





4th International Research Symposium on Pure and Applied Sciences 2019

Faculty of Science
University of Kelaniya

"Technovation: Inspiring next generation of future entrepreneurs"

PROCEEDINGS 2019



IRSPAS 2019 25th October 2019

A simulation on optimizing the performance of a bank pawning centre: a case	118
study W. M. T. N. K. Weerakoon, P. D. R. S. Senarathne, R. V. M. Maduwanthi and P. H. N. T. Sandaruwan	
Factors associated with valuation of land in colombo district: a case study B. J. R. I. Mendis and S. D. Viswakula	119
A simulation on performance improvement at a university cafeteria: a case study I. D. W. Samarawickrama, T. U. Naotunna, I. W. A. T. Bhagya and H. M. C. N. K. Herath	120
Learning analytics intervention and evaluation of factors associated with student academic performance in SLTC education study programs R. A. C. S. Ranawaka and W. A. S. N. Perera	121
Feasibility of the use of Wavelet theory for the analysis of climate changes R. A. C. S. Ranawaka	122
Multidisciplinary Research - Oral presentations	
Plenary Speech Out of the Box Thinking: Next BIG Thing to Win Back the 'Lost Paradise' Nilwala Kottegoda	123
Questionnaire survey of knowledge of farmers in Lankapura, Polonnaruwa district about foot and mouth disease (FMD), 2019 B. A. M. P. Siriwardhana	124
Perceived barriers and self-efficacy on weight reduction among obese young adults in Colombo, Sri Lanka K. G. G. Priyangika, S. Wasalathanthri, R. Jayawardena and P. Hettiarachchi	125
The cross-cultural adaptation of Morisky Green Levine Medication Adherence Scale for use with diagnosed patients of Ischemic Heart Disease in Sri Lanka W. G. C. Kumara, P. De Zoysa, A. Balasuriya and N. F. J. Fernando	126
Determination of narcotic (morphine, codeine, 6-monoacetylmorphine) levels in human urine by gas chromatoghraphy I. D. M. Manohari, W. D. V. Karunaratne and T. Abeysinghe	127
Synergism of cell penetrating peptides in adsorbing to DOPC lipid bilayers N. K. Wijesiri, B. T. Kumara, P. W. C. M. Purijjala and R. J. K. U. Ranatunga	128
Fabrication, optimization and evaluation of an indirect heated forced air circulation type solar dryer for drying of <i>Pogostemon heyneanus</i> Benth L.J. Amadoru, D. C. Abeysinghe, H. A. W. S. Gunathilaka, and R. M. Dharmadasa	129

Abstract No: MO-03

The cross-cultural adaptation of Morisky Green Levine Medication Adherence Scale for use with diagnosed patients of Ischemic Heart Disease in Sri Lanka

W. G. C. Kumara^{1*}, P. De Zoysa², A. Balasuriya³ and N. F. J. Fernando⁴

¹Department of Nursing and Midwifery, Faculty of Allied Sciences, Kotelawala Defence University, Sri Lanka

²Department of Psychiatry, Faculty of Medicine, University of Colombo, Sri Lanka
³Department of Para Clinical Sciences, Faculty of Medicine, Kotelawala Defence University, Sri Lanka

⁴Department of Clinical Sciences, Faculty of Medicine, Kotelawala Defence University, Sri Lanka *chandimakumara007@gmail.com

Ischemic Heart Disease (IHD) has been classified as one of the major cardiovascular diseases in the world and it has become the main cause of death in Sri Lanka. Medication adherence is defined as the level to which the client's behaviour complies with the established endorsements from a health care professional. Poor medication adherence to IHD is related to increased re-hospitalization and mortality and continuous assessment of medication adherence is extremely important among these patients. Morisky Green Levine Medication Adherence Scale is a medication adherence tool comprised of four items with yes/no response which results in a score ranging from 0 to 4. The study aim was to translate Morisky Green Levine Medication Adherence Scale into Sinhala and cross-culturally adapt it to the Sri Lankan setting. Translation, back translation, and pretest were conducted prior to a Delphi process which assessed the content and consensual validity of the scale. The Delphi process included two consultant physicians, a cardiologist, a clinical psychologist, and a registered pharmacist. In consensual validity, each item was rated, on a scale of O(total disagreement) to 9(total agreement) (i) if its conceptual meaning was retained after translation, (ii) if it was appropriate to be used with IHD patients, and (iii) if it was culturally relevant to Sri Lanka. For content validity, each item was rated on a scale of 0 to 9 (i) if each item was an appropriate indicator of its scale, and (ii) if the composite of items was adequate to measure medication adherence. The ratings received from stage one were listed and resent for a second round and the re-ratings were evaluated for the degree of consensus. Items for this Medication Adherence Scale's Sinhala version were chosen based on the following criteria: (i) the item was reworded or removed if 70% or more of the re-ratings were in category 0-3. If reworded, the Delphi Process was repeated for that item, and (ii) the item was kept with no change if 70% or more of the re-ratings were in categories of 4-6 and 7-9. No items were removed from the original scale and some items were reworded according to suggestions made by the experts to retain the conceptual meaning when translated into Sinhala. The Sinhala version of the Morisky Green Levine Medication Adherence Scale can be used in research, medication adherence evaluations and IHD preventive programmes in Sri Lankan setting with confidence.

Keywords: Medication adherence, Ischemic Heart Disease, Morisky Green Levine Medication Adherence Scale