



DATED THIS 26th DAY OF AUGUST, 2023

BETWEEN

**MAHSA UNIVERSITY, MALAYSIA
DU044 (B)**

AND

**INSTITUT ILMU KESEHATAN
BHAKTI WIYATA KEDIRI, INDONESIA
20541673**

MEMORANDUM OF UNDERSTANDING

This **MEMORANDUM OF UNDERSTANDING** is made on the 26th day of August, 2023

BETWEEN

MAHSA UNIVERSITY, MALAYSIA (Ministry of Higher Education Registration Certificate No. DU044 (B)), of which Malaysian Allied Health Sciences Academy Sdn Bhd (Company Registration No. 200401016011 / 654514-M) is the registered owner; and having its business address at Jalan SP 2, Bandar Saujana Putra, 42610 Jenjarom, Selangor Darul Ehsan, Malaysia (hereinafter referred to as the **"MU"**) of the one part;

AND

INSTITUT ILMU KESEHATAN BHAKTI WIYATA KEDIRI, INDONESIA (Nomor Pokok Sekolah Nasional: 20541673) and having its business address at Jl. KH Wachid Hasyim No.65, Bandar Lor, Kec. Mojoroto, Kota Kediri, Indonesia (hereinafter referred to as **"IIKBWK"**) of the other part;

whom hereinafter MU and IIKBWK are collectively referred to as **"Parties"** and individually as a **"Party"**; and this Memorandum of Understanding is referred to as this **"Memorandum"**.

WHEREAS -

- A. MU is a private higher educational institution established under Private Higher Education Institution Act 1996 which offers various study programmes in the fields of Medicine, Dentistry, Pharmacy, Health Sciences, Nursing, Business, Finance, Hospitality Management, Information Technology, and Engineering at the Foundation, Diploma, Degree, Masters, and Doctoral levels. MU is also a member of the MAHSA Group of Companies.
- B. IIKBWK is a private higher educational institution established with approval from Minister of Education and Culture, Research and Technology Republic of Indonesia that offers various study programmes in the fields of Nursing, Midwifery, Nutrition, Psychology, Traditional Chinese Medicine and Physiotherapy at the Professional Certificate, Diploma and Degree Level.
- C. Parties recognise their mutual interests and are desirous to collaborate with each other in an effort to pursue the objectives and benefits of their collaboration, which are more particularly described in Clause 2 below (**"Proposed Collaboration"**).
- D. Pursuant thereto, the Parties have agreed to enter into this Memorandum to record their respective commitments; and establish the basis for implementing new collaboration in the areas and manner as stated herein.
- E. The Parties hereby agree for the purposes of, and upon the terms and conditions set out in this Memorandum, to observe good faith towards one another in all matters affecting their dealings hereunder and interests herein.

NOW IT IS HEREBY AGREED as follows:

1. The Memorandum

- 1.1 The Proposed Collaboration of this Memorandum is as stated in Clause 2 herein.
- 1.2 Each Party represents to the other that this Memorandum does not constitute an obligation binding on either Party, with the exception of Clauses 3, 4, 6 and 14 herein.
- 1.3 Upon execution of this Memorandum, each Party agrees to provide to the other Party such information, confirmations and documents to enable the other Party, its representatives, advisers, consultants and agents, to evaluate and consider the manner of implementation of the Proposed Collaboration.
- 1.4 For the avoidance of doubt and without limiting the above in any way, this Memorandum creates no rights in favour of either Party.

2. Proposed Collaboration

- 2.1 The objective of this Memorandum is for Parties to develop co-operation and promote mutual agreement and excellence in potential projects, future co-operation, and knowledge exchange between the Parties.
- 2.2 In furtherance of this objective, the Parties agree to develop the following activities in collaboration in areas of mutual interests:
 - 2.2.1 to identify opportunities to collaborate in curriculum and practical development;
 - 2.2.2 to facilitate improvement and development of education and training in the health sector;
 - 2.2.3 to identify opportunities for academic implementation in the fields of Nursing/ Midwifery/ Pharmacy, or other related health fields;
 - 2.2.4 to facilitate exchange of students, administrative staff, academic activities, and information;
 - 2.2.5 to identify opportunities for collaboration in the field of research, joint activities, international activities, publications, seminars, academic activities, and implementation of educational programs;
 - 2.2.6 to facilitate the registration of degree programs and non-degree certificate programs and undergraduate short-term academic programs; and
 - 2.2.7 to identify opportunities of awarding of Bachelor's degree in Nursing / Midwifery / Pharmacy or other related allied health courses by MU to

the IIKBWK's students who successfully obtained a diploma / degree and to further their studies at MU in bachelor degree.

- 2.3 The development and implementation of specific activities developed under this Memorandum will be subjected to the respective formal written agreement negotiated and entered into separately, which will include but not limited to the financial arrangements, confidentiality, ownership and use of intellectual property, publication of articles or other work and other relevant matters.
- 2.4 The implementation of the Proposed Collaboration hereof shall depend upon the availability of resources and financial support of the Parties.
- 2.5 The Parties acknowledge the need to promote the programmes and activities pursuant to this Memorandum and hereby agree to use promotional materials which shall be approved by Parties.
- 2.6 The Parties agree that their respective employees and students who are engaged in the programmes and activities under this Memorandum shall carry out the programmes and activities in accordance with the applicable laws and regulations.
- 2.7 The Parties hereby agree that as to ensure on the success of the Proposed Collaboration, the roles and obligations of the Parties shall be more properly described and attached as an addendum to this Memorandum under **Annexure A** (hereinafter collectively referred to as "**Roles and Obligations of Parties**"), if applicable.

3. Confidentiality

3.1 Confidential Information

- 3.1.1 "**Confidential Information**" shall mean information (whether transmitted orally, in writing, electronically or in other form) relating to a Party's business, property and assets that is non-public or proprietary, and/or information which by their nature, or by the circumstances of their disclosure are or could reasonably be expected to be regarded as confidential to a Party or to any third party with whose consent or approval such information is used.
- 3.1.2 In no event shall any information constitute as Confidential Information hereunder –
 - 3.1.2.1 which was in the public domain prior to the date of this Memorandum;
 - 3.1.2.2 which becomes a part of the public domain following the date of this Memorandum not in any way caused by any act or omission of the Party receiving the information in breach of this Memorandum, or which becomes publicly available

other than as a result of a violation of any known confidentiality agreements; or

- 3.1.2.3 was within the possession of the Party receiving the information on a non-confidential basis from a source that is not bound, directly or indirectly, by a confidentiality agreement with the Party disclosing the information, prior to its being furnished.

3.2 Disclosure of Confidential Information

- 3.2.1 The Parties agree that the Confidential Information will be provided only to those of its officers, employees or advisers on a need -to- know basis (hereinafter referred to as “**Representatives**”) for purposes of this Memorandum and shall procure their respective Representatives’ compliance to Clause 3 herein.

- 3.2.2 The Confidential Information will be kept strictly confidential and each Party and its Representatives will not, directly or indirectly, at any time now or hereafter without the prior written consent of the other Party, disclose distribute, disseminate or supply to any person or authority (except as required by law in which event the Party disclosing or divulging Confidential Information must first notify the other Party in writing with details and evidence of the legal requirement) in any place and in whatever manner.

3.3 Use of Confidential Information

The Parties agree that the Confidential Information will be used only for the purposes of this Memorandum.

3.4 Return of Confidential Information

Immediately upon request by a Party all Confidential Information in whatever form will be returned to the Party that provided such Confidential Information and all documents and any data containing the Confidential Information will be destroyed (subject, however, to the inability to destroy data contained in routine computer backup systems).

3.5 Term of Confidentiality

The obligations under Clause 3 shall be binding upon Parties and cease to have any force and effect after five (5) years from the date of termination or expiry of this Memorandum. The confidentiality obligation for trade secrets shall survive the termination of this Memorandum.

4. Personal Data Protection

- 4.1 Both Parties hereby agree and undertake to each other:

- 4.1.1 that any personal data collected by the other Party including but not limited to the personal data of either Party's employees, students and clients (hereafter be referred to as "**Personal Data**"), such Personal Data must not be used for any other purposes other than for the purposes of this Memorandum;
 - 4.1.2 not to transfer any Personal Data to any third-party without the consent from the owner of the Personal Data;
 - 4.1.3 to take responsible measures to ensure that the Personal Data will be kept confidential, including not to sub-license, distribute, disclose, transfer or declare a trust of its rights in any of the Personal Data, in whole or in part, to any third party, without the express written consent of the other Party and any attempt to assign, transfer, sub-license or declare a trust of its rights without such consent shall render such assignment, transfer or sub-license, or declaration void and shall be construed as a breach of this Memorandum; and
 - 4.1.4 to comply with all rules, guidelines or regulations imposed by both Parties relating to personal data and also all applicable data protection laws in Malaysia under the Personal Data Protection Act 2010.
- 4.2 The obligation under this Clause 4 shall survive and shall be enforceable beyond the termination or expiry of this Memorandum.

5. Duration and Termination

5.1 Duration

This Memorandum and all rights and obligations hereunder shall take effect from the date of this Memorandum hereof for a period of five (5) years. Each Party shall review the status of the Memorandum at least six (6) months before the end of the five-year period to determine whether it wishes to continue and, if so, whether any modifications are required. The period of validity of this Memorandum may only be extended by the mutual written consent of both Parties.

5.2 Termination

If a Party decides that for whatsoever reason, it wishes to withdraw from this Memorandum, it may so withdraw and terminate this Memorandum by giving the other Party three (3) months' notice in writing of its intention to withdraw, in which case the withdrawing Party shall thereupon cease to participate in the execution of the Proposed Collaboration and shall have no liability for the subsequent actions of the other Party.

5.3 Survival of Obligations

The termination of this Memorandum does not affect:

- 5.3.1 any obligation of that Party which accrued prior to termination and which remain unsatisfied; and
- 5.3.2 any provision of this Memorandum which is expressed as continuing in effect after termination.

6. Intellectual Property Rights

- 6.1 Neither Party shall use the other Party's logo or other trademarks or make public or make any reference to the other Party in any of the Party's proposal, advertising activities, marketing materials, brochures or similar documents without the prior written consent of the other Party.
- 6.2 The Parties hereby agree that to the extent permitted under any applicable laws and regulations, ownership of intellectual property rights of any proprietary information or data, computer system or database invented, developed, created or discovered solely and separately by either Party or obtained through the sole and separate effort of either Party, shall be solely owned by the Party concerned.
- 6.3 The Parties hereby agree that to the extent permitted under any applicable laws and regulations, ownership of intellectual property rights of any proprietary information, system or database invented, developed, created or discovered jointly by the Parties or obtained through the joint activity effort, shall be owned by the Parties jointly and subjected to the terms and conditions mutually agreed upon in a separate agreement pertaining to ownership of joint intellectual property rights.
- 6.4 Either Party may transfer or assign its title or interest in whole or in part, in the intellectual property rights covered by this Memorandum to the other Party whereby such transfer or assignment must be in writing and shall be effective only upon the written acceptance of the other Party.

7. Force majeure

Neither Party shall be liable to the other Party in respect of any delay in performing or failure to perform any of its obligations hereunder if such delay or failure results from acts or intervention of Government or Government agencies; fire, flood or explosion; Act of God; declared or undeclared war, or riots or civil commotion; strikes or other industrial disputes; local and / or global pandemic; or any cause outside its reasonable control.

8. Assignment

Neither Party will be entitled to assign all or any part of its rights and obligations hereunder without the prior written consent of the other Party, with the exception of an assignment to any other company in the group of companies to which the assigning Party belongs to. The aforesaid consent shall not be unreasonably withheld or delayed and, in any event, shall be given unless the other Party, acting reasonably and in good faith, objects to the identity and/or involvement of the proposed assignee as being contrary to its commercial and/or business interests.

9. Publicity

- 9.1 Neither Party shall for publicity purposes make use of the name, or of any trade name or trademark, of the other Party, or of any information obtained under or in connection with this Memorandum from the other Party, without the prior written consent of the other Party.
- 9.2 Neither Party shall issue any publicity or other announcement in relation to this Memorandum and the Proposed Collaboration (whether transmitted orally, in writing, electronically or in other form, including but not limited to press releases and/or announcements) without the prior written approval of the other Party of the form and content thereof, which approval shall not be unreasonably withheld or delayed.

10. Notice

- 10.1 Any notice or communication which a Party is required or authorised by this Memorandum to serve on the other Party, shall be sufficiently served if sent to the other Party at the address specified below:

- 10.1.1 by hand; or
10.1.2 by registered post or recorded delivery; or
10.1.3 by electronic mail confirmed by receipt of such communication.

(i) to MU

Address : MAHSA University,
Jalan SP2, Bandar Saujana Putra,
Jenjarum, 42610 Selangor, Malaysia

Contact : Prof. Zahrah Binti Saad
Person

Email : zahrah@mahsa.edu.my

Attention : Director, International Relations

(ii) to IIKBWK

Address : Jl. KH Wachid Hasyim No.65, Bandar Lor,
Kec. Mojoroto, Kota Kediri, Indonesia

Contact : Prof. Dr. apt. Muhamad Zainuddin
Person

Email : pkhm@iik.ac.id

Attention : Rector

- 10.2 Notices sent by registered post or recorded delivery shall be deemed to have been served three (3) days following the date of posting if local address and seven (10) days following the date of posting if oversea address. Notices sent by electronic mail where such is an established means of communication between the Parties shall be deemed to have been served on the day of transmission, if transmitted before 16:00 hours (in the receiving parties' transmission) on a working day but otherwise on the next working day. In all other cases, notices and other communications will be deemed to have been served on the day they were received which is deemed to be on the same day that it was sent out and / or instantaneously.

11. Entire Agreement and Non-Waiver

- 11.1 This Memorandum supersedes and invalidates all other commitments, representations and warranties relating to the subject matter hereof which may have been made by the Parties either orally or in writing prior to the date hereof, and which shall become null and void from the date this Memorandum is signed. Each Party warrants and represents to the other that it has not relied on any such commitment, representation, or warranty in entering into this Memorandum. Nothing in this clause shall limit or exclude any liability for fraud. Any amendment to this Memorandum (to be effective), must be in writing and signed by an authorised representative of each Party.
- 11.2 The failure of a Party to insist in any one or more instances upon the performance of any provisions of this Memorandum shall not be construed as a waiver or relinquishment of that Party's right to future performance of such provisions and the other Party's obligation in respect of such future performance shall continue in full force and effect.

12. Costs

Each Party shall be responsible for its own costs in connection with the negotiation and preparation of this Memorandum. The stamp duty levied by the relevant authority in connection with the stamping of this Memorandum shall be borne by MU.

13. Governing Law

- 13.1 The interpretation, construction and performance of this Memorandum, and any non-contractual obligations arising under it, shall be governed exclusively by Malaysian and Indonesian laws and the Parties expressly submit to the exclusive jurisdiction of the Asian International Arbitration Centre (AIAC).
- 13.2 Any reference to a statutory provision shall include that provision as from time to time modified or re-enacted whether before or after the date of this Memorandum so far as such modification or re-enactment applies or is capable of applying to any transactions entered into prior to this Memorandum and (so far as any liability thereunder may exist or can arise) shall include also any past statutory provision (as from time to time modified or re-enacted) which such provision has directly or indirectly replaced.

14. Liability and Indemnity

- 14.1 Parties shall accept liability to pay damages for actual losses and liabilities including costs arising as a direct result of breach of confidentiality (as per Clause 3 herein), infringements of Parties' intellectual property rights (as per Clause 6 herein) and any conduct in violation of the Personal Data Protection Act 2010 (as per Clause 4 herein).
- 14.2 This provision shall survive and continue for so long as it is necessary to give its full effect, notwithstanding any other provision in this Memorandum.

15. Others

- 15.1 The undersigned represent and warrant that they are authorised to and have full power to execute, be bound by, deliver and perform the terms and conditions of this Memorandum.
- 15.2 The parties agree that this Memorandum can be executed by electronic methods (whether by PDF scan, utilisation of an electronic signature platform or application) without the need for an exchange of physical hard copies and shall have the same effect, validity, enforceability, and admissibility as a physical signature to the fullest extent permitted by applicable laws. However, should there be a need to abide by the instructions of the Collector of the Inland Revenue Board of Malaysia upon submission of this Memorandum for stamping, Parties shall re-execute this Memorandum for the purpose of adhering to the Stamp Act 1949.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands the day and year first abovewritten.

Seal affixed and / or
signed by for and on behalf of
**MAHSA UNIVERSITY,
MALAYSIA
(DU044(B)),**
in the presence of

Professor Zahrah Saad
Director
International Relations
MAHSA University
Level 10, Unity Building,
Jalan SP2, Bandar Saujana Putra,
42610 Jenjarom, Kuala Langat, Selangor.

Name: Prof. Zahrah Binti Saad
Designation: Director, International Relations

Prof. Dato' Dr. Ikram S. Ismail FASc
Vice Chancellor
Chancellery
MAHSA University
Level 10, Unity Building,
Jalan SP 2, Bandar Saujana Putra,
42610 Jenjarom, Kuala Langat, Selangor.

Name: Professor Dato' Dr. Ikram Shah bin Ismail
Designation: Vice Chancellor

Seal affixed and / or
signed by for and on behalf of
**INSTITUT ILMU KESEHATAN
BHAKTI WIYATA KEDIRI,
INDONESIA
(20541673)**
in the presence of,



Name: Prof. Dr. apt. Muhamad Zainuddin
Designation: Rector

Name:
Designation:

DAPUR IBU SEBAGAI APOTEK KELUARGA:EDUKASI PENGENALAN OBAT TRADISIONAL PADA ANAK

Dyah Aryantini*¹, Lia Agustina¹, Ninis Yuliati¹, Zahrah Saad²

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Abstrak

Kearifan lokal masyarakat Melayu dalam memanfaatkan tanaman obat sebagai apotek keluarga semakin tergerus di kalangan generasi muda, termasuk pada anak berkebutuhan khusus yang memiliki akses terbatas terhadap edukasi kesehatan. Kegiatan pengabdian masyarakat ini bertujuan untuk meningkatkan pemahaman anak berkebutuhan khusus di Sekolah Menengah Kebangsaan Puchong Utama, Malaysia, tentang tanaman obat melalui konsep Dapur Ibu sebagai Apotek Keluarga. Kegiatan ini dirancang dengan metode penyuluhan interaktif dan partisipatif yang melibatkan siswa dalam pengalaman langsung mengenali bumbu dapur melalui berbagai Indera, melihat bentuk dan warna, meraba tekstur, mencium aroma, serta mencicipi rasa terhadap lima bumbu dapur berkhasiat obat (jahe, kunyit, serai, lengkuas, dan bawang putih). Pengukuran pemahaman dilakukan melalui kuesioner pre-test dan post-test yang diisi dengan pendampingan, menggunakan format sederhana dengan dukungan gambar dan emotikon. Hasil kegiatan menunjukkan peningkatan pemahaman peserta sebesar 37% (dari 41% menjadi 78%), dengan indikator keberhasilan meliputi kemampuan mengidentifikasi nama, ciri fisik, dan fungsi dasar tanaman obat. Kegiatan ini membuktikan bahwa pendekatan kontekstual berbasis dapur efektif untuk edukasi tanaman obat pada anak berkebutuhan khusus, sekaligus berkontribusi pada pelestarian kearifan lokal dan pencapaian SDGs dalam pendidikan inklusif berkualitas.

Kata kunci— anak berkebutuhan khusus, apotek keluarga, dapur ibu, edukasi kesehatan, tanaman obat

Abstract

The local wisdom of the Malay community in utilizing medicinal plants as a family pharmacy has been gradually eroding among the younger generation, including among children with special needs who have limited access to health education. This community service initiative aimed to enhance the understanding of medicinal plants among inclusive kids at Sekolah Menengah Kebangsaan Puchong, Malaysia, through the concept of The Mother's Kitchen as a Family Pharmacy. The activity was designed using interactive and participatory educational methods that engaged students in direct sensory experiences to recognize kitchen herbs through five senses, observing shape and color, feeling textures, smelling aromas, and tasting medicinal kitchen herbs (ginger, turmeric, lemongrass, galangal, and garlic). Comprehension was measured through pre-test and post-test questionnaires administered with assistance, utilizing a simplified format supported by images and emoticons. The results demonstrated a 37% increase in participant understanding (from 41% to 78%), with success indicators including the ability to identify the names, physical characteristics, and basic functions of medicinal plants. This initiative confirms that a kitchen-based contextual approach is effective for medicinal plant education among children with special needs, while simultaneously contributing to the preservation of local wisdom and the achievement of the SDGs regarding quality inclusive education.

Keywords: family pharmacy, inclusive kids, medicinal plants, mother's kitchen, health education

1. PENDAHULUAN

Organisasi Kesehatan Dunia (WHO) telah lama mendorong pemanfaatan tanaman obat dalam program Primary Health Care, terutama di negara berkembang, karena ketersediaannya yang melimpah, harga terjangkau, dan efek samping yang minimal jika digunakan dengan tepat [1]. Malaysia, dengan kekayaan biodiversitasnya, memiliki potensi besar dalam pengembangan tanaman obat, namun pengetahuan ini belum terintegrasi secara sistematis dalam kurikulum pendidikan, terutama untuk anak berkebutuhan khusus.

Namun demikian, modernisasi dan perubahan gaya hidup telah menggeser pola konsumsi masyarakat, termasuk di kalangan generasi muda [2]. Pengetahuan tentang tanaman obat dan khasiatnya semakin tergerus, terutama di kalangan anak-anak dan remaja [3]. Padahal, seperti yang diungkapkan oleh pemerhati tradisi, orang-orang tua dahulu meskipun usia hampir satu abad tetap sehat, mata cerah, tidak rabun, berbanding masyarakat zaman sekarang yang muda-muda lagi mempunyai darah tinggi, mata rabun, dan pelbagai penyakit.

Anak berkebutuhan khusus seringkali terpinggirkan dalam program-program edukasi kesehatan masyarakat. Padahal, mereka memiliki hak yang sama untuk memperoleh pengetahuan tentang hidup sehat dan kemandirian dalam merawat diri sendiri. Keterbatasan kognitif dan sensorik pada anak tuna grahita dan autisme memerlukan pendekatan pembelajaran yang dimodifikasi, dengan penekanan pada pengulangan, konkretisasi, dan pengalaman multisensorik [4]. Kegiatan mengenal bumbu dapur seperti jahe, kunyit, serai, lengkuas, dan bawang putih menawarkan kesempatan sempurna untuk pembelajaran semacam ini, karena bumbu-bumbu tersebut mudah ditemukan, aman, dan memiliki karakteristik sensorik yang khas. Konsep "Apotek Keluarga" yang diangkat dalam kegiatan edukasi ini berakar pada filosofi bahwa setiap rumah tangga seharusnya memiliki kemandirian dalam menangani masalah kesehatan ringan sebelum memutuskan untuk mencari bantuan medis profesional.

Sekolah Menengah Kebangsaan (SMK) Puchong Utama (1), Malaysia merupakan sekolah bagi anak berkebutuhan khusus atau dengan kemampuan intelektual di bawah rata-rata dan kesulitan dalam berkomunikasi. Oleh karena itu, perlu adanya pendekatan yang disesuaikan untuk memberikan informasi Kesehatan dengan memperhatikan kebutuhan khusus mereka. Pendidikan inklusif yang efektif harus mampu mengakomodasi keragaman kemampuan dan gaya belajar setiap anak [5], termasuk dalam hal pengenalan tanaman obat dan pola hidup sehat. Kegiatan ini digalang oleh Mahsa University, Malaysia Bersama Institut Ilmu Kesehatan Bhakta Wiyata Kediri ini sebagai bentuk implementasi kerja sama Bersama mitra internasional untuk menunjang pelaksanaan tridharma perguruan tinggi dan pencapaian indikator kinerja utama.

Kegiatan ini dirancang dengan metode partisipatif yang melibatkan siswa dalam pengalaman langsung mengenali bumbu dapur melalui panca Indera seperti melihat bentuk dan warna, meraba tekstur, mencium aroma, serta mencicipi rasa. Edukasi ini tidak hanya bertujuan mentransfer pengetahuan, tetapi juga membangun nilai-nilai kecintaan terhadap warisan budaya, kemandirian dalam menjaga kesehatan, serta apresiasi terhadap alam sekitar. Melalui keterlibatan aktif dalam kegiatan mengenal bumbu dapur, diharapkan siswa SMK Puchong Utama (1), Malaysia dapat mengembangkan rasa percaya diri dan keterampilan praktis yang berguna dalam kehidupan sehari-hari. Ibu sebagai figur sentral dalam keluarga menjadi mitra strategis dalam keberlanjutan program ini, karena merekalah yang akan mendampingi anak-anak mempraktikkan pengetahuan yang diperoleh di dapur rumah masing-masing. Hal ini tidak hanya memperkuat hubungan antara sekolah dan rumah, tetapi juga memastikan bahwa pengetahuan tradisional terus diwariskan kepada generasi muda.

Di Malaysia, meskipun kaya akan tradisi pengobatan herbal, masih terbatas program edukasi tanaman obat yang dirancang khusus untuk anak berkebutuhan khusus. Padahal, seperti yang ditunjukkan oleh berbagai praktek di negara lain, pendekatan yang tepat dapat membuka akses anak berkebutuhan khusus terhadap pengetahuan berharga ini. Sekolah Kebutuhan Khusus di Puchong memiliki peluang untuk menjadi pelopor dalam mengintegrasikan edukasi tanaman obat berbasis kearifan lokal ke dalam kurikulum mereka, dengan pendekatan yang disesuaikan dengan kebutuhan unik setiap anak. Kegiatan ini juga sejalan dengan Sustainable Development Goals (SDGs), khususnya tujuan ke-3 tentang kehidupan sehat dan kesejahteraan, serta tujuan ke-4 tentang pendidikan inklusif

dan berkualitas. Dengan menjangkau populasi yang sering terabaikan, program ini berkontribusi pada upaya mewujudkan masyarakat yang lebih adil dan berkeadaban.

2. METODE

A. Program Kegiatan Inti

Kegiatan pengabdian masyarakat ini berupa penyuluhan interaktif dan partisipatif tentang pengenalan tanaman obat melalui konsep "Dapur Ibu sebagai Apotek Keluarga". Program inti meliputi edukasi pengenalan tanaman obat melalui pendekatan multisensorik terhadap lima jenis bumbu dapur berkhasiat obat yaitu jahe (*Zingiber officinale*), kunyit (*Curcuma longa*), serai (*Cymbopogon citratus*), lengkuas (*Alpinia galanga*), dan bawang putih (*Allium sativum*). Kegiatan ini melibatkan eksplorasi panca indera yang mencakup pengamatan visual terhadap bentuk, warna, dan ukuran bumbu dapur, pengalaman melalui perabaan tekstur permukaan dan struktur fisik, melalui penciuman dan perbedaan aroma khas setiap tanaman, serta pengalaman melalui pencicipan [6]. Pengukuran pemahaman dilakukan melalui pengisian kuesioner pre-test dan post-test dengan format sederhana yang dilengkapi gambar dan emotikon untuk memudahkan pemahaman anak berkebutuhan khusus. Kuesioner terdiri dari 5 pertanyaan dengan nilai 1 untuk setiap jawaban yang benar, dan nol untuk jawaban salah. Persen pernyataan jawaban benar diperoleh dari jawaban yang benar dibagi jumlah pertanyaan, kemudian dikalikan dengan 100%. Adapun kategori pengetahuan dibagi menjadi 3 yakni, baik (rata-rata 76-100%), cukup (56-75%) dan kurang (<56%) [7].

B. Analisis Kebutuhan Program

Berdasarkan latar belakang yang telah dipaparkan, analisis kebutuhan program menunjukkan adanya kesenjangan pengetahuan yang signifikan, di mana minimnya pengetahuan siswa berkebutuhan khusus tentang tanaman obat di sekitar mereka tidak sebanding dengan kekayaan biodiversitas tanaman herbal yang dimiliki Malaysia. Program edukasi tanaman obat yang dirancang khusus untuk anak berkebutuhan khusus masih sangat terbatas di Malaysia, sehingga mereka memiliki akses yang rendah terhadap informasi kesehatan berbasis kearifan lokal.

C. Model atau Pendekatan yang Digunakan

Kegiatan ini menggunakan pendekatan multisensorik (*multisensory approach*) yang dikombinasikan dengan metode partisipatif (*participatory method*). Pengalaman langsung menjadi inti dari pendekatan ini, di mana siswa belajar dengan melakukan (*learning by doing*) melalui aktivitas menyentuh, mencium, melihat, dan merasakan langsung objek yang dipelajari.

D. Lokasi dan Sasaran Kegiatan

Kegiatan pengabdian masyarakat ini dilaksanakan di SMK Puchong Utama (1), Malaysia, yang merupakan sekolah bagi anak berkebutuhan khusus dengan karakteristik siswa tunagrahita dan autisme. Sasaran utama kegiatan adalah siswa berkebutuhan khusus yang memiliki kemampuan intelektual di bawah rata-rata dan kesulitan dalam berkomunikasi, sehingga memerlukan pendekatan pembelajaran yang disesuaikan dengan kondisi khusus mereka.

E. Peserta Yang Terlibat

Kegiatan ini melibatkan total 37 orang peserta yang terdiri dari 25 siswa berkebutuhan khusus SMK Puchong Utama (1) sebagai peserta utama kegiatan. Sebanyak 5 orang guru pendamping dari sekolah setempat berperan sebagai fasilitator yang mendampingi siswa selama kegiatan berlangsung. Tim pengabdian dari Mahsa University Malaysia berjumlah 3 orang bertindak sebagai pelaksana utama kegiatan, sementara tim pengabdian dari Institut Ilmu Kesehatan Bhakta Wiyata Kediri berjumlah 4 orang berperan sebagai kolaborator dan observer.

F. Tahapan Pelaksanaan Kegiatan

1. Persiapan dan koordinasi intensif dengan pihak Mahsa University dan SMK Puchong Utama (1), Malaysia secara daring
2. Survei awal untuk identifikasi kebutuhan dan karakteristik siswa, penyusunan materi edukasi
3. Pelaksanaan kegiatan yang meliputi pre-test pengisian kuesioner awal yang didampingi oleh guru untuk memastikan siswa memahami instruksi dengan baik, edukasi inti dan demonstrasi, sesi penguatan dengan cara tebak gambar, diakhiri dengan post-test yang juga didampingi guru
4. Penutupan dilakukan dengan pemberian kenang-kenangan, foto Bersama
5. Evaluasi dan pelaporan

G. Penyelesaian Masalah di Lapangan

Berdasarkan karakteristik siswa dan potensi kendala di lapangan, tim menyiapkan strategi penyelesaian masalah yang komprehensif, diantaranya [8-9]:

1. Untuk mengatasi keterbatasan komunikasi verbal, tim menggunakan bahasa tubuh, ekspresi wajah, gambar, dan demonstrasi langsung sebagai alat bantu komunikasi.
2. Setiap sesi dirancang singkat dengan durasi maksimal 25 menit, bervariasi, dan melibatkan gerakan fisik untuk mempertahankan perhatian.
3. Kecemasan terhadap benda baru diantisipasi melalui pengenalan bertahap dengan pendampingan satu lawan satu dari guru pendamping
4. Kesulitan membaca diatasi dengan menyediakan kuesioner bergambar dan menggunakan emotikon,
5. Hambatan bahasa diminimalisir dengan penggunaan bahasa Melayu dan Inggris sederhana oleh tim pengabdian
6. Potensi alergi atau sensitivitas terhadap bumbu diantisipasi melalui screening awal dan tidak memaksa siswa untuk mencium atau mencicipi jika mereka merasa tidak nyaman

H. Hasil yang Diinginkan

Kegiatan ini menargetkan hasil yang terbagi dalam tiga tingkatan capaian.

1. Hasil jangka pendek atau output meliputi meningkatnya pemahaman siswa tentang nama, ciri fisik, dan fungsi dasar lima tanaman obat dengan target minimal 70 persen yang diukur melalui pre-test dan post-test
2. Jangka menengah atau outcome mencakup kemampuan siswa untuk mengenali dan menyebutkan minimal tiga tanaman obat yang ada di dapur rumah mereka

I. Evaluasi Keberhasilan Program

Instrumen evaluasi yang digunakan meliputi kuesioner pre-test dan post-test dengan format sederhana bergambar dan emotikon yang mengukur tiga aspek yaitu identifikasi nama, ciri fisik, dan fungsi dasar tanaman obat. Indikator keberhasilan program ditetapkan dengan target yang terukur. Peningkatan pemahaman dari pre-test ke post-test ditargetkan minimal 20 persen. Rata-rata nilai post-test ditargetkan mencapai minimal 75 persen.

J. Keberlanjutan Program

Untuk memastikan keberlanjutan program, tim pengabdian merancang strategi yang komprehensif. Penyerahan media edukasi berupa flashcard tanaman obat kepada sekolah dilakukan agar dapat digunakan dalam pembelajaran rutin oleh para guru. Pembuatan modul sederhana disusun sebagai panduan bagi guru untuk mengintegrasikan materi pengenalan tanaman obat dalam kegiatan belajar mengajar sehari-hari. Publikasi hasil kegiatan juga dilakukan sebagai upaya diseminasi dan

inspirasi bagi sekolah-sekolah lain untuk mengadopsi program serupa dalam konteks pendidikan inklusif.

3. HASIL DAN PEMBAHASAN

Kegiatan pengabdian masyarakat dengan tema "Dapur Ibu sebagai Apotek Keluarga" yang dilaksanakan di SMK Puchong Utama (1), Malaysia, berhasil meningkatkan pemahaman siswa berkebutuhan khusus tentang tanaman obat. Sebanyak 25 siswa berpartisipasi aktif dalam seluruh rangkaian kegiatan, didampingi oleh guru pendukung dan tim pengabdian. Pengukuran pemahaman dilakukan melalui instrumen pre-test dan post-test bergambar yang telah diadaptasi dengan kebutuhan khusus siswa [10]. Instrumen ini mengukur tiga aspek utama: kemampuan mengidentifikasi nama tanaman, mengenali ciri fisik, dan memahami fungsi dasar dari lima bahan obat tradisional (jahe, kunyit, serai, lengkuas, dan bawang putih). Hasil pre-test dan post-test disajikan dalam gambar di bawah ini:

Hasil pengukuran pengetahuan dan pemahaman menunjukkan peningkatan pemahaman (37%) dari 41% sebelum pemberian edukasi menjadi 78% setelah pelaksanaan edukasi atau penyuluhan. Penyuluhan merupakan salah satu strategi yang efektif untuk meningkatkan pengetahuan dan wawasan dalam suatu kegiatan [11]. Pengetahuan siswa menunjukkan bahwa jawaban benar bersumber pada pertanyaan yang tidak terlalu banyak pilihan seperti pada nomor 3 dan 5 dalam kuesioner. Hal ini tentunya disebabkan karena latar belakang siswa yang memiliki keterbelakangan mental dan intelektual. Siswa juga cukup antusias terbukti dengan adanya pertanyaan yang masuk kepada pengabdian tentang manfaat lima obat tradisional. Sepertinya di rumah sebagian siswa sudah sering melihat atau menggunakan bahan-bahan tersebut sehingga beberapa peserta tidak asing ketika dikenalkan dengan bahan-bahan tersebut. Melalui support guru pendamping dan kolaborasi para pengabdian, kegiatan berjalan lancar dan semua siswa mampu menyelesaikan pre-test dan post-test dengan baik tanpa terlewat satu pertanyaanpun. Guru pendamping memiliki peranan yang besar dalam membimbing siswa berkebutuhan khusus, guru pendamping juga membimbing agar siswa berkonsentrasi, berkomunikasi serta mengendalikan perilaku mereka [12].

4. KESIMPULAN

Program ini membuktikan bahwa edukasi tanaman obat berbasis kearifan lokal dapat diakses dan dipahami secara efektif oleh anak berkebutuhan khusus melalui pendekatan kontekstual (berbasis dapur), metode multisensorik, dan strategi adaptif. Kekurangan dalam kegiatan ini adalah belum adanya media materi yang mudah dipahami siswa untuk memastikan bahwa di rumah mereka masih berusaha mengingat. Kelebihan dari kegiatan ini adalah antusias siswa selama pelaksanaan yang diluar dugaan. Keberhasilan ini menjadi model replikasi bagi sekolah inklusif lainnya untuk mengintegrasikan pengetahuan tradisional ke dalam kurikulum, sekaligus menjawab tantangan modernisasi yang menggerus kearifan lokal.

5. SARAN

Perlu persiapan yang lebih matang untuk menghindari kekurangan dalam kegiatan, sebagai contoh adalah pembuatan flashcard tanaman obat yang dibagikan kepada peserta sebagai media edukasi dan pengingat ketika berada di rumah bersama orang tua. Pembuatan modul yang dibagikan kepada guru pendamping juga perlu dilakukan untuk mempermudah mengintegrasikan materi pengenalan tanaman obat dalam kegiatan belajar mengajar.

6. UCAPAN TERIMA KASIH

Penulis mengucapkan terima kasih kepada mitra kegiatan ini, yaitu Mahsa University khususnya Profesor Zahrah Saad dan SMK Puchong Utama (1). Terima kasih sebesarnya juga disampaikan penulis kepada Institut Ilmu Kesehatan Bhakti Wiyata Kediri yang telah memberikan dukungan dana terhadap program pengabdian masyarakat internasional ini.

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KUESIONER MENGENAL TANAMAN OBAT
Dapur Ibu sebagai Apotek Keluarga

Nama Siswa: _____
Tanggal: _____

Petunjuk Pengisian:
Anak-anak hebat, mari kita silang jawaban yang benar! Ibu/Bapak guru akan membantu membacakan pertanyaannya.

1. Apa nama tanaman ini?



A. Jahe
B. Kunyit
C. Bawang putih
D. Serai

2. Kunyit itu warnanya apa, ya?

A.  B.  C.  D. 

3. Jahe itu rasanya pedas dan hangat

 atau 

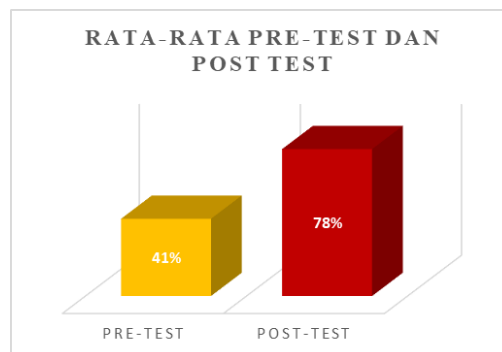
4. Agar tidak digigit nyamuk kita menggunakan:

A.  B.  C.  D. 

5. Kunyit itu berguna untuk apa ya?

 atau 

Gambar 1. Kuesioner Pre-test dan Post-test



Gambar 2. Hasil pengukuran pengetahuan melalui pre-test dan post-test



Gambar 3. Dokumentasi kegiatan



Gambar 4. Dokumentasi kolaborasi pengabdian dari IIK Bhakti Wiyata Kediri dengan mitra internasional (MAHSA University dan SMK Puchong Utama)

FINAL REPORT
COMMUNITY SERVICE PROGRAM



**Mother's Kitchen as a Family Pharmacy: Community Education on
Traditional Medicines for Children with Special Needs at SMK Puchong
Utama, Selangor, Malaysia**

Project Team:

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Dibiayai oleh:

Funded by the International Community Service Collaboration Grant IIK BHAKTA
and SMK Puchong Utama, Selangor, Malaysia

INSTITUT ILMU KESEHATAN BHAKTI WIYATA KEDIRI
2026

APPROVAL PAGE

COMMUNITY SERVICE REPORT

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 - c. Person in Charge : TN HAJI MASWI BIN SAION
5. Duration of Activity : 3 months
6. Sustainable Development Goals (SDGs) : 3, 4, 17
7. Budget : Rp. 15,500,000,-

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EXECUTIVE SUMMARY

The local wisdom of the Malay community in utilizing medicinal plants as part of family healthcare practices has gradually diminished among younger generations, including children with special needs who often have limited access to health education. This community service program aimed to improve the understanding of students with special needs at SMK Puchong Utama (1), Malaysia, regarding the use of medicinal plants through the concept of "Mother's Kitchen as a Family Herbal Pharmacy." The program was implemented using an interactive and participatory educational approach based on multisensory learning. Students were actively engaged in hands-on activities to recognize five commonly used medicinal kitchen herbs and spices—ginger, turmeric, lemongrass, galangal, and garlic—through visual, tactile, olfactory, and gustatory experiences. Participants' knowledge was assessed using illustrated pre-test and post-test questionnaires accompanied by emoticons to facilitate comprehension among students with special needs. The results demonstrated a 37% improvement in participants' understanding, increasing from 41% in the pre-test to 78% in the post-test, thereby exceeding the program's predetermined success target. These findings indicate that a contextual, kitchen-based educational approach is an effective strategy for delivering health education to children with special needs. Furthermore, the program contributes to the preservation of local wisdom while supporting the achievement of the Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education) through inclusive and accessible health education.

CHAPTER 1

INTRODUCTION

A. Situation Analysis

The World Health Organization (WHO) has long advocated the integration of medicinal plants into Primary Health Care (PHC), particularly in developing countries, due to their wide availability, affordability, and relatively low risk of adverse effects when used appropriately (Anggreyni et al., 2025). As one of the world's biodiversity hotspots, Malaysia possesses abundant medicinal plant resources with considerable potential for promoting community health. However, knowledge regarding the use of these plants has not been systematically incorporated into educational programs, particularly for students with special educational needs. Traditionally, Malay families have regarded the household kitchen as a "family herbal pharmacy," where common culinary ingredients are utilized as natural remedies for maintaining health and treating minor illnesses.

Rapid modernization and changing lifestyles have gradually reduced public awareness of traditional medicinal plants, particularly among younger generations (Gustio et al., 2025). This decline represents a significant loss of valuable indigenous knowledge that has been passed down through generations. Previous generations relied extensively on natural ingredients for everyday healthcare, whereas contemporary society has become increasingly dependent on commercial pharmaceutical products. Consequently, preserving and revitalizing local wisdom related to medicinal plants has become increasingly important, especially through educational initiatives targeting children and adolescents.

Students with special educational needs are frequently underrepresented in public health education programs despite having equal rights to acquire knowledge and skills that promote healthy living and personal independence. Cognitive and sensory limitations commonly experienced by students with intellectual disabilities and autism spectrum disorder require modified instructional approaches emphasizing repetition, concrete learning experiences, and multisensory engagement (Kasmawati et al., 2025). Introducing familiar kitchen herbs such as ginger, turmeric, lemongrass, galangal, and garlic provides an ideal educational opportunity because these ingredients are safe, readily available, and possess distinctive sensory characteristics that can be explored through sight, touch, smell, and taste.

SMK Puchong Utama (1), Malaysia, is a secondary school serving students with special educational needs, including those with intellectual disabilities and autism spectrum disorder. These students generally experience below-average intellectual functioning and communication difficulties, necessitating adaptive instructional strategies. Effective inclusive education should accommodate diverse learning abilities and learning styles (Hasanudin et al., 2024), including health education related to medicinal plants and healthy lifestyles.

This Community Service Program was jointly organized by the Faculty of Pharmacy, Institut Ilmu Kesehatan Bhakti Wiyata, Kediri, Indonesia, and the Faculty of Nursing and Midwifery, MAHSA University, Malaysia, as part of an international academic collaboration supporting the implementation of the university's community engagement mission.

B. Problem Statement

Based on the situation analysis, several key issues were identified as the foundation for implementing this Community Service Program. First, a substantial knowledge gap exists between Malaysia's rich biodiversity of medicinal plants and the level of understanding among students with special educational needs regarding the medicinal plants found in their daily surroundings. This limited knowledge prevents local wisdom from being utilized effectively by both students and their families.

Second, educational programs specifically designed to introduce medicinal plants to students with special educational needs remain very limited in Malaysia. As a result, this population has restricted access to culturally relevant health education. Existing educational materials are generally not adapted to the cognitive and sensory characteristics of these students, limiting their opportunities to acquire basic health knowledge through familiar home environments, particularly the family kitchen. Third, communication barriers—including limited verbal abilities, reading difficulties, anxiety toward unfamiliar objects or experiences, and language differences—require instructional methods that differ substantially from conventional health education. More concrete, repetitive, participatory, and multisensory learning approaches are therefore necessary to ensure effective knowledge acquisition. Fourth, educational resources specifically designed for students with special educational needs are still insufficient to support continued learning at home. Sustaining

knowledge acquisition depends greatly on family involvement, particularly mothers, who play a central role in reinforcing and applying healthy practices within the household.

In response to these challenges, this Community Service Program was designed to develop a culturally relevant and adaptive health education model based on the concept of "Mother's Kitchen as a Family Herbal Pharmacy." Through a contextual, participatory, and multisensory learning approach, the program seeks to enhance students' understanding of traditional medicinal plants while preserving local wisdom. Furthermore, the program contributes to the achievement of the Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education) by providing inclusive and accessible health education for an underserved population.

CHAPTER 2

OBJECTIVES AND EXPECTED OUTPUTS

2.1 Program Objectives

This Community Service Program was designed to achieve the following objectives:

1. To improve the understanding of students with special educational needs at SMK Puchong Utama (1), Malaysia, regarding the names, physical characteristics, and basic medicinal functions of five commonly used medicinal plants (ginger, turmeric, lemongrass, galangal, and garlic), with a targeted minimum improvement of 20% between the pre-test and post-test assessments.
2. To achieve an average post-test score of at least 75%, corresponding to the "good" level of knowledge (76–100%).
3. To implement an interactive and participatory health education program based on a multisensory learning approach, actively involving at least 25 students with special educational needs.
4. To enhance students' ability to recognize and identify at least three medicinal plants commonly found in their household kitchens, serving as an indicator of the program's medium-term outcomes.
5. To strengthen sustainable international collaboration between Institut Ilmu Kesehatan Bhakti Wiyata, Kediri, Indonesia, and MAHSA University, Malaysia, in the field of community service and health promotion.

2.2 Expected Outputs

The Community Service Program generated the following outputs:

1. A 37% improvement in students' knowledge of medicinal plants, with the average score increasing from 41% in the pre-test to 78% in the post-test, thereby exceeding the program's predetermined performance target.
2. Educational flashcards featuring medicinal plants, which were presented to the partner school as instructional materials for continuous classroom use.

3. A practical educational guidebook designed to assist teachers in integrating medicinal plant education into daily learning activities for students with special educational needs.
4. Comprehensive documentation of program implementation, including photographs and a final activity report, to support program evaluation, institutional reporting, and dissemination.
5. Preparation of a scientific publication in a community service journal to disseminate the program outcomes and encourage the adoption of similar educational models in other inclusive schools.

CHAPTER 3

METHODOLOGY

3.1 Program Setting

This Community Service Program was conducted at SMK Puchong Utama (1), Selangor, Malaysia, a secondary school providing education for students with special educational needs, particularly those with intellectual disabilities and autism spectrum disorder. The program was jointly implemented through an international collaboration between the Faculty of Pharmacy, Institut Ilmu Kesehatan Bhakti Wiyata, Indonesia, and the Faculty of Nursing and Midwifery, MAHSA University, Malaysia.

The implementation consisted of several phases, including preliminary coordination between both institutions and the partner school, an initial needs assessment, on-site educational activities, and post-program evaluation and reporting.

A total of 37 participants were involved in the program, comprising:

- 25 students with special educational needs as the primary participants;
- 5 teachers from the partner school who served as facilitators and student mentors;
- 3 lecturers from MAHSA University as members of the implementation team; and
- 4 lecturers from Institut Ilmu Kesehatan Bhakti Wiyata who acted as collaborators, facilitators, and observers throughout the program.

3.2 Program Design

The program adopted a multisensory learning approach combined with participatory learning principles to maximize student engagement and comprehension. The instructional strategy emphasized learning by doing, enabling students to explore medicinal plants through direct sensory experiences.

Five commonly used medicinal kitchen herbs and spices were selected as learning materials:

- Ginger (*Zingiber officinale*)
- Turmeric (*Curcuma longa*)
- Lemongrass (*Cymbopogon citratus*)
- Galangal (*Alpinia galanga*)
- Garlic (*Allium sativum*)

Students learned to recognize these plants using multiple sensory modalities, including visual observation, tactile exploration, olfactory identification, and gustatory experience whenever appropriate and safe.

3.3 Program Procedures

3.3.1 Planning and Preparation

The preparation stage began with a series of online coordination meetings involving representatives from MAHSA University, Institut Ilmu Kesehatan Bhakti Wiyata, and SMK Puchong Utama (1). These meetings focused on program planning, participant characteristics, logistics, and learning objectives.

A preliminary needs assessment was subsequently conducted to identify the cognitive abilities, communication characteristics, and educational needs of the participating students. The findings informed the development of instructional materials and evaluation instruments specifically adapted for students with special educational needs.

To evaluate learning outcomes, illustrated **pre-test** and **post-test** questionnaires were developed using simple language, pictures, and emoticons to facilitate comprehension. The questionnaire consisted of **five multiple-choice questions**, each scored as **1** for a correct response and **0** for an incorrect response. Knowledge scores were calculated as the percentage of correct responses and classified as follows:

- **Good:** 76–100%
- **Moderate:** 56–75%
- **Poor:** <56%

To ensure effective implementation, several adaptive learning strategies were incorporated, including:

- the use of body language, facial expressions, visual aids, and live demonstrations to overcome communication barriers;
- short educational sessions (approximately 25 minutes) with varied interactive activities to maintain students' attention;
- one-to-one teacher assistance for students experiencing anxiety or sensory discomfort;
- picture-based questionnaires with emoticons to accommodate reading limitations;
- the use of simple Malay and English to minimize language barriers; and
- preliminary screening for possible allergies or sensitivities to herbal ingredients, without requiring students to smell or taste any material if they felt uncomfortable.

3.3.2 Educational Intervention

The educational session was conducted using the concept of "**Mother's Kitchen as a Family Herbal Pharmacy.**"

The program began with the administration of the pre-test, during which teachers assisted students in understanding the instructions and completing the questionnaire independently whenever possible.

The main educational activity consisted of demonstrations and guided exploration of five medicinal kitchen herbs. Students were encouraged to interact directly with each plant through multisensory experiences, including:

- observing the color, size, and shape of each plant;
- touching and comparing textures;
- smelling the characteristic aroma of each herb; and
- tasting selected ingredients that were safe for consumption.

To reinforce learning, students participated in an interactive picture-guessing game designed to strengthen recognition and recall of the medicinal plants in an enjoyable and engaging manner.

The session concluded with administration of the post-test, followed by the presentation of souvenirs and a group photograph involving all participants, teachers, and the implementation team.

3.3.3 Program Evaluation

Program effectiveness was evaluated by comparing participants' pre-test and post-test scores using the illustrated questionnaires.

Three key learning outcomes were assessed:

- the ability to identify the names of medicinal plants;
- recognition of their physical characteristics; and
- understanding of their basic medicinal uses.

Program success was determined using two predefined indicators:

1. a minimum **20% increase** in participants' knowledge scores between the pre-test and post-test; and
2. an average post-test score of at least **75%**.

In addition to quantitative assessment, qualitative observations were conducted throughout the program to evaluate students' participation, enthusiasm, communication, and engagement during learning activities. These observations provided valuable information for planning future improvements and ensuring the sustainability of similar community engagement initiatives.

CHAPTER 4

RESULTS AND ACHIEVEMENTS

The Community Service Program entitled "**Mother's Kitchen as a Family Herbal Pharmacy**", conducted at **SMK Puchong Utama (1), Selangor, Malaysia**, successfully improved the understanding of students with special educational needs regarding the use of traditional medicinal plants. A total of **25 students** actively participated in all program activities under the guidance of their teachers and the community service team.

Participants' knowledge was assessed using illustrated pre-test and post-test questionnaires specifically adapted to accommodate the cognitive and communication needs of students with special educational needs. The assessment evaluated three key learning outcomes: (1) the ability to identify the names of medicinal plants, (2) recognition of their physical characteristics, and (3) understanding of their basic medicinal functions.

4.1 Pre-test and Post-test Results

The evaluation demonstrated a **37% improvement** in participants' knowledge following the educational intervention. The average score increased from **41%** in the pre-test to **78%** in the post-test, indicating that both predefined program targets—a minimum knowledge improvement of **20%** and an average post-test score of at least **75%**—were successfully exceeded.

Table 4.1. Comparison of Participants' Knowledge Before and After the Educational Program

Indicator	Pre-test	Post-test
Average knowledge score	41%	78%
Knowledge category	Poor	Good
Knowledge improvement	37%	

Further analysis indicated that participants achieved higher accuracy on questions containing fewer response options, reflecting the cognitive characteristics of the target population. Nevertheless, all participants successfully completed both the pre-test and post-test without leaving any unanswered questions. This achievement was made possible through continuous

assistance provided by teachers and members of the community service team throughout the assessment process.

4.2 Participant Engagement and Learning Experience

The educational activities generated a high level of enthusiasm among the participating students. Their engagement was demonstrated by active participation during the multisensory learning sessions and by the numerous questions they asked regarding the health benefits and uses of the five medicinal plants introduced during the program.

Several students were already familiar with some of the herbs and spices, suggesting that these ingredients were commonly available and occasionally used within their households. This familiarity facilitated the learning process by allowing students to connect newly acquired knowledge with their everyday experiences.

Teachers played a crucial role in ensuring the success of the program by assisting students in maintaining attention, facilitating communication, providing behavioral support, and encouraging active participation throughout the educational sessions.

4.3 Program Outputs and Achievements

The implementation of the Community Service Program resulted in several significant achievements:

1. **Participants' knowledge of medicinal plants increased by 37%**, substantially exceeding the program's minimum target of a 20% improvement.
2. **The average post-test score reached 78%**, surpassing the predetermined target of 75% and placing participants within the **"Good"** knowledge category.
3. **An interactive multisensory health education program** was successfully delivered to all **25 students with special educational needs**, with full participation throughout the activity.
4. **A sustainable international collaboration** was strengthened between **Institut Ilmu Kesehatan Bhakti Wiyata, Indonesia, and MAHSA University, Malaysia**, through the implementation of a cross-border community engagement initiative.

5. **Comprehensive program documentation**, including activity records and photographs, was produced to support institutional reporting, program evaluation, and future scientific dissemination through community engagement publications.

Overall, the program exceeded its primary performance indicators. However, one important limitation was identified: students were not provided with take-home educational materials to reinforce the knowledge acquired during the training sessions. Consequently, opportunities for reviewing and practicing the information with their families at home remained limited. This limitation has informed the development of the follow-up strategies presented in the subsequent chapter to enhance the long-term sustainability and educational impact of the program.

CHAPTER 5

FUTURE ACTION PLAN

To ensure the long-term sustainability and broader impact of the Community Service Program for students with special educational needs and the partner school, the implementation team has developed the following follow-up action plan:

1. **Provision of educational flashcards on medicinal plants** to the partner school for continuous use as teaching and learning resources during regular classroom activities.
2. **Development of a practical teacher's guide** to assist teachers in integrating medicinal plant education into the daily curriculum of inclusive education.
3. **Development of take-home educational materials**, such as flashcards and illustrated learning cards, to reinforce students' knowledge and facilitate continued learning with their families at home.
4. **Greater involvement of parents**, particularly mothers as primary caregivers, in future educational sessions to encourage the practical application of knowledge through the concept of "**Mother's Kitchen as a Family Herbal Pharmacy.**"
5. **Expansion of the program to other inclusive schools** in both Malaysia and Indonesia to broaden its impact while promoting the preservation of local knowledge related to traditional medicinal plants.
6. **Dissemination of program outcomes through publication** in a peer-reviewed community engagement journal to share best practices and encourage other educational institutions to adopt similar approaches.
7. **Periodic monitoring and evaluation** of students' knowledge retention to assess the medium-term outcomes of the program, particularly their ability to recognize, identify, and describe medicinal plants commonly found in their household kitchens.

The implementation of these follow-up activities is expected to strengthen the sustainability of the program, extend its benefits to a larger population of students with special educational needs, and foster stronger collaboration among educational institutions, families, and community partners. Furthermore, these initiatives contribute to the achievement of the **Sustainable Development Goals (SDGs)**, particularly **SDG 3 (Good**

Health and Well-being) and **SDG 4 (Quality Education)**, by promoting inclusive, accessible, and culturally relevant health education.

CHAPTER 6

CONCLUSION

The Community Service Program entitled "Mother's Kitchen as a Family Herbal Pharmacy" proved to be an effective educational intervention for improving the knowledge of students with special educational needs at SMK Puchong Utama (1), Selangor, Malaysia, regarding traditional medicinal plants. The program achieved a 37% increase in participants' knowledge, with the average score improving from 41% in the pre-test to 78% in the post-test, thereby exceeding the predetermined performance targets. The multisensory and contextual learning approach, which utilized familiar kitchen herbs and spices as educational media, successfully addressed the cognitive and communication challenges experienced by the participants. By integrating hands-on experiences with culturally relevant learning materials, the program enhanced students' understanding while promoting active participation and meaningful learning. Beyond its educational outcomes, the program also contributed to the preservation of local wisdom related to the use of traditional medicinal plants within the family setting. Furthermore, the international collaboration between Institut Ilmu Kesehatan Bhakti Wiyata, Indonesia, and MAHSA University, Malaysia, demonstrated the value of cross-border partnerships in developing innovative and inclusive community engagement initiatives. Overall, this program supports the achievement of the Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education), by providing accessible, culturally responsive, and inclusive health education for students with special educational needs.

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ATTACHMENT



BHAKTA
Institut Ilmu Kesehatan

LETTER OF ASSIGNMENT
Number : 659/DA/U/II/2024

The undersigned below :

Name : Ekawati Sutikno, dr., MM., M.Kes
Position : Resource Director
Institit Ilmu Kesehatan Bhakti Wiyata Kediri
Address : Jl. KH. Wahid Hasyim 65 Kediri 64114 Jawa Timur

Hereby assign assignments to :

Name : Lia Agustina, S.Si., Ms., Apt. (2016.0834)
Ketut Suardita, drg., Ph.D., Sp.KG. Subsp. KR(K)
(2020.1126)
drg. Puspa Dila Rohmaniar, M.Kes (2011.0440)
Afrida Nurmalasari, drg., M.Kes. (2021.1157)
Winanda Rizki Bagus Santosa, S.Kep., M.Kep., Ns
(2016.0840)
Dyah Aryantini, S.Si., M.Sc. (2013.0570)
Day : Tuesday - Saturday
Date : 16 – 20 July 2024
Program : Benchmarking and Discuss Collaboration Research,
Social Responsibility
Place : 1. Universitas Sains Malaysia, 2. MAHSA University, 3.
Management and Science University Malaysia,
4. Lincoln Collage Malaysia

Thus, this letter of assignment is written to the person concerned to be carried out with full responsibility.

Kediri, 15 July 2024
Resource Director



Ekawati Sutikno, dr., MM., M.Kes
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ACTIVITY QUESTIONNAIRE



QUESTIONNAIRE ON RECOGNIZING MEDICINAL PLANTS

Mother's Kitchen as a Family Pharmacy



Student's Name: _____

Date: _____

Instructions

Dear students, let's choose the correct answer! Your teacher will help read the questions.

1 What is the name of this plant?



- A. Ginger
- B. Turmeric
- C. Garlic
- D. Lemongrass

2 What color is turmeric?



3 Ginger tastes spicy and warm.



Yes

or



No

4 To keep mosquitoes away, we use:

A.



B.



C.



D.



5 What is turmeric good for?



Helping us stay healthy

or



Making us sick

ACTIVITY DOCUMENTATION

