

## IIUM IBADAH DISABILITY SCALE (IIDS): DESIGN AND CONCEPTUAL FRAMEWORK

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### ABSTRACT

Illness does not alleviate the obligation of Muslim patients to perform religious duties such as prayer. The need for a systematic evaluation of patients' ability to perform such duties needs to be highlighted and anticipated. Thus, a research was designed to develop a standard, objective evaluation scoring system to recognize disability levels of Muslim trauma patients in performing religious physical cleansing and prayer during their illness and improve the deliverance of assistance they need. This research involves five stages. 1-Identifying common and specific problems faced by trauma patients, 2-Constructing a disability score based on data obtained, 3-Incorporating Islamic rulings and pilot testing, 4-Validation and reliability testing, and 5-Patient categorization and development of an in-patient coding system. Trauma patients of general orthopaedic wards of a local institution were recruited for this research. In the initial phase of this research, we had identified problems contributing towards patients' ability to perform religious practices during hospital admission. These can be grouped into four main factors; the patient, the staff delivering the assistance, hospital policies and availability of facilities. Subsequent phases of this research will focus more on the first and second factors. Three major outcomes are expected at the end of this research. A disability score to categorize trauma patients according to their needs, a manual based on Islamic rulings and convenience related to common and specific disabilities, and a coding system to assist physicians and hospital staff in scrutinizing the types of assistance required by patients. This will be the first scoring system that is constructed based on both patients' and physicians' perspectives of difficulties in performing religious duties. It will provide a balance approach in trauma patients' care and deliverance of assistance wherever required. The proposed scoring system has potential of becoming a standard of practice in a more holistic patient care in accordance to the much-anticipated ibadah-friendly hospital.

Key words: disability score, Muslim prayer, quality of life, religion, trauma

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### Introduction

The concept of *ibadah* (worship) in Islam involves compliance and obedience to all that is prescribed by Allah through His messenger p.b.u.h. *Solat* or prayer is one of the pillars of Islam and a fundamental component of *ibadah*. Muslim prayer involves physical motions and recitations. It requires cleansing of body, ablution, and proper clothing prior to the prayer. For Muslim patients, illness does not alleviate the obligation to perform the religious duty (Reza, Urakami, & Mano, 2002). Hospital admissions due to trauma constitute the majority of patients in orthopaedic practice. Disabilities caused by traumatic injuries differs between cases. The degree of difficulties varies according to the types and level of disability. Hence, different categories of patients require different needs of assistance in performing their prayer.

Majority of Muslim patients are not aware of the convenience (*rukhsah*) allowed for them in performing their prayer and other religious duties during hardships and illnesses leading to negligence in performing them (Al-Obaidi, Wall, Mulekar, & Al-Mutairie, 2012; Reza et al., 2002). While the concept of *rukhsah* have been explained widely in Islamic literatures, most of the discussions kept an open concept for the applications in most disabilities and handicaps. This is to make ease in applying the principles in various difficult situations. Healthcare providers particularly doctors and nurses play a big role in identifying and categorizing patients' according to their disabilities. A number of functional evaluation scores have been used to evaluate patients with musculoskeletal conditions and disabilities (Badalamente et al., 2013a, 2013b; Dowrick, Gabbe, & Williamson, 2005; Dowrick, Gabbe, Williamson, & Cameron, 2005; Simmen et al., 2009; Yeung, Wessel, Stratford, & Macdermid, 2009). Best to our knowledge, no standard scoring system incorporating patients' ability to perform religious duties is available or widely used.

The need for a systematic evaluation of patients' ability to perform such duties has to be highlighted and anticipated (Margolis, Carter, Dunn, & Reed, 2003). In patients with long bone fracture, motions of the joints proximal and distal to the fracture will be affected, either by the severity of the injury or immobilization of the joints as part of the fracture treatment. For example, a patient with a fracture of mid-shaft humerus over the arm treated non-surgically will need immobilization of the shoulder and elbow joints. Although he may not have problems in performing ablution on the affected extremity, he will need assistance in performing it over the contra-lateral side. Performing prayer in the usual manner would also be a problem, especially for certain movements in the prayer. But a patient with fracture over the distal forearm treated surgically may not have problem in performing his prayer but difficulties in performing ablution remains during the initial phase after the surgery.

Unlike upper extremity fractures, most patients with long bone fracture of the lower extremity will have problems in terms of weight-bearing and movements of the hip, knee and ankle. This depends on the types and level of the fracture, as well as methods of treatment. They may need to perform their prayer in a sitting or lying position. Ablution may not be a problem if the injured part does not involve the foot or the ankle joint. But performing ablution will be difficult without assistance if the patient is on any form of immobilization appliances.

We believe that there is a dire need for a systematic evaluation of disabilities that is easy to be administered and scored, and applicable to a wide range of cases involving Muslim patients with traumatic injuries, particularly long bone fractures of the upper and lower extremities. Thus, a research project was designed to develop a standard, objective evaluation scoring system to recognize disability levels of Muslim trauma patients in performing religious physical cleansing and prayer during their illness, and improve the deliverance of assistance they need.

### **The Importance Of Developing An *Ibadah* Disability Scale**

Disabilities following traumatic injuries varies and commonly related to functional impairments. Most disability or functional scoring system measures the ability of patients to perform activities of daily living (ADL) with most of the domains included are abilities to groom, toileting, mobility, feeding and socializing. As for Muslims, prayer is undoubtedly one of the most important ADL, in which Muslims are required to perform five times daily prayers. The obligation falls upon both men and women regardless of any physical impediment or conditions (Margolis et al., 2003). While this ruling falls upon all Muslims, Islam does not burden upon them hardships in performing their religious duties (Adul, 2001; Ariff, 2014, 2015; Che Anuar, Rosazra, Ariff, & Mai Ashikin, 2015; Kasule Sr., 2004a; Mohd Yusoff, Abdullah, Muhamad, & Wan Abdullah, 2011). Unfortunately, most patients are not aware of the proper way in performing prayer during their difficult condition, thus neglect their obligatory duties. Some study reported patients neglected their prayers during their ward stay due to poor knowledge on performing them under sick conditions, limitations due to pain, poor mobility and hospital support (Ariff, 2014, 2015). Healthcare providers can play a major role in providing proper guidance, assistance and reinforcement in performing prayers among the in-ward patients (Ariff, 2014; Che Anuar et al., 2015; Mohd Yusoff et al., 2011).

But handling a crowded ward is not as simple as it seems. Imagine guiding and delivering assistance to about 20 to 30 patients during every prayer time. Furthermore, even the healthcare providers need to know what type of assistance the patients need. Keeping these in mind, we believe a standard, systematic *ibadah* disability score that is easy to be administered and applicable to a wide range of trauma cases is needed. As mentioned earlier, most disability or functional scoring systems measures patients' ability to perform ADLs thus assisting in setting up targets for therapeutic and rehabilitative aims. Similar approach can be utilized in categorizing the patients based on their disabilities and needs to help caregivers deliver assistance for the patients to perform their prayer. A comprehensive scoring system should include all the relevant domains in identifying the disabilities related to preparing oneself for the prayer, physical cleansing, and performing the prayer. Not only that, it should also take into consideration of the limitation and availability of assistance that can be provided by the caregivers to avoid jeopardizing their core roles as practitioners. These, motivated us to design a research project on identifying the problems faced by Muslim patients in ward, and develop a disability score with hope to improve the deliverance of assistance to them pertaining to performing their religious duties, particularly their prayers. This paper discuss on the concept and stages in developing the anticipated disability scoring system.

### **Designing The Iids**

Developing the International Islamic University Malaysia (IIUM) *Ibadah* Disability Score (IIDS) will involve various stages. This is important to achieve specific objectives of the project. We would like to assess the types and levels of disability faced by Muslim patients with traumatic injuries and categorize them according to their ability in terms of performing religious duties. From there on, we would like to develop a preliminary scoring system incorporated with the most convenient ways to perform the religious duties based on Islamic rulings on the concept of *rukhsah* according to the categories of disabilities identified.

### **Stage 1: Identifying Common And Specific Problems Faced By Trauma Patients**

Trauma commonly involves physical injuries, which can caused permanent or temporary disability. Musculoskeletal injuries has become one of the common cause of death, disability and suffering globally. Majority of such disabilities were due to extremity injuries (Mock & Cherian, 2008). Disabilities commonly related with functional impairments and decreased in quality of life. Such conditions will affect their ability to manage basic ADLs and higher risk of inactivity or sedentary lifestyles. They can negatively impact the ability to dress, bathe, eat, or walk without assistance (Cooper et al., 1999). Furthermore, traumatic injuries can be very stressful. Post-traumatic stress disorders (PTSD) are commonly observed after skeletal trauma and strongly related to

disability (Bhandari & Sanders, 2003). In a recent study, about one third of patients with PTSD was diagnosed after skeletal trauma (Vranceanu et al., 2014).

The first stage of the research project is to identify common and specific difficulties as well as problems faced by various categories of trauma patients depending on their level of disabilities. Patients between 18 to 55 years of age will be recruited from orthopaedic wards of a tertiary hospital. Data collection will be conducted using a self-reported questionnaire for patients and their caregivers, as well as observations and functional assessment by physicians. Since there is no such scoring system available in the literature, 100 patients will be recruited for data collection to develop the scoring system based on a similar functional assessment done by Binkley et al (1999). All data will be organized in a proforma along with patients' demographic information (age, gender, occupation, level of education, and level of religious education), practice of prayers before illness, cause of disability/ injury, severity of disability or functional impairment, and problems/ difficulties faced in preparing and performing the prayers.

**Stage 2: Constructing A Preliminary Scoring System**

Information obtained from the first stage will be analysed and converted into a preliminary scoring system according to the disability levels that are affecting the patients' ability to prepare and perform the prayers. Similar to previous widely used functional scoring system such as the Barthel ADL Index (Mahoney & Barthel, 1965), the Lower Extremity Functional Scale (LEFS) (Binkley et al., 1999), and the disability scale developed by Mock et al. (2003), the preliminary scoring system will be constructed based on several domains with specific scales. While the previous scoring system measures the basic functions to perform ADLs (Table 1), the preliminary scoring system will consist of two parts; pre-prayer preparations, and positions/ motions during prayer. At the end of this stage, items will be further reduced by removing duplicate and non-applicable items.

Table 1: Components of Barthel Index

Basic ADL Function	Score
Feeding	0 - unable
	5 - needs help cutting, spreading butter, etc., or requires modified diet
	10 - independent
Bathing	0 - dependent
	5 - independent (or in shower)
Grooming	0 - needs to help with personal care
	5 - independent face/hair/teeth/shaving (implements provided)
Dressing	- dependent
	0 - needs help but can do about half unaided
	5 - independent (including buttons, zips, laces, etc.)
Bowels	10 - independent
	0 - incontinent (or needs to be given enemas)
	5 - occasional accident
Bladder	10 - continent
	0 - incontinent, or catheterized and unable to manage alone
	5 - occasional accident
Toilet use	10 - continent
	0 - dependent
	5 - needs some help, but can do something alone
Transfers (bed to chair and back)	10 - independent (on and off, dressing, wiping)
	0 - unable, no sitting balance
	5 - major help (one or two people, physical), can sit
	10 - minor help (verbal or physical)
Mobility (on level surfaces)	15 - independent
	0 - immobile or < 50 yards
	5 - wheelchair independent, including corners, > 50 yards
	10 - walks with help of one person (verbal or physical) > 50 yards
	15 - independent (but may use any aid; for example, stick) > 50 yards

	-	unable
Stairs	-	needs help (verbal, physical, carrying aid)
	0	-
	5	independent
	10	

### Stage 3: Incorporating Islamic Rulings And Pilot Testing

Most of the guidelines available and used in general hospitals only looked into opinions by authorities and respective scholars but with limited views on the perspective of the patients. Most references available are more of “care-givers”-oriented rather than patient-oriented. As the results showed, despite the *ibadah*-friendly hospital campaigns nation-wide, the numbers of patient in-ward performing their obligatory religious duties are still low. Various reports available on this particular matter but to elaborate them in depth would make this paper too lengthy. For example, in most guidelines patients who are unable to perform ablution by themselves would require assistance from the staff in ward, whom most of the time are the nurses. If the patient is of the opposite gender, the assistant will be required to cover their hands to avoid direct contact with the patient when performing the ablution. Imagine a day when 10 patients in the male ward require assistance to perform ablution for five-time obligatory prayers. This would mean around 250 pieces of glove required per day to assist these patients. This number only applies when the assistant used only a single glove per patient for each session. This is definitely non-practical and money-consuming. Unless they are keen to recycle the gloves for multiple use, the *ibadah*-friendly hospital campaign will fail just referring to this problem per se (Kasule Sr., 2004b, 2004c; Sharifudin, Taib, Johari, & Razali, 2005).

"Hardship begets facility" is stated in *qawaidh al-fiqhiyyah* of Islamic jurisprudence. *Qawaidh al-fiqhiyyah* are general rules which can be applied in various cases that come under common ruling (Che Anuar et al., 2015). It is stated that leniency is given to any ruling that causes hardship to a person or the action is unable to be performed by a particular person for a specific acceptable reason. There are several Quranic verses and al-Hadith quoted in support of this maxim. Hence, the reality points towards the need for the most convenient way for the patients to perform their duties, and for the care-givers to give the best assistance in return. What is required are guidelines taking the patients' perspective into consideration and incline towards methods of the most convenient way instead of opinions from the majority or the authorities only. But, in keeping with the commitment to practice with the most reliable option, such guidelines require evidence.

At this stage, the initial draft will be discussed with a focus group consisting of orthopaedic surgeons and Islamic religious scholars. The focus is to refine the scores and incorporating the Islamic rulings and convenience related to the disabilities. A pilot investigation (n = 50) will be carried out on a group of Muslim patients for reliability, responsiveness and sample size requirements for a larger study.

### Stage 4: Validation And Reliability Testing

The final version of the scoring system will be tested on a different cohort of trauma patient with similar inclusion criteria. The study design will be a prospective, cohort design utilizing convenience sampling method. Minimum sample size for the validation and reliability analysis is calculated from the pilot study results, with an 80% likelihood of detecting differences and allowing for 15 % attrition with  $p < 0.05$ . The scoring system will be administered upon admission to the ward and once a week until the patient is discharged from the ward. The scoring system will be evaluated for its validity and internal consistency by means of statistical analysis.

### Stage 5: Patient Categorization And Development Of An In-Patient Coding System

In the final stage of the project, categorization of disabilities is made based on the scores obtained from patients. From there on, an in-patient coding system will be constructed with scales of 0 to 4; 0 indicates “no disability – does not require assistance”, and 4 indicates “severe disability – requires full assistance”. The scale will be administered upon patients' admission to the ward and regularly re-evaluated especially upon changes in management. Similar to the triage concept used in the field of medicine (Iserson & Moskop, 2007), especially in the emergency department, this approach is hoped to help healthcare providers in the wards to optimize the deliverance of assistance depending on the priority and needs of the patients.

### The Final Outcomes

Three major outcomes are expected to be produced at the end of this research project: 1) a disability scoring system to categorize Muslim trauma patients according to their needs, 2) a manual based on Islamic rulings and convenience related to common and specific disabilities, and 3) a coding system to assist physicians and hospital staff in scrutinizing the types of assistance required by patients. They will be among the first systematic evaluation tools constructed based on both patients' and physicians' perspectives on difficulties in performing religious duties due to various traumatic disabilities.

In the process of developing the scoring system, the meet points of all major factors influencing patients' performance in religious duties during hospital admission (Sharifudin et al., 2005); patient's attitude, awareness and practice, infrastructures provided, assistance from hospital staff, and hospital policies, can be identified and discussed. An *ibaadah*-friendly hospital campaign requires determination and perseverance to make sure the campaign is progressive and accepted by all. It will not be successful if the campaign is not balanced between these four important elements (Ariff, 2014, 2015).

## Conclusion

We foresee that the three outcomes produced at the end of this project will provide a balance approach in trauma patients' care and hasten the deliverance of assistance wherever required. It is also potential as a progressive assessment in which can include out-patients by monitoring their improvement in illness along with their ability to perform religious duties. Scoring will improve as the patient graduated from their illness. It is also hoped that the used of the proposed scoring system can further explored in future researches for application on patients other than trauma as well as in other health institutions. The proposed scoring system will smooth the process of delivering care to the patients in difficult situation without neglecting patients to performing their prayers. It has potential of becoming a standard of practice in a more holistic patient care in accordance to the much anticipated *ibadah*-friendly hospital.

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