

**DEVELOPMENT OF FOOD POISONING PREVENTION
MODULE IN IMPROVING CONSUMER'S KNOWLEDGE,
ATTITUDE AND RISK PERCEPTION ON FOOD POISONING
PREVENTION**

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UNIVERSITI SAINS ISLAM MALAYSIA

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PREVENTION**

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Thesis submitted in fulfillment for the degree of
DOCTOR OF PHILOSOPHY IN MEDICAL SCIENCE

UNIVERSITI SAINS ISLAM MALAYSIA

2022

AUTHOR DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

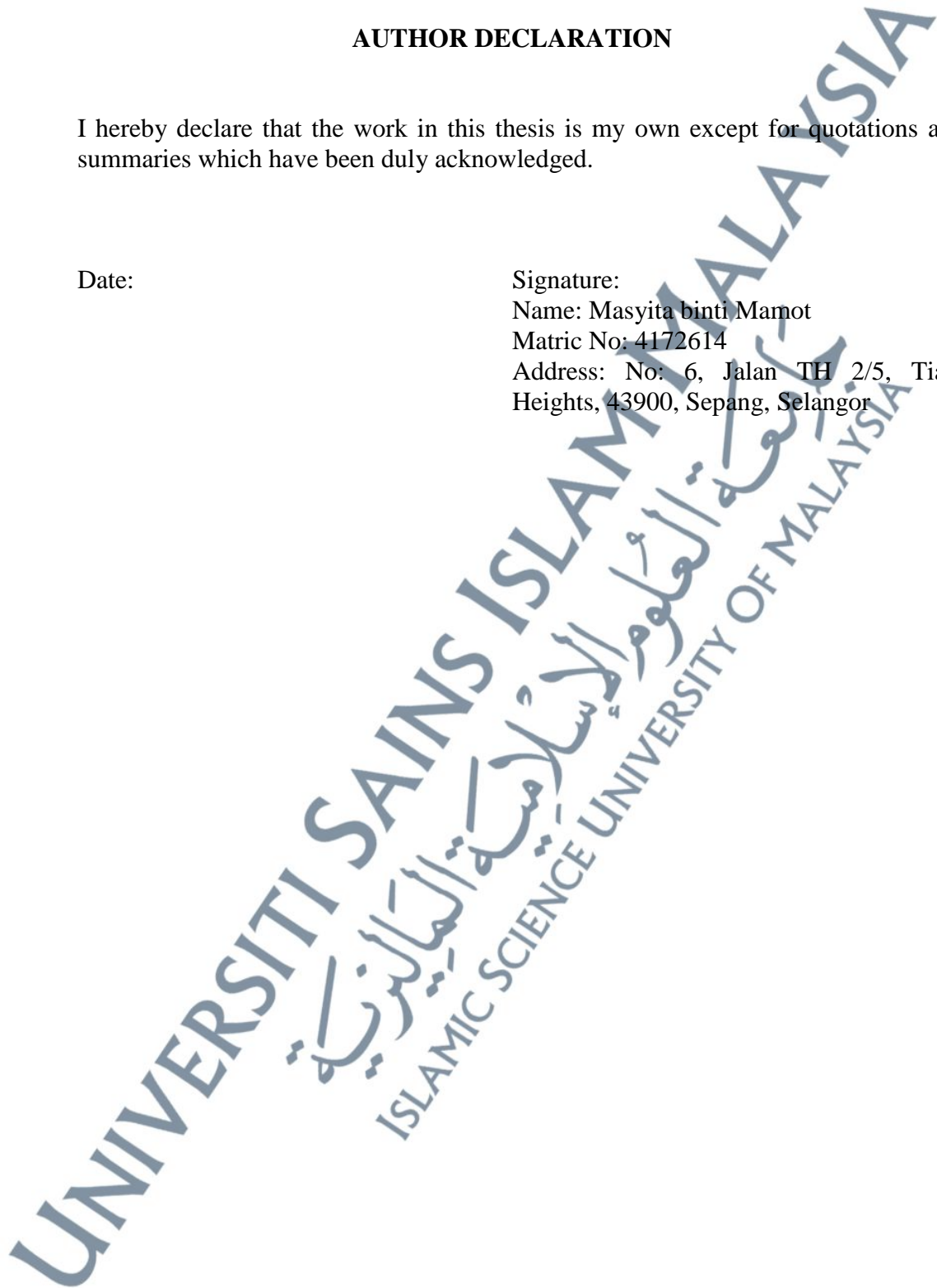
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ACKNOWLEDGEMENTS

In the name of Allah, the most merciful and compassionate. All praises to Him and my grateful to Allah for His guidance and presence during my ups and down in my PhD journey. I would like to express my sincere gratitude to my respectful supervisor, Associate Professor Dr. Nurul Azmawati Mohamed for her trust and continuous support along the research journey. Her insightful suggestion and encouragement are most appreciated.

Not to forget, my respective thesis committee: Associate Professor Dr. Mohd Dzulkhairi bin Mohd Rani, Dr Shalinawati binti Ramli and Professor Dr. Rukman bin Awang Hamat for their valuable opinions and financial assistance from the MRUN grant. It helps me to see research in different perspectives and appreciate the research processes.

In addition, my personal gratitude to Dr Nizam bin Baharom who provided the fundamental guidance in statistical analysis, as well as morale support. Without this, it would be impossible to gain confidence and continue the research process.

To my colleagues especially Mrs Muslimah Ithnin and Mrs Lailatul Hazliza for whom their motivational words keep me through this challenging journey, thank you so much. Your laughter and jokes each time we met during this PhD journey will always be cherished.

Last but not least, to the most important person in my life; my father and mother. Thank you for your endless prayers and support. Thank you so much for looking after the children while I was out for data collection. My dearest husband and children, this gratitude goes to them as well for their understanding, precious time spent during my tight schedule and encouragement when I need the most.

ABSTRAK

Keracunan makanan telah dikenal pasti sebagai salah satu kebimbangan kesihatan awam. Pertubuhan Kesihatan Sedunia (WHO) rantau Asia Tenggara mencatatkan magnitud beban akibat keracunan makanan kedua tertinggi selepas Afrika dengan kematian melebihi 175 000. Akibat pengulangan wabak keracunan makanan dilaporkan sejak kebelakangan ini, pendidikan pencegahan keracunan makanan harus dititikberatkan berbanding penyakit lain seperti penyakit bawaan makanan dan air. Modul pendidikan pencegahan keracunan makanan dibangunkan bersandarkan kepada pendekatan Kajian Rekabentuk dan Pembangunan yang mempunyai tiga fasa iaitu: Analisis Keperluan (Fasa 1); Rekabentuk dan Pembangunan (Fasa 2) dan Pelaksanaan dan Penilaian (Fasa 3). Kajian tinjauan dijalankan di dalam Fasa 1 melibatkan 430 pengguna di sekitar Ampang Jaya menggunakan soalselidik berstruktur. Rekabentuk dan pembangunan modul di dalam Fasa 2 pula dilaksanakan menggunakan kajian literatur dan analisis dokumen. Kesahan muka dan kandungan modul dinilai oleh pakar bidang. Kebolehgunaan modul telah diuji di dalam Fasa 3 menggunakan kaedah kajian eksperimen pra dan pasca bagi menentukan keberkesanan modul manakala maklumbalas daripada pengguna dan kakitangan kesihatan dikumpulkan bagi mengenalpasti kegunaan modul. Dapatan kajian dalam Fasa 1 menunjukkan bahawa masih terdapat peratusan di responden berada pada tahap kurang pengetahuan (23%), sikap (14%), tingkahlaku pencegahan (8%) serta persepsi risiko (36%) terhadap pencegahan keracunan makanan. Dapatan daripada Fasa 1 ini diperkukuhkan dengan beberapa cabaran pendidikan pencegahan keracunan makanan yang dilaporkan oleh pakar seperti sikap tidak endah pengendali makanan dan pengguna terhadap keselamatan serta keberkesanan modul pendidikan keselamatan makanan sedia ada yang tidak diukur secara empirikal. Dalam Fasa 2 pula, validasi pakar melaporkan bahawa elemen – elemen modul yang dibangunkan adalah boleh diterima (koefisien validasi >0.7.) Keberkesanan modul telah diuji pada Fasa 3 dan terdapat peningkatan yang signifikan bagi skor pengetahuan di dalam kedua-dua kumpulan intervensi serta kumpulan kawalan selepas 4 minggu intervensi ($t(29) = 9.95, p = <0.001, d = 1.82$ dan $t(29) = 20.76, p = <0.001, d = 3.79$ masing-masing). Skor sikap meningkat secara signifikan dari 57.47 (9.28) ke 61.97 (10.0) di dalam kumpulan intervensi selepas 4 minggu pelaksanaan modul ($p = 0.019$). Kajian ini bertindak sebagai satu platform untuk meneroka kepercayaan kesihatan serta pengetahuan berkaitan pencegahan keracunan makanan di kalangan pengguna yang sangat penting dalam pembinaan modul pencegahan keracunan makanan yang efektif. Modul ini berpotensi digunakan oleh pendidik kesihatan dalam menyampaikan serta memperkasakan komuniti untuk memilih makanan yang selamat dan premis makan yang bersih bagi mencegah pengulangan kes keracunan makanan di Malaysia.

Kata kunci: Keracunan makanan, modul pendidikan pencegahan keracunan makanan, pengguna.

ABSTRACT

Food poisoning has been regarded as an important public health concern. The World Health Organization Southeast Asia region was identified as the second highest food poisoning magnitude burden after the Africa region with 175 000 death reported annually. As repeated outbreaks related to food poisoning have been documented recently, focus on the food poisoning education need to be prioritized as compared to other food and waterborne diseases. The development of food poisoning prevention educational module is based on Design and Development Research (DDR) approach that consist of three phases namely: Need Analysis (Phase 1); Design and Development (Phase 2) and Implementation and Evaluation (Phase 3). Observational study was conducted in Phase 1 among 430 consumers in Ampang Jaya using constructed questionnaire. In Phase 2, the design and development of the module was conducted using literature review and document analysis. Face and content validation were ascertained by field experts. The usability of the module was tested in Phase 3 that employed pre and post experimental study for effectiveness whilst feedback from consumers and health staff was gathered to evaluate the usefulness of the module. Finding from Phase 1 showed that there are percentages of respondents with low level of knowledge (23%), attitude (14%), preventive behavior (8%) and risk perception (36%) on food poisoning prevention. This finding was supported by a few challenges in food poisoning prevention education reported by the experts that include the poor attitude of food handler and consumers on food safety as well as a need on empirical research on existing food safety education module. In addition, the experts reported that the module elements developed in Phase 2 were acceptable (coefficient validity > 0.7). The module efficiency was tested and there was a significant increase of knowledge scores in both intervention and control group after 4 weeks' intervention ($t(29) = 9.95, p = <0.001, d = 1.82$ and $t(29) = 20.76, p = <0.001, d = 3.79$ respectively). The attitude scores increased significantly from 57.47 (9.28) to 61.97 (10.0) in the intervention group after 4 weeks of module implementation ($p = 0.019$). This study serves as platform in exploring consumer's health belief as well as knowledge of food poisoning prevention that are crucial in constructing an effective food poisoning prevention module. The module can be a potential tool for the health educators in disseminating and empower the community on selecting a safe food and clean food premise in order to prevent the recurrence of food poisoning in Malaysia.

Keywords: Food poisoning; Food poisoning prevention educational module; consumer

الملخص

ثبید ایقیر فآ تقطنم دعبی ناذغلا ممستلا عب عی لعا ی ناذ اهنأ ی لعا ایسا قرش بونجی فی تمیلا عا تمحصلا ی ناذغلا ممستلا بقلعتملا قررکتما تایشافلا قیثونلا ارظن . آیونسد قافو قلماد 175000 ن ع غلابلا مآ ضار ملاو یرخلأ قیدغلاب نراقم ی ناذغلا ممستلا ی لعا زیکر تلا قیولولأ اعطاع بجدی ، ارخوم میمصتلا بجهذ ی لعا ی ناذغلا ممستلا ن تمیاقوللا تمیملعتلا ءدحولا ریوطت دمتعی . مایملا قیرطن ع قلو قنملا میمصتلا ؛ (1 قلمر ملا) قجالحا لیلحت : ی هو لحارم ثلاث ن م نوکتی ی ذلا (DDR) ریوطتلاو ی لولأ قلمر ملا فی قیدصر قسارد تیرجا . (3 قلمر ملا) میققتلاو ذیفنتلاو (2 قلمر ملا) ریوطتلاو ریوطتو میمصت مآ ، قیناتلا قلمر ملا فی . هواسنأ مآ ن ایبتسا مادختسا ایاج بجانمأ فی فاکلھتسم 430 نیب ءار بخل بق ن م یوتحملو ہجولا قحصن مق قحتلا مآ . قناتولا لیلحتو تاییدلأ قعجارم مادختسا ءدحولا دعبو لبق قیبیرجت قسارد تم دختسا ی تلا 3 قلمر ملا فی ءدحولا مادختسا قیلباق رابتخا مآ . نیبیدایم ترهظأ . ءدحولا ءدئاف میققتل نیبحصلا نیفظوملاو نیکلھتسملا ن م تاقیلعتلا عمج مآ نیب فی قیلعظلا 23%) قفر عملان م ض قخنملا یوتسملا یو ذ نیببجتسملا ن م آبسذ کانه ن ی لولأ قلمر ملا ن م قجاتلا ممستلا ن م قیاقوللا ن آشب (36%) رطاخلما کارد او (8%) ی ناقولا کولسلاو ، (14%) فقوملاو ، () ی تلا ی ناذغلا ممستلا ن م قیاقوللا فی ققتلا ی فی تایدحتلا ض عب ل لاخن م قجیتلا هذھ معد مآ دقو . ی ناذغلا کاذکو ءاذغلا قملاسن آشیر نیکلھتسملاو قیدغلاب قجلا عمل فی بعضلا فقوملا قمشتی تلاو ءار بخل اھذع غلبأ ءار بخل دافأ ، کاذ ی ل قفاضلاب . ءوجوملا ءاذغلا قملاس میلعت ءدحو لود ی بیرجتلا ثحبلا ی ل قجالحا رابتخا مآ . (0.7 > ل ماعم قیحصلا) قلوبقم تناک 2 قلمر ملا فی فاھریوطت مآ ی تلا ءدحولا رصادع ن 4 دعب مکحتلا عومجمو ل خدنلا ن م لک فی قفر عمل تاجرد فی قریبک ءدایز کانه تناکو ءدحولا ءافک $t(29) = 20.76$ ، $p < 0.001$ ، $d = 1.82$ و $t(29) = 9.95$ ، $p < 0.001$ ، $d = 3.79$) ی لاوتلا ی لعا (ی لاوتلا ی لعا (9.28) 57.47 ن م ظو حلم ل کشب فقوملا تاجرد تدار . (ی لاوتلا ی لعا (10.0) 61.97 مآ ممستلا ن م قیاقوللا قفر عم ی ل قفاضلاب کلهتسملا قیحصلا تادقتعلا فاشکتسلا قصنمک قسار دلا ءادأ ءدحولا نوکت ن آن کم ی ناذغلا ممستلا ن م قیاقوللا قلعف ءدحو ءانب فی قمسار ربعت ی تلا ی ناذغلا لجان م فیظنلا ءاذغلاو ماعطلل ن م آن کم رابتخا ن م عمجتلا نیکمتو رشذ فی قحصلا ی ملعلما قلمتحم ایزیلام فی ی ناذغلا ممستلا رارکت عنم

الكلمات المفتاحية: تسمم غذائي. وحدة تعليمية للوقاية من التسمم الغذائي ؛ مستهلك

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LIST OF ABBREVIATIONS

CAC	Codex Alimentarius Commission
CDC	Centers for Disease Control and Prevention
CDCIS	Communicable Diseases Control Information System
DALY	Disability Adjusted Life Years
DDR	Design and Development Research
EIP	Epidemiology Intelligence Programme
FAO	Food Agriculture Organization
FOSIM	Food Safety Information System of Malaysia
FSQD	Food Quality and Safety Division
HAPA	Health Action Process Approach
HBM	Health Belief Model
INFOSAN	International Network of Food Safety Authorities
KOSPEN	<i>Komuniti Sihat Pembina Negara</i>
LMIC	Low- and Middle- Income Countries
MOH	Ministry of Health
PLS-SEM	Partial Least Square Structural Equation Modelling
RCT	Randomised Controlled Trial
SIM	Sequential Iterative Model
SPSS	Statistical Package for Social Sciences
SST	'See, Select, Tell'
TPB	Theory of Planned Behavior
VIF	Variance Inflation Factors
WHO	World Health Organization