Relation of Knowledge and Practice of Proper Body Mechanics among Nurses on the Prevalence of Low Back Pain

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Abstract: Low back pain is a common problem among the nursing profession. The high prevalence of back pain injuries for nurses is supported by many studies. This study aimed to evaluate the relationship of the knowledge and practice of proper body mechanics on the prevalence of low back pain among nurses. Conclusion revealed that there is significant influence between the knowledge and practice of body mechanics on the low back pain among nurses. The study should be replicated on large samples and different hospital settings in order to generalize the results.

Research Design: A descriptive quantitative research

Research Respondents: A Non-random purposive sample of 50 staff nurses

Results: The results revealed that about two third of them 65% had low back pain. There was a highly statistically significant difference regarding total knowledge and practice of proper body mechanics on the prevalence of low back pain among nurses.

Conclusion: It is concluded that knowledge and practice of proper body mechanics has a significant influence on low back pain prevalence among nurses.

Keywords: Low back pain, nurses, body mechanics

INTRODUCTION

Lumbosacral pain, or most commonly referred to as low back pain, is the term used to describe the tension or discomfort in the area above the inferior gluteal folds and below the costal margin[1]. It is an extremely common phenomenon, in fact it is a leading cause of global disability, with a global point prevalence of 9.4% (95% CI = 9.0 to 9.8%) [2]. Among 291 conditions, LBP is ranked first in the leading cause of disability and sixth in terms of overall burden in the Global Burden of Disease 2010 study[3]. It is a work-related musculoskeletal problem that proves to not only be popular but is also rather costly[4]. It's substantial impact on the economy is supported by the large number of work days lost by a small percentage of patients who develop chronic LBP [5]. Although this condition is not necessarily life-threatening, it affects a great deal of population as much as it affects lifestyle, social engagement and economic productivity in its progress among individuals.

Low back pain manifests in everyone regardless of age, gender or race. Most people suffer from an occasional incapacitating pain that may develop into a chronic low back pain. Many people have their first LBP in their youth, with the condition frequently recurring in adulthood, developing into a chronic condition[6]. According to a new systematic review of the global prevalence of low back pain, LBP is a major complaint around the world but had a higher prevalence for women ages 40-80 years old[7].

LBP is said to predominantly affect the working population and maintains to be a factor affecting global economic, societal, and public health sectors[8]. In the 21st century, the economy has advanced towards services and information technologies, hence making effective and efficient staff as an institution's most valuable asset. In a modern hospital environment,

providing patient care traditionally requires more focus on the safety needs of the patients than of their nurses. The lack of a balanced interplay between factors related to the patient, nurse and its physical environment compromises both of their quantity and quality of life. Over 59 million healthcare providers are exposed to an array of work-related hazards, including biological, physical, ergonomic, environmental, and psychosocial[9].

Nursing is among the occupations with a high risk for back injuries[10]. Nurses work for protection, development, and improvement of health for many patients and spend more time with the patients than most health professionals to provide direct care[11]. The great amount of stress induced from physical work such as patient handling and transfers along with psychological stress are responsible for the rise of the prevalence of low back pain among nurses[12]. The risk factors of LBP among nurses is usually multifactorial and it can either be individual or occupational risk factors[13].

 A variety of factors such as manual handling, lifting weights beyond the individual's capacity, patient-handling task, regular routine care such as bed making, bathing, transferring, turning, holding, bending–twisting, lifting, shifting, and kneeling all contribute to the increased risk for LBP among nurses. All these maneuvers have consistently increased spinal flexion and disc compression which promotes degeneration of the spine, which then increases muscle load resulting to low back pain[14]. Patient handling tasks include many of the workplace factors accompanying with risk of injury. Since patients can be unpredictable (may resist movement), have an undefined shape, or being dynamic loads, patient handling tasks are considered a hastening factor in the development of serious low back problems[15].

A lot of patients are unable to cooperate during repositioning, elevating the risks for both the patient and the hospital staff during transfer activities. In addition to this, the collective weight lifted by a nurse in one typical 8-hour shift is equivalent to 1.8 tons[16]. Add this to substantial retention issues and turnover within the workforce and elevated costs of care delivery because of lost wages, time off, and injury-related medical costs. Its burden is heavy on the nurses' quality of work life, productivity, and their absenteeism, making these common conditions the single largest contributor to musculoskeletal disability worldwide[17].

Of course, there are variables that determine the performance of these activities like understaffed hospitals, improper use of body mechanics, and lack of training and education. It is likely for countries with limited human resources and less equipped with latest technologies to have great ratio of occupational health problems than those from developed countries. Therefore, in the absence of proper facilities in understaffed clinics, education on the proper body mechanics and consistent practice of ergonomic techniques are of core importance on establishing a safer environment for both patients and their nurses.

This is study aims to evaluate the knowledge and application of proper body mechanics among nurses and its relation to the prevalence of low back pain. Lower back pain directly affects nurses' productivity at work and consequently reduces quality of health care the clients receive, therefore the need to assess these factors in the nurses' work.

Materials and Methods

Research Duration

The study was conducted on December 13, 2019 and was distributed to a population of 50 nurses. The implementation started on February 2020 and ended on March 2020, with the interpretation of data conducted after this time period.

Research Design

This study aimed to evaluate the relation between the knowledge and practice of proper body mechanics among nurses on the prevalence of low back pain. For this reason, the researcher utilized a descriptive quantitative design analysis based on the use of survey questions and responses gathered in order to properly utilize the subjective answers to questions answered by the patient.

Research Respondents

The population is composed of currently employed nurses. The staff nurses covered in this study are from different varying departments in the institution and are randomly selected to answer the questionnaire. The expected number of respondents were 50, however, with those who chose not to participate and those with spinal conditions, the response rate was only 34 or 68% of the total number of subjects.

Inclusion Criteria

The sample included 50 employed nurses (from different units), who were working in the aforementioned setting and with the following inclusion criteria: any gender, 20-60 years of age, educational levels and years of experience and who may or may not have suffered episodes of back pain and are willing to participate in the study, and who were not diagnosed with non-orthopedic diseases and metastatic disorders. Selected respondents who are able to understand instructions in both English and in the local dialect and was able to read and write are prioritized. This study was given to respondents that consents to aid to the study through giving honest and complete response to the questionnaire provided.

Exclusion Criteria

The study did not cover respondents under the age of 20 and above 60 years old. This study excludes nurses who are vocational activities and/or freelancing without direct employment in the mentioned institution. The study also excluded nurses with pre-existing clinical diagnosis on spine injuries, degeneration or deformation as well as chronic physical systemic conditions such as cancer, tuberculosis, HIV, etc. This is for the purpose of proceeding through the study without incidents of acquiring illnesses as well as maintaining the safety of the participant.

Power Analysis and Sample Size Determination

The desired sample size is estimated using power analysis with a significance level of 0.05, a moderate effect size (f = 0.30), correlations of 0.5 and a power of 80%. A sample size of 50 is required to analyze.

Sampling Frame

In line with the protocol observed in the nurses' management office, the questionnaire was distributed by one (1) staff nurse from the office to varying nurses from different units. Therefore, the actual implementation of the study was done only with the aid of the management in the mentioned medical center. The respondents were chosen randomly and may or may not have pre-existing low back pain.

Sampling Design

Non-random purposive sampling was utilized in the study with respondents being staff nurses only.

Materials and Equipment

The respondents of the study will be provided with structured survey questionnaire determined to gauge the demographics of the participating individuals and another different questionnaire to assess their knowledge and practice of proper body mechanics individually. Sample Standardized Nordic Questionnaire will also be answered by the respondents to evaluate the perceived location of the pain. A set of two (2) questions without choices to answer to is

provided at the end part of the questionnaire that will help perceive the nurses' knowledge on proper body mechanics

Study Plan and Data Collection

This study utilizes structured and semi-structured mixed type questionnaire. A mixed type questionnaire includes open and close ended questions. A consent form will be provided prior to the participation of the respondents which will indicate their will to give personal information for educational purposes only. The researcher will introduce the researcher's relevant background information and the study along with its procedure and its purpose in a polite manner. The structured and semi-structured questionnaire consisting of questions measuring the knowledge and practice of proper body mechanics. The consent form will be attached to the questionnaire as well. The respondents were given a week to bring their questionnaires for them to answer on their available time. Documentation is done during and after the distribution of the questionnaire to the staff nurse.

Data Processing and Analysis

The data gathered will be analyzed by using a IBM SPSS to gauge the correlation between the variables from both knowledge and practice assessment questionnaire as well as using a collective data to correlate with the number of patients with low back pain.

Work Plan Schedule

The researcher conducted the study on February 4, 2020 with the first week utilized entirely on deciding on the respondents to be covered as well preparing the papers to be distributed. On February 14, 2020, the researcher visited the Nurses' Management Office to submit the transmittal letter to which the staff nurse declined to. It was noted that a copy of the final Chapter 1 of the study be given along with a copy of the questionnaire. On February 19, 2020, the researcher visited the office with the required papers to which the chief nurse checked during the visit. The research was approved. By February 25, 2020, the questionnaires were distributed to the staff nurse in the management office. Per instruction of the chief nurse, the questionnaire was only to be given to the staff nurse and they will be the one to distribute the papers among nurses in different units. It was an offer in the study that the respondents be given at least one (1) week to keep the questionnaire and answer on their available time. On March 10, 2020, the data was collected from the office and was analyzed using IBM Spss Data Analysis.

Ethical Considerations

This research project subscribes to the ethical principles of the conduct of research involving human subjects mandated by the Philippine Health Research Ethics Board and relevant national and international organizations. This project was also screened and approved by the Internal Ethical Review Board of the College of Rehabilitative Sciences in Southwestern University PHINMA.

Results and Discussion

This section presents the data and information gathered by the researchers in relation to the study. It should be noted that a few numbers may not coincide with the total data gathered as this is due to the missing answers skipped by several respondents during the implementation. In answer to the specific problems of the study, the findings are presented, analyzed, interpreted, and tabulated in the four (4) sections of this chapter namely:

1.   Socio demographic characteristics of the participants

2.   Knowledge on proper body mechanics

3.   Practice of proper body mechanics

4.   Influence of proper body mechanics on low back pain among nurses

Socio demographic characteristics of participants

Demographic data of the respondents showed that majority of the staff nurses were female encompassing 74% (n=25) of the total number of staff nurses while the male nurses only make up at least 26% (n=9). The nurses composed of 20-30 years of age were 82% (n=28) while those within 30-40 age group were 15% (n=5). Two (2) nurses were nineteen (19) years old. All the nurses (n=34) were staff nurses. Majority of the subjects were under Nursing Department with 47% (n=16), some from NICCU with 23% (n=8), 11% (n=4) from NSO, 5% (n=2) from Nursing Services, 2% (n=1) from ER, 2% (n=1) from UB, 2% (n=1) from ICCU departments respectively.

At least 47% (n=16) of the nurses admit to having low back pain (LBP) while 44% (n=15) do not

manifest LBP. 32% (11) of the nurses graded their general health status as very good, 38%

(n=13) admitted as good health status, and 5% (n=2) admitted having moderate health Status.

The nurses were 70% (n=24) composed of diploma holders while the other 23% (n=8) have high

education. 52% (n=18) of the nurses work at least 5-8 hours a day while 47% (n=16) responds to

9-12 hours of work per day. 41% (n=14) of the nurses have less than ten (10) patients a day,

35% (n=12) work with 11-19 patients a day, and 11% (n=4) have more than 20 patients a day.

The nurses with less than 5 number of years of experience are 85% (n=29) while 14% (n=5) have

5-10 years' worth of experience in the field.

Knowledge on proper body mechanics

This questionnaire is composed of fourteen (14) questions. In this study 29% (n=10) of

participants agreed that the Use of body mechanic can reduce back pain, 34% (n=16) were

strongly agree, followed by 26% (n=9) with neutral view on it. (See table 2.1). The data shows,

35% (n=12)of respondents were agree for lifting heavier patient with sheet is better than

hands, 47% (n=16) strongly agree, 2% (n=1) disagree, 15% (n=5) were neutral. (See table 2.1).

Results showed that 38% (n=13) participants agreed for having back pain if they don't maintain

the good posture while doing procedure, 47% (n=16) strongly agree, 2% (n=1) disagree, and

18% (n=6) were neutral. (See table 2.1) Body mechanic practices maintain the proper body

function, 47% (n=16) were agree, 47% (n=16) strongly agree, 9% (n=3) were neutral. Body

mechanic practices reduce the back pain, 32% (n=11) were agree, 53% (n=18) strongly agree,

18% (n=6) were neutral.

Results shows that, 41% (n=14) were agree about body mechanic practices maintain the balance, 53% (n=18) strongly agree, and 9% (n=3) were neutral. Results shown, 53% (n=18) were agree that Body mechanic use continuous muscles, 32% (n=26) strongly agree, 18% (n=6) were neutral. Object must be close to the gravity, 53% (n=18) were agree, 29% (n=10) strongly agree, 2% (n=1) were disagree, and 18% (n=6) were neutral. Regarding the use of continuous muscle tension causes injuries and musculoskeletal pain, 53% (n=18) were agree, 29% (n=10) were strongly agree, 2% (n=1) disagree, and 15% (n=5) who were neutral. Results shows 38% (n=13) of the respondent were agree about the principle of body mechanic, 47% (n=16) were strongly agree, 6% (n=2)were disagree, 2% (n=1) was strongly disagree and 12%(n=4) were neutral.

Table shows, 24% (n=8) were agree that injuries can be avoided with body mechanics, 56% (n=19) were strongly agree, 6% (n=2) were disagree, and 15% (n=5) were neutral. Results shows 35% (n=12) were agree, they know the purpose of using body mechanic, 56% (n=19) strongly agree, 12% (n=)4 were neutral. For Heavy work contribute to low back pain, 35% (n=12) were agree, 15% (n=17) were strongly agree, and 15% (n=5) were neutral. Improper use of body mechanic 32% (n=11) were agree, 53% (n=18) were strongly agree, 6% (n=2) disagree, and 9% (n=3) were neutral.

Practice of proper body mechanics

This questionnaire is composed of 8 questions, with which the results will be given accordingly. Results show that for Asking help from friend when lifting big patient, 21% (n=7) agree, 56% (n=19) strongly agree, while 21% (n=7) neutral. (See table 2.5). For straighten knees and

bending back when lifting object from the floor, 50% (n=17) agree, 24% (n=8) strongly agree, 18% (n=6) were neutral, 2% (n=1) disagree, while 2% (n=1) were strongly disagree. For using principle of body mechanics for shifting patient from bed to chair, 53% (n=18) were agree, 35% (n=12) were strongly agree, and 12% (n=4) were neutral. Closing leg when mobilizing patient in the bed, 29% (n=10) agree, 18% (n=6) strongly agree, 9% (n=3) were neutral, 24% (n=8) were disagree, and 21% (n=7) were strongly disagree.

Participants previously having back pain, 50% (n=17) agreed, 24% (n=8) strongly agree, 18% (n=6) were neutral, 2% (n=1) were disagree about this statement and 6% (n=2) were strongly disagree. About wearing proper attire during working, 47% (n=16) agree about this statement, 41% (n=14) strongly agree, and 12% (n=4) were neutral. Regarding the question if one knows about body mechanics, 41% (n=14) agreed, 41% (n=14) strongly agreed, and the remaining 15% (n=5) remained neutral. Participants practice of body mechanics all the time during working hours, 35% (n=12) agreed to this statement, 29% (n=10) strongly agreed, 29% (n=10) were neutral, and 2% (n=1) disagreed. (See table 2.8)

Influence of proper body mechanics on low back pain among nurses

The researcher utilized a Sample Standard Nordic Questionnaire for the objective of evaluating the characteristics of the low back pain for the respondents manifesting the condition. There are eight (8) questions in total and majority are answerable by 'yes' or 'no'. For the first question, "Do you have low back pain?", 47% (n=16) answered yes while 53% (n=18) answered no. "Were you hospitalized due to low back pain?", 6% (n=2) answered yes while 94% (n=32) answered no. "Have you changed jobs due to the pain?", to which 100% (n=34) answered no.

"Does LBP reduce your work activity?", 29% (n=10) answered yes and 68% (n=23) answered no.

"Does LBP reduce your leisure activity?", only 26% answered yes while 74% (n=25) answered

no.

For the question "Have you seen a physiotherapist due to the pain?", 24% (n=8) answered yes

while 76% (n=26) answered no. For the total length of time during the last 12 months with low

back pain, 32% (n=11) answered 0 days, 32% (n=11) answered 8-30 days and 2% (n=1)

answered greater than 30 days. Lastly, for the total length of time LBP prevent normal work

during the last 12 months, 35% (n=12) answered 0 days, 53% (n=18) answered 7 days and 12%

(n=4) answered the pain manifested at 8-30 days.

For this section, the researcher prepared two (2) questions that were subjective and not

answerable with options. The first question was, "What barriers prevent you from practicing

body mechanics?", 29% (n=5) answered it is due to the rushed situation, 24% (n=4) answered

lack of knowledge, 12% (n=2) answered due to emergency, 12% (n=2) also answered it is the

working schedule, 6% (n=1) answered they are more comfortable without proper body

mechanics, 6% (n=1) answered they often forget to practice it, 6% (n=1) answered they are too

tired to perform, and another 6% (n=1) answered it is because of their low back pain.

For the question, "What are the complications of not practicing low back pain?", to which

majority of 63% (n=10) answered they will develop injury while the remaining 38% (n=6)

answered they will develop low back pain.

DISCUSSION

This study was conducted to determine the relation of Knowledge and Practice of proper body mechanics on the prevalence of low back pain among nurses. Demographic data of the respondents showed that majority of the female staff nurses were within the age group of 20 to 30 years old and comprises at least 73% of the respondents, leaving the 26% to be males. A majority of 47% were from nursing department. Majority of the respondents or 70% were general nursing diploma holder and 24% were having BSN degree. At least 47% of the respondents admitted having low back pain compared to the4 4% who do not manifest such condition. In this study, the second portion of the questionnaires were about the knowledge of the participants. Majority of the respondents 85% have job experience of 0 to 5 years and 14 % having 5 to 10 years of experience in the field. As the results dictate, out of 34 respondents, 16 (n=47%) of the respondents have good knowledge about body mechanics, followed by 12 (n=35%) with average knowledge and 6 (n=18%) have fair knowledge on proper body mechanics. In this study almost 70% of the subjects have good practice of body mechanic technique, followed by 30% were having average practice of body mechanic techniques. This study revealed that there is a significant relationship of Knowledge and practice toward low back pain prevalence. Chi square statistics revealed (p=.ooo) which indicated that the more the knowledge of the participants about the body mechanic technique; the more they practice it. Similarly, a study conducted in Spain to check the effectiveness of the body mechanic checklist implementation. Findings revealed that an increase in the knowledge about body mechanics reduces the problem of low back pain and increases the practices of proper body mechanics.

CONCLUSION

The current study findings concluded that knowledge and practice of proper body mechanics have significant influence on nurses' low back pain prevalence. In addition to this, several nurses has a significant amount of knowledge on proper body mechanics. The practice of proper body mechanics is also commonly observed by majority of the nurses while also being aware of the complications of not practicing proper ergonomics.

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Appendix A: Research Instruments

I.   Sociodemographic Data

Instructions: Write the data asked in the corresponding spaces. For those with choices, please put a check mark (√) on the space beside it.

Name (optional):			
Age:			
Gender:			
Job Position:			
Department:			
Past Medical History:			
Do you currently have low back pain?			
General Health Status (Very Good, Good, Moderate):			
1.	Marital Status	Single Married Separated Divorced Widowed	
2.	Level of Education	Diploma High Education	

3.	Hours of working per day	5-8 hrs 9-12 hrs	
4.	Nurse-patient ratio per day	<10 11-19 >20	
5.	Years of Experience	<5 5-10 >15	

II. Knowledge of Proper Body Mechanics

Instructions: Kindly put a check mark (√) on your choice of answer.

#	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Use of body mechanics can reduce back pain					
2.	Lifting heavier patient by using bed sheet is better than hands					
3.	I have back pain if I don't maintain the good posture while doing procedure					
4.	Practicing body mechanics maintain the proper body function					
5.	Practicing body mechanics reduces the strain/spasm					
6.	Practicing body mechanics maintains balance					

7.	Use of continuous muscle tension causes injuries and musculoskeletal pain					
8.	Object must be close to gravity					
9.	The principle of body mechanics may produce less friction than reject					
10.	Injuries can be avoided through body mechanics					
11.	I know the purpose of using body mechanics					
12.	Heavy work activities like bending, twisting, and frequent heavy lifting contribute to low back pain					
13.	Improper use of body mechanics causes spinal injuries					
14.	Attire (shoes) play an important role to influence back pain					

III.   **Practice of Proper Body Mechanics**

Instructions: Kindly put a check mark (v) on your choice of answer.

#	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I ask help from a friend if I have to lift big patient					
2.	I straighten knees and bending back when lifting object from the floor					
3.	I use the principle of body mechanics during procedure for removing patient from bed to chair					
4.	I close my leg when moving patient in the bed					
5.	I experience back pain previously					
6.	I wear proper attire (shoes) during working time					
7.	I know what body mechanics					

	is all about				
8.	I practice body mechanics all the time during working time				

IV. **Sample Standardized Nordic questionnaire**

Instructions: Kindly put a check mark (√) on your choice of answer.

#	Question	YES	NO
1.	Do you have low back trouble?		
2.	Were you hospitalized due to low back pain (LBP)?		
3.	Have you changed jobs/duties because of low back pain?		
4.	Does LBP reduce your work activity?		
5.	Does LBP reduce your leisure activity?		
6.	Have been to a physiotherapist or chiropractor because of LBP?		
7.	Total length time during the last 12 months with low back pain	0 Days 8-30 Days >30 Days	
8.	Total length of time LBP prevent normal work during the last 12 months	0 Days 7 Days 8-30 Days >30 Days	

V. **What are the barriers that prevent you from practicing proper body mechanics?**

VI.**What are the complications of not practicing proper body mechanics?**

Appendix B: Informed Consent Form

INFORMED CONSENT FORM

This informed consent is for nursing staff, who we are inviting to participate in the research project Relation of Knowledge and Practice of Proper Body Mechanics among Nurses on the Prevalence of Low Back Pain.

This Informed Consent Form has two parts:

PART I: Information Sheet *(to share information about the research project with you)*

PART II: Certificate of Consent *(for signatures if you agree to take part)*

PART I: INFORMATION SHEET

I am conducting a research on Relation of Knowledge and Practice of Proper Body Mechanics among Nurses on the Prevalence of Low Back Pain. This study evaluates the knowledge and practice of proper ergonomics among nurses and confirming its relation and influence on the prevalence of low back pain.

There may be some words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me, the study doctor, or the staff.

Purpose of the Research Project

You are encouraged to take part in the research study. Before you confirm to participate and engage with the study, it is important to understand the purpose,

the process and how it is done. Please read the information carefully. If you need to clarify something about the research study information, do not hesitate to approach the researcher.

The purpose of this research study is to evaluate if the knowledge and application of proper body mechanics has influence on the prevalence of low back pain among nurses.

This study will provide opportunity to further awareness on proper body mechanics and its relation to low back pain. A developed sense for proper ergonomics at work can further productivity as well as reduce low back complications as much as it will be of help in developing studies in Physical Therapy.

Type of Research Intervention

No intervention was used in this study.

Participant Selection

Due to the close relation and being under the same management, the researcher found it of equal importance to check on the ergonomics of the neighboring institution. The researcher gathered that by acquiring enough data from the respondents, the researcher may help promote a healthier lifestyle to the respondents as both their profession and the researchers work beside each other's aid.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, all the services you may be currently receiving will continue and nothing will change.

If you choose not to participate in this research project, you will be offered the treatment that is routinely offered, and we will tell you more about it later. You may change your mind later and stop participating even if you agreed earlier.

Information on the Intervention

No intervention was used in this study.

Procedures and Protocol

Nurses, with or without low back pain, will be the respondents in this study. Respondents will answer on questionnaires assessing their pain and the subjective perception on body mechanics. Subjects will be given copies of said questionnaires and can answer the materials on their available time. Data gathering will be within one (1) week and subjects' answers will be collected within such time.

Duration

This research takes place over one (1) week in total. During that time, you will take hold of your questionnaire and answer it on your available time for the entire one week offered in the study. The research is expected to be finished by February 29, 2020.

Side Effects

Time and effort of the respondents may be required during the course of the study.

Risks

There are possible risks of leakage of confidential information during the conducting of the study. However, the researcher assures no such bad implication will occur with the best of her abilities. If it may so, the researcher will apologize and compromise to the respondent's decision on the matter.

Benefits

Participants are granted to receive knowledge in practicing proper body mechanics to improve their daily productivity and comfort at work and at home. Boosting the practice of proper body mechanics not only improves quality of life but also avoids the cost of developing complications along the way.

Reimbursements

There will be representation expenses that will be provided for the respondents after the study.

Confidentiality

The information that we collect from this research project will be kept confidential. Information about you that will be collected during the research will be put away and no one, but the researchers will be able to see it. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is, and we will lock that

information up with a lock and key. It will not be shared with or given to anyone except the

College of Rehabilitative Sciences Research Coordinator.

Sharing the Results

The knowledge that we get from doing this research will be shared with you through stakeholder

and community meetings before it is made widely available to the public. Confidential

information will not be shared. There will be small meetings in the participants and wider

community, and these will be announced.

After these meetings, we will publish the results in order that other interested people may learn

from our research.

Right to Refuse or Withdraw

You do not have to take part in this research if you do not wish to do so and refusing to

participate will not affect your treatment (if you are receiving any) in any way. You will still

have all the benefits that you would otherwise have normally. You may stop participating in the

research at any time that you wish without losing any of your rights as a respondent. Your

treatment (if receiving any) will not be affected in any way.

Who to Contact

If you have any questions, you may ask them now or later, even after the study has started.

PART II: CERTIFICATE OF CONSENT

I have read the foregoing information, or it has been read to me. I have had the

opportunity to ask questions about it and any questions that I have asked have been

answered to my satisfaction. I consent voluntarily to participate as a participant in this

research.

_____ **Signature over printed name** **Research Participant**	_____ **Date signed**

Statement by the Researcher/Person taking the Consent

I have accurately read out the aforementioned information sheet to the potential

participant. I confirm that the participant was given an opportunity to ask questions about

the study, and all the questions asked by the participant have been answered correctly and

to the best of my ability. I confirm that the individual has not been coerced into giving

consent, and the consent has been given freely and voluntarily.

 A copy of this ICF has been provided to the participant.

_____ **Signature over printed name** **Researcher/Person taking the Consent**	_____ **Date signed**

Nothing below this line.