

**THESIS**

**DEVELOPMENT AND VALIDATION OF A TOOL TO  
PREDICT INFORMATION SEEKING BEHAVIOUR OF  
MEDICAL UNDERGRADUATES, SRI LANKA**

Submitted by

M. P. L. R. Marasinghe

FGS/05/PHD/17/2017/11

A thesis submitted to the Faculty of Graduate Studies, University of Kelaniya


in fulfillment of the requirements for the degree of

Doctor of Philosophy in Medical Education



May 2022

This thesis has been accepted by the University of Kelaniya for the award of the Degree of Doctor of Philosophy (~~2023~~) It is not allowed to publish this as a thesis accepted for the Degree of Doctor of Philosophy without the authority of the University

  
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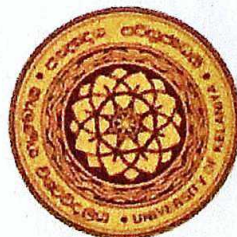
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May 2022

## DECLARATION


I declare that the work embodied in the thesis is my own and has not been submitted for any degree in this university or any other institute and, to the best of my knowledge and belief, it does not contain any material previously published or written or orally communicated by another person except, where due reference is made in the text.

.....  


Signature of the candidate

To the best of our knowledge, the above particulars are correct.

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**Dedicated to my parents, family and teachers**

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## V. LIST OF ABBREVIATIONS

ISB	Information Seeking Behaviour
IBM	Integrated Behaviour Model
TRA	Theory of Reasoned Action
TPB	Theory of Planned Behaviour
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
$\chi^2$	chi-square test
RMSEA	Root Mean Square Error of Approximation
SRMR	Standardized Root Mean Square Residual
TLI	Tucker-Lewis Index
CFI	Comparative Fit Index
AIC	Akaike Information Criterion
BIC	Schwarz's Bayesian Information Criterion
FGD	Focus group discussion
CFGD1	Focus group discussion, Group 1, University of Colombo
CFGD2	Focus group discussion, Group 2, University of Colombo
KFGD1	Focus group discussion, Group 1, University of Kelaniya
KFGD2	Focus group discussion, Group 2, University of Kelaniya
PFGD1	Focus group discussion, Group 1, University of Peradeniya
PFGD2	Focus group discussion, Group 2, University of Peradeniya
EFGD1	Focus group discussion, Group 1, Eastern University
EFGD2	Focus group discussion, Group 2, Eastern University
EFGD3	Focus group discussion, Group 3, Eastern University

UoC	University of Colombo
UoE	Eastern University of Sri Lanka
UoK	University of Kelaniya
UoP	University of Peradeniya
N	Sample
SD	Standard Deviation
ANOVA	Analysis of Variance
F	The test statistic of Levene's test
Sig.	The p-value corresponding to this test statistic
T	The computed test statistic
df	The degrees of freedom
Sig (2-tailed)	The p-value corresponding to the given test statistic and degrees of freedom
KMISB	Kelaniya Measure of Information Seeking Behaviour

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## VII. ABSTRACT

Information seeking behaviour is a set of actions expressing information needs, searching, evaluating, selecting, and utilizing information. This study aimed to develop and validate a tool to measure the information seeking behaviour of medical undergraduates in Sri Lanka. Final year students and the students, who had completed four years of study in the academic programme in medical faculties in universities of Colombo, Kelaniya, Peradeniya, and Eastern University in Sri Lanka were invited for the study. The elements of information seeking behaviour were defined by thematically analyzing the content of nine focus group discussions with medical undergraduates of the four faculties. The scale was developed based on the Integrated Behavioural Model. The preliminary scale had 60 items and was pretested. The responses of a field test with the participation of 436 medical undergraduates were subjected to confirmatory factor analysis (CFA) and psychometric analysis. The tool was refined to include 40 items, and the revised version was administered to 645 medical undergraduates. The 40-item tool supported the good model fit using the absolute fit indices (RMSEA= 0.053, SRMR=0.066). The sub-components of the 40-item tool partially matched with the theoretical framework. The reliability of the entire tool was acceptable (Cronbach's  $\alpha = 0.744$ ) and domain levels were in the low to the acceptable range. The internal consistency of the domains; "Intention" (Cronbach's  $\alpha = 0.634$ ), "Habit" (Cronbach's  $\alpha = 0.561$ ) and "Knowledge & skills" (Cronbach's  $\alpha = 0.540$ ) was acceptable in reliability and the domains of "Environmental Constraints" (Cronbach's  $\alpha = 0.470$ ) and "Salience" (Cronbach's  $\alpha = 0.438$ ) was low in reliability in the 40-item tool. The finalized 40-item tool named '**Kelaniya Measure of Information Seeking Behaviour**' (KMISB) demonstrated an acceptable level of psychometric rigour in terms of

reliability and structural validity. KMISB can be used to evaluate and predict information seeking behaviour of medical undergraduates effectively. It facilitates identifying the best practices of information seeking and improving the quality of higher education.

***Keywords:*** Information seeking behaviour, Integrated behavioural model, Medical undergraduates, Higher education, Tool development, Kelaniya Measure of Information Seeking Behaviour (KMISB)