



UNIVERSITI TEKNOLOGI MARA

PROTECTION MOTIVATION THEORY: PERCEIVED RISK  
AND SUSCEPTIBILITY OF H1N1 AMONG EDUCATED  
YOUNG ADULT

MOHAMAD GHAZALI MASURI

RMI : 600-RMI/ST/DANA 5/3DST (313/2009)

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En Mohamad Ghazali bin Masuri  
Ketua Projek

En Mohd Pozi bin Mohd Tahir  
Ahli Projek

~~En Khairil Anuar bin Md Isa~~  
Ahli Projek

Fakulti Sains Kesihatan  
UiTM KAMPUS PUNCAK ALAM

Tuan

**KELULUSAN PERMOHONAN DANA KECEMERLANGAN FASA 03/2009**  
**TAJUK PROJEK : PROTECTION MOTIVATION THEORY: PERCEIVED RISK AND**  
**SUSCEPTIBILITY OF H1N1 AMONG EDUCATED YOUNG ADULT**

Dengan segala hormatnya perkara di atas adalah dirujuk.

Dengan sukacitanya, Institut Pengurusan Penyelidikan (RMI) mengucapkan tahniah kepada tuan kerana telah berjaya ditawarkan Geran Dana Kecemerlangan bagi projek penyelidikan tersebut tertakluk kepada syarat-syarat dalam lampiran.

Tempoh projek penyelidikan ini ialah satu (1) tahun, iaitu bermula 01 Januari 2010 hingga 31 Disember 2010. Peruntukan yang diluluskan ialah sebanyak RM10,000.00 sahaja bagi Kategori A. Tuan diminta mengemukakan kertas cadangan penyelidikan beserta bajet yang baru seperti yang dicadangkan dan bersesuaian dengan jumlah kelulusan yang telah diluluskan.

Sekian, harap maklum dan terima kasih.

**"SELAMAT MENJALANKAN PENYELIDIKAN DENGAN JAYANYA"**

Yang benar



**MUSTAFAR KAMAL HAMZAH**  
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Merangkap Ketua Penyelidikan (Sains dan Teknologi)

- s.k. 1. Dekan, Fakulti Sains Kesihatan, UiTM KAMPUS PUNCAK ALAM  
2. Puan Rosnani Abdul Razak, Penolong Bendahari  
Unit Kewangan Zon 17 (Penyelidikan)

4244/15

## DECLARATION

All studies completed under the grant were the original works from the author and other members. The original title of the proposed proposal was; Protection Motivation Theory: Perceived Risk and Susceptibility of H1N1 among Educated Young Adult had been changed to; Behaviour Response among Health Sciences Students towards H1N1 Pandemic. The study had used the same methodology as proposed.

To fully optimize the grant, researcher had used it in producing few more research papers and project which strongly belief has a significant impact on scholarly activity. Other project which was successfully produced was as follows:

1. Translation of the Pain Disability Index (PDI) to Malay Version with Reliability Evaluation and Validation – IEEE CSSR Kuala Lumpur 2010, proceeding under SCOPUS
2. Children, Youth and Road Environment: Road Traffic Accident – AicE-Bs 2010, Kuching, Malaysia (process of publication-Elsevier, Science Direct. Full paper in the process of publication on AJSB Sept. 2011)
3. Behaviour Response among Health Sciences Students towards H1N1 Pandemic – AicE-Bs 2010, Bandung, Indonesia (process of publication-Elsevier, Science Direct)
4. Primary School That Built Before 2008: Compliance towards Wheelchair Accessibility According to MS1184:2002 – AicE-Bs 2010, Famagusta, Cyprus (process of publication-Elsevier, Science Direct)
5. IID 2011 Puncak Alam & Puncak Perdana – First place (academic FSK)
6. IIDSE 2011: UiTM Shah Alam – Silver.

With these achievements, we are looking forward for more grants and support from RMI in the future.

## ACKNOWLEDGMENT

Thank you to Allah (SWT) who game us strength to complete the project. These studies would like to appreciate the Faculty of Health Sciences and Research Management Institute (RMI) of Universiti Teknologi MARA for supporting the project under the Dana Kecemerlangan grant – 600-RMI/ST/DANA 5/3/Dst (313/2009). Thank you to all who had involved either direct or indirectly in the entire project.



# Translation of the Pain Disability Index (PDI) to Malay Version with Reliability Evaluation and Validation

Mohamad Ghazali Masuri<sup>1</sup>, Khairil Anuar Md Isa<sup>2</sup> and Nor Adilah Abdul Wahab<sup>1</sup>

<sup>1</sup> Occupational Therapy Department,

<sup>2</sup> Basic Sciences Department,  
Faculty of Health Sciences,  
UiTM Puncak Alam,  
42300 Puncak Alam,  
SELANGOR

## Abstract

The original version of the Pain Disability Index (PDI) was being translated into a Malay version by the standard procedure, followed by evaluation for its psychometric properties. 80 patients with chronic pain were agreed to participate in this study. The ages range from 18 to 66 years old. The interviews were conducted within ten days between February, 2010 and March, 2010. The items demonstrated high loading with one factor, however, there was only one item was loaded with another unknown factor. Contrast with that, scree plot had proved that there should be only one factor in this instrument. The value of KMO is 0.831. The coefficient alpha demonstrated good internal consistency of the items. Cronbach's alpha had given the value of 0.792, with the total corrected correlation of each item is above 0.2. The Malay version of PDI is proved to be reliable and valid instrument in assessing disability daily activities effect by pain, and is comparable with the original version of PDI in terms of structure and psychometric properties.

## Key words

*Pain measurement, chronic pain, validation study, reliability, Malay version*

## Introduction

Pain is subjective, which is only known to the person who suffers as the personal experience. People who suffer pain will lead to the certain degree of disability. According to Arnstein et. al. (1998), there is few evidences claims that pain is the most predictor of the degree to which the people will have disabilities. Meaning that, people who suffer pain whether acute or chronic, because of their injury or illness, might increase the possibilities to be disabled. Some of the researchers believe that disability is associated with self efficacy beliefs, which is defined as personal judgments of how well a person believes they can perform specific behaviors in particular situations (Arnstein et. al., 1998). In Malaysia, there were about a million of adults who suffering chronic pain, which were then result in interference in daily activities (Third National Health and Morbidity, 2006). Thus, it is useful to have assessment on them regarding the self efficacy, in order to find out the extent to which they are disabled due to pain (Gauthier et. al, 2008). Nowadays, there is variety of self report questionnaires that had been developed to assess the disability of a person due to pain. These questionnaires allow respondents to make their own judgment on their ability to complete the daily task and leisure, as well as the task that involve their role in work (Gauthier et. al, 2008). Some of the common questionnaires that always being used in the research field are Roland-Morris Questionnaire (RMQ), Oswestry Disability Index (ODI), Orebro Musculoskeletal Pain Screening Questionnaire (OMPSQ), Visual Analog Scale (VAS) and Pain Disability Index (PDI). The most

reason why these questionnaires always being used in the research field is because of it is simple and easy administration and scoring, which then help much the researcher in their study (Gauthier et. al, 2008). Besides, the Short Form 36 or the McGill Pain Questionnaire (MPQ) or asking for complaints was also being used to measure the effects of pain on activities, and it was the common method that being used in previous study regarding disability due to pain (Stall et. al, 2007). These methods unfortunately were unable to differentiate between daily life activities and to measure the impairment. Hence, Pain disability Index (PDI) was preferable to be used for this purpose (Stall et. al., 2007). Differ from others pain related questionnaire, Pain Disability Index (PDI) is a brief and more global, comprehensive questionnaire because it comprises all the areas of life (Gauthier et. al, 2008). PDI help a person to measure the degree their daily lives are disrupted by chronic pain. A person will respond to the seven types of questions, which is characterized by home, social, recreational, occupational, sexual, self care and life support activities. The reason of conducting this research is because the questionnaires that being used for clinical assessment, outcome measurement and research methodology must be modified culturally in order to compare the data, where the patients or the respondents who being measured is using the different language (Jeon et.al., 2006). According to Zatzick et.al. (1990), each races and ethnic with different language spoken have the dissimilarity in determining report, perception and values towards pain. For our knowledge, PDI already has been translated into four languages which are Finnish, Swedish, Dutch and French-Canadian (Gauthier et. al, 2008). However, the Malay version of PDI is still not available. Therefore, it is hope that this research will overcome the unavailability of Malay version questionnaire in order to assess disability that is associated with pain.

## Methods

This research had been conducted by using cross-sectional study. Cross-sectional study is a type of quantitative method which emphasizes the collection of numerical data and the statistical analysis of hypotheses proposed by the researcher. In this type of study, the researcher will either select the entire population or subset from this population in order to answer the research questions of interest. The data that being collected will represent what is going on at one point of the time.

This study is types of construct validity, where the survey of the instrument that being used measures how well the instrument perform in clinical and research setting.

This research was take place in Occupational Therapy Department of Hospital Kuala Lumpur (HKL). The reason of choosing this setting is due to time and money constraint.

## Sample Size and Sampling Method

There was evidence which stated that the ratio of 10 cases per item for factor analysis is appropriate (Nunnally, 1978, cited in Kline, 2005). It gives the example of a 20-item scale would require about 200 cases to converge on a stable factor structure. It is suggested that a sample of  $N - n - 1 > 50$ , where  $N$  is sample size, and  $n$  is number of items is appropriate for the associated significance test. As this questionnaire has 7 items, thus the sample of 80 would be more than sufficient ( $80 - 7 - 1 = 72, 72 > 50$ ). 30 of them were being for the pilot study of this research, while the rest would be for the validity. According to Deslauriers et. al. (2009), it is sufficient to have 30-40 patients in validating a scale and 35-45