sup>th</sup>

7:30am- Arrived at the office
7:30am - 11:00am- Worked on miscellaneous tasks
11:00am- 11:30am- Ate Lunch
11:30am- 1:10pm- Worked on the T6 GLB databases for Dr. Grobe
1:10pm - 3:30pm- Received some edits from Dr. Gwirtz and I applied those edits to my thesis.

After arriving at he office today I completed some office tasks in the morning. In the afternoon I worked on the T6 databases for Dr. Grobe and I received applied edits to my thesis.

#### February 28th

#### 7:30am- Arrived

7:30am – 11:00am- Worked on miscellaneous tasks, applied more edits to my thesis. 11:00am – 11:35am- Ate Lunch

11:35am – 3:20pm- Put together a working version of my thesis to send to Dr. Driver tomorrow. Sent off my thesis to Dr. Millar in case he wanted to review my material.

After arriving at the office I worked on miscellaneous tasks, applied more edits to my thesis. In the afternoon I put together a working version of my thesis, and sent a version of my thesis to Dr. Millar

#### March 1st

7:30am- Arrived

7:30am – 11:15am- Added more data to the T6 databases, sent a working version of my thesis to Dr. Driver

11:15am – 11:40am- Ate Lunch

11:40am – 3:15pm- Talked with Dr. Driver about the current state of my thesis, and discussed the different elements I need to add/subtract from my paper. I applied these edits later in the afternoon.

After arriving at the office I added more data to the T6 databases and sent a working version of my thesis to Dr. Driver. After lunch I talked with Dr. Driver about the current state of my thesis and about what changes needed to be made.

7:30am- Arrived

7:30am- 11:00am- Applied edits to my thesis, began to piece together my defense presentation.

11:00am – 11:30am- Ate Lunch

11:30am – 3:45pm- I put together a brainstorming frequency spreadsheet for Libby, and entered the Kitchen survey data for Amber.

After arriving at the office I applied edits to my thesis. After lunch I put together a brainstorming frequency spreadsheet for Libby and entered kitchen survey data for Amber.

### March 3rd

7:20am- Arrived

7:20am- 9:30am- I worked on running descriptive stats for Dr. Grobe on the kitchen database.

9:30am – 12:30pm- I worked on my thesis, did tasks for Maria, and I was given a birthday cake/card, and I put together a WOWii spreadsheet for Maria.

12:30pm- 2:15pm- Ate more cake, it was delicious, worked on miscellaneous tasks for Maria, and applied final edits to my thesis.

After arriving at the office I worked on running descriptive statistics for Dr. Grobe on the kitchen database. I worked on my thesis and did tasks for Maria. I was given a birthday cake/card and I put together a WOWii spreadsheet for Maria.

### March 6<sup>th</sup>

7:25am- Arrived at the office
7:25am – 10:00am- Cleaned up portions of my thesis and sent off the final draft to my committee members
10:00am – 11:30am- Looked at criteria for the defense presentation received a phone call from my AF recruiter with instructions on how to schedule my physical exam
11:30am – 12:00pm – Ate Lunch
12:00pm- 3:10pm- Worked on and sent off more T6 data to Dr. Grobe

After arriving at the office today I cleaned up portions of my thesis and sent off the final draft, I looked at the criteria for the defense presentation and received a phone call from my recruiter. In the afternoon I entered and sent off more T6 data to Dr. Grobe.

#### March 7<sup>th</sup>

8:00am – Arrived at the office

8:00am- 11:20am Arrived at the office late because I got rear ended, put together an email list for WWAD for Libby.

11:20am – 11:50am- Ate Lunch

11:50am- 12:45pm- Applied edits to my thesis and got together information to make a claim to the insurance company

12:45pm- 2:00pm- Helped set, went to and attended WWAD

2:00pm- 3:30pm- Applied more edits to my thesis for Dr. Gwirtz

I arrived late today because I got rear ended. I put together an email list for Libby, applied edits to my thesis, and attended WWAD.

#### March 8<sup>th</sup>

7:25am- Arrived at the office
7:25am- 11:00am- Sent off the final version of my thesis
11:00am- 11:30am- Ate Lunch
11:30am - 3:20pm- Got in touch with the insurance company and went through the process of filing a claim

This morning I sent off the final version of my thesis and had to get in touch wit h insurance to file a claim

March 9<sup>th</sup>

7:20 am – Arrived at the office
7:20am – 11:10am- Applied changes to the T6 databases at Danielle's suggestion
11:10am – 11:45am – Ate Lunch
11:45am – 3:10pm- Worked on my defense presentation and scheduled my appointments for my physical and eye exam

After arriving at the office today I applied changes to the T6 databases at Danielle's suggestion. After lunch I worked on my defense presentation and scheduled my appointments for my physical and eye exam.

#### March 10<sup>th</sup>

7:20am – Arrived at the office

7:20am – 11:15am- Dr. Grobe asked me to put together a measures spreadsheet. I went to move the scale and run errands with Maria

11:15am- 2:25pm- Researched the different measures for Dr. Grobe and put together those measures in a Word document for her.

After arriving at the office today Dr. Grobe asked me to put together a measures list for her grant. I ran errands with Maria. In the afternoon I researched the different measures for Dr. Grobe and I put those measures together in a Word document.

### March 13<sup>th</sup>

I had appointments and did not go to the office today.

#### March 14<sup>th</sup>

9:30am- Arrived at the office 9:30am – 10:30am- Arranged and sent the follow up cards 10:30am – 11:20am- Entered data into the GLB database 11:20am- 11:40am- Ate Lunch 11:40am- 2:30pm- De-identified some patient lab reports 2:30pm- 3:00pm- Worked on defense presentation

After arriving at the office today arranged and sent the follow up cards for the second half of March. After entering more T6 data into the GLB database I went to lunch. Early in the afternoon I de-identified some patient lab reports, and I then worked on applying some edits to my defense presentation.

### March 15<sup>th</sup>

8:20am- Arrived at the office

8:20am – 11:00am – Arranged my daily journal, sent Dr. Grobe a document with letterhead. Edited my defense presentation

11:00am- 11:35am- Ate lunch

11:35am – 2:00pm- Asked Libby for the EKSO data so I could double check all my data entries, put together another list of definition for Dr. Grobe. Anne said I could leave early

After arriving at the office today I arranged my daily journal and sent Dr. Grobe a document with letterhead and edited my defense presentation. After lunch I asked Libby to the EKSO data so I could review it, I then went home early.

#### March 16<sup>th</sup>

7:30am- Arrived at the office 7:30 – 11:30am- Proofreading EKSO data 11:30am- 12:50pm- Goodbye celebration 12:50pmAfter arriving at the office today I began to proofread the EKSO data. The entire office went to lunch to celebrate my last couple of days here. After the lunch celebrations I went back to proof more EKSO data.

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