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# LAMPIRAN

**Lampiran 1:**

## Surat Izin Penelitian Tujuan Dinas Kesehatan Kabupaten Kutai Barat

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN
RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS KESEHATAN MASYARAKAT
Jl. PerintisKemerdekaan Km 10 Makassar 90245, Telp. (0411) 585658
E-mail : dekanfkmunhas@gmail.com, website: https://fkm.unhas.ac.id/

Nomor : 7861/UN4.14/PT.01.04/2022 14 Juli 2022
Lamp : 1 (satu) berkas
Hal : Permohonan Izin Penelitian

Kepada
Yth : **Kepala Dinas Kesehatan Kabupaten Kutai Barat**
di
Kalimantan Timur

Dengan hormat kami sampaikan bahwa mahasiswa Program Pascasarjana Universitas Hasanuddin yang tersebut dibawah ini :

| | |
|---|---|
| Nama | : Parellangi |
| NomorPokok | : K013201008 |
| Program Pendidikan | : Doktor (S3) |
| Program Studi | : Ilmu Kesehatan Masyarakat |

Bermaksud melakukan penelitian dalam rangka persiapan penulisan Disertasi denganJudul "***Pengembangan Model Health Literacy Pencegahan Stroke Berbasis Family Adaptive Behavior Pada Suku Dayak Provinsi Kalimantan Timur***".

| | | |
|---|---|---|
| Promotor | : | Prof.Dr.dr. H.Muh. Syafar, MS |
| Co-Promotor | : | Prof. Sukri Palutturi, SKM,M.Kes,M.Sc.PH,Ph.D |
| Co-Promotor | : | Dr.Agus Bintara Birawida,S.Kel,M.Kes |
| **Waktu Penelitian** | : | **Juli – Nopember 2022** |
| **Tempat Penelitian** | : | **Dinas Kesehatan Kabupaten Kutai Barat.** |

Sehubungan dengan hal tersebut kami mohon kebijaksanaan Bapak kiranya berkenan memberi izin kepada yang bersangkutan.

Atas perkenan dan kerjasamanya disampaikan terima kasih.

Dekan

**Dr. Aminuddin Syam, SKM, M.Kes., M.Med.Ed.**
NIP. 19670617 199903 1 001

Tembusan :
1. Kepala Kec. Barong Tongkok Kab. Kutai Barat Provinsi Kalimantan Timur
2. Kepala Puskesmas Barong Tongkok
3. Mahasiswa yang bersangkutan
4. Arsip

**Lampiran 2:**

**Surat Izin Penelitian Tujuan Instansi Puskesmas Barong Tongkok**

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN
RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS KESEHATAN MASYARAKAT
Jl. PerintisKemerdekaan Km 10 Makassar 90245, Telp. (0411) 585658
E-mail : dekanfkmuh@gmail.com, website: https://fkm.unhas.ac.id/

Nomor : 7833/UN4.14/PT.01.04/2022 14 Juli 2022
Lamp : 1 (satu) berkas
Hal : Permohonan Izin Penelitian

Kepada
Yth : **Kepala Puskesmas Barong Tongkok**
di
Kalimantan Timur

Dengan hormat kami sampaikan bahwa mahasiswa Program Pascasarjana Universitas Hasanuddin yang tersebut dibawah ini :

| | |
|---|---|
| Nama | : Parellangi |
| NomorPokok | : K013201008 |
| Program Pendidikan | : Doktor (S3) |
| Program Studi | : Ilmu Kesehatan Masyarakat |

Bermaksud melakukan penelitian dalam rangka persiapan penulisan Disertasi denganJudul "***Pengembangan Model Health Literacy Pencegahan Stroke Berbasis Family Adaptive Behavior Pada Suku Dayak Provinsi Kalimantan Timur***".

| | | |
|---|---|---|
| Promotor | : | Prof.Dr.dr. H.Muh. Syafar, MS |
| Co-Promotor | : | Prof. Sukri Palutturi, SKM,M.Kes,M.Sc.PH,Ph.D |
| Co-Promotor | : | Dr.Agus Bintara Birawida,S.Kel,M.Kes |
| **Waktu Penelitian** | : | **Juli – Nopember 2022** |
| **Tempat Penelitian** | : | **Puskesmas Barong Tongkok**. |

Sehubungan dengan hal tersebut kami mohon kebijaksanaan Bapak kiranya berkenan memberi izin kepada yang bersangkutan.

Atas perkenan dan kerjasamanya disampaikan terima kasih.

Dekan

**Dr. Aminuddin Syam, SKM, M.Kes., M.Med.Ed.**
NIP. 19670617 199903 1 001

Tembusan :
1. Mahasiswa yang bersangkutan
2. Arsip

**Lampiran 3:**

## Surat Persetujuan Penelitian Puskesmas Barong Tongkok

PEMERINTAH KABUPATEN KUTAI BARAT
DINAS KESEHATAN
**UPT PUSKESMAS BARONG TONGKOK**
Alamat : Jl. R.A. Kartini RT. III Kelurahan Barong Tongkok HP. 081213077838 Kode Pos 75576
Email : puskesmas.barongtongkok@yahoo.com

Nomor : 449.1-895.6 / 5352 / TU / IX / 2022
Lampiran : -
Prihal : **Persetujuan Ijin Penelitian**

Kepada Yth,
Dekan Universitas Hasanuddin
Di – Makasar

Dengan hormat,

Menanggapi surat yang dikirim oleh Dekan Universitas Hasanuddin Nomor : 7833/UN4.14/PT.01.04/2022, perihal Persetujuan Ijin Penelitian yaitu :

| | |
|---|---|
| Nama | : PARELLANGI |
| Nomor Pokok | : K013201008 |
| Program Pendidikan | : Doktor (S3) |
| Program Studi | : Ilmu Kesehatan Masyarakat |
| Judul | : **"Pengembangan Model Health Literacy Pencegahan Stroke Berbasis Family Adaptive Behavior Pada Suku Dayak Provinsi Kalimantan Timur".** |

Pada prinsifnya kami menyetujui dan memberikan ijin kepada yang bersangkutan untuk melakukan penelitian dan Penggalian Data, dalam rangka meningkatkan kemampuan menerapkan pengetahuan dan keterampilan bagi mahasiswa untuk mendapatkan pengalaman praktis di tempat kerja, sehingga memiliki kompetensi di bidang keilmuan masing-masing.

Demikian Surat ini kami sampaikan atas perhatian dan kerja samanya kami ucapkan terima kasih.

Barong Tongkok, 14 September 2022
Kepala
UPT Puskesmas Barong Tongkok

DINAS KESEHATAN UPT PUSKESMAS BARONG TONGKOK KABUPATEN KUTAI BARAT

**Margaretha Sustanti, A.Md.Keb**
NIP. 19780218 200502 2 004

**Lampiran 4:**

## Surat Izin Etik Penelitian

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS HASANUDDIN
FAKULTAS KESEHATAN MASYARAKAT
*Sekretariat: Jl. Perintis Kemerdekaan Km. 10 Makassar 90245, Telp (0411) 585658*
*Fax. (0411) 586013. Email: dekanfkmuh@gmail.com. Website: www.fkm.unhas.ac.id*

**SURAT PERSETUJUAN ATASAN YANG BERWENANG**
No: 7581/UN4.14.1/DI.03/2022

Yang bertanda tangan dibawah ini :

| | |
|---|---|
| Nama | : Ansariadi, SKM, M.Sc.PH., Ph.D |
| N I P | : 197201091997031004 |
| Jabatan | : Wakil Dekan Bidang Akademik, Riset dan Inovasi Fakultas Kesehatan Masyarakat Universitas Hasanuddin |

Menyatakan bahwa :

| | |
|---|---|
| N a m a | : Parellangi |
| N I M | : **K013201008** |
| Judul Penelitian | : **Pengembangan Model *Health Literacy* Pencegahan Stroke Berbasis *Family Adaptif Behavior* Pada Suku Dayak Provinsi Kalimantan Timur Tahun 2022** |

Disetujui untuk melakukan penelitian dengan judul tersebut di atas.
Demikian disampaikan untuk dapat dipergunakan sebagaimana mestinya.

Makassar, Juni 2022
Wakil Dekan Bidang Akademik, Riset dan Inovasi

Ansariadi, SKM, M.Sc.PH., Ph.D
NIP. 197201091997031004

**Lampiran 5:**

**PETUNJUK PENGISIAN DAN KUESIONER PENELITIAN**

Petunjuk pengisian:

1. Bacalah dengan teliti pertanyaan berikut dibawah ini.
2. Isilah Pertanyaan pada tempat yang telah disediakan.
3. Apabila pertanyaan berupa pilihan, Jawablah dengan pemberian tanda centang pada kolom yang telah disediakan.

---

**Identitas responden**

**A. Pasien**

1. Nomor urut responden pasien : .....(diisi peneliti)
2. Jenis kelamin : .....
3. Umur : .....
4. Pendidikan : .....
5. Pekerjaan : .....
6. Penghasilan/Bulanan : .....
7. Memiliki orangtua hipertensi : .....
8. Tinggi Badan .....cm, Berat Badan .....kg, IMT=.....(diisi peneliti)
9. Tekanan Darah .....(diisi peneliti)
10. Alamat: .....
11. No HP: .....

B. Keluarga

1. Nomor urut responden keluarga: .....(diisi peneliti)
2. Hubungan dengan pasien : .....
3. Jenis kelamin : .....
4. Umur : .....
5. Pendidikan : .....
6. Pekerjaan : .....
7. Penghasilan/Bulanan : .....

8. Alamat: .....
9. No HP: .....

**Lampiran 6:**

## KUESIONER *HEALTH LITERACY* PENCEGAHAN STROKE

Kuesioner modifikasi yang diadaptasi dari European *Health Literacy* Study (HLS-EU) oleh Sorensen et al, 2013. Petunjuk:

1. Pahami setiap pernyataan dengan seksama
2. Berikan tanda centang pada kolom yang sesuai dengan kondisi yang saudara rasakan
3. Pilihan jawaban mulai dari sangat sulit, sulit, mudah, sangat mudah

| No. | PERNYATAAN | SS | S | M | SM |
|---|---|---|---|---|---|
| Akses Informasi | | | | | |
| 1 | Mencari informasi tentang bagaimana mengelola Perilaku tidak sehat seperti merokok, konsumsi makanan berlemak, konsumsi garam berlebihan, aktivitas fisik yang rendah dan terlalu banyak minum alkohol. | | | | |
| 2 | Mencari informasi tentang tempat pemeriksaan Kesehatan (posbindu) agar dapat memeriksakan tekanan darah, tes gula darah, pemeriksaan kolesterol, dsb. | | | | |
| 3 | Menentukan informasi tentang bagaimana mencegah atau mengelola kondisi seperti tekanan darah tinggi, kelebihan berat badan atau kolesterol tinggi | | | | |
| Memahami informasi | | | | | |
| 4 | Memahami dampak perilaku buruk seperti merokok konsumsi makanan berlemak, konsumsi garam berlebihan, aktivitas fisik yang rendah dan terlalu banyak minum alkohol terhadap kesehatan | | | | |
| 5 | Mengerti mengapa anda membutuhkan pemeriksaan tekanan darah secara rutin | | | | |
| 6 | Mengapa Anda membutuhkan pemeriksaan kesehatan | | | | |
| Penilaian | | | | | |
| 7 | Menilai seberapa besar peluang Anda mengalami gangguan kesehatan akibat merokok, konsumsi makanan berlemak, konsumsi garam berlebihan aktivitas fisik yang rendah dan terlalu banyak minum alkohol. | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 8 | Menilai Kapan anda perlu pergi ke dokter untuk pemeriksaan | | | | |
| 9 | Memutuskan pemeriksaan kesehatan mana yang harus anda lakukan dan seperti pemeriksaan tekanan darah, tes gula darah, pemeriksaan kolesterol, dsb. | | | | |
| Penerapan | | | | | |
| 10 | Memutuskan cara melindungi diri Anda dari penyakit berdasarkan nasehat dari keluarga dan teman | | | | |
| 11 | Memutuskan Bagaimana anda dapat melindungi diri Anda dari penyakit Berdasarkan informasi di media seperti TV internet atau media lain | | | | |

**Lampiran 7:**

**INSTRUMEN PENELITIAN**

**PETUNJUK PENGISIAN:**

Berikan tanda silang (x) pada kotak pilihan sesuai dengan kondisi sebenarnya:

---

***A. Simple Lifestyle Indicator Questionnaire***

**a. Diet**

Untuk menjawab pertanyaan-pertanyaan di bawah ini, mohon anda pikirkan tentang kebiasaan makan anda dalam setahun terakhir. Seberapa sering anda mengkonsumsi makanan berikut. Harap sertakan semua makanan, camilan, dan makan di luar rumah.

Berikan tanda silang (X) pada jawaban yang sesuai:

1. Konsumsi sayur lokal berwarna hijau, dengan atau tanpa sayuran lainnya.
   [ ] kurang dari 1 kali/minggu [ ] 1 kali/minggu [ ] 2-3 kali/minggu
   [ ] 4-6 kali/minggu [ ] sekali/hari [ ] lebih dari 2 kali/hari

2. Konsumsi buah: semua jenis buah lokal, tropis, dan segar.
   [ ] kurang dari 1 kali/minggu [ ] 1 kali/minggu [ ] 2-3 kali/minggu
   [ ] 4-6 kali/minggu [ ] sekali/hari [ ] lebih dari 2 kali/hari

3. Mengonsumsi olahan daging babi yang diasinkan: digoreng, dipanggang, dicampur sambel.
   [ ] kurang dari 1 kali/minggu [ ] 1 kali/minggu [ ] 2-3 kali/minggu
   [ ] 4-6 kali/minggu [ ] sekali/hari [ ] lebih dari 2 kali/hari

**b. Aktivitas fisik**

Untuk menjawab pertanyaan-pertanyaan dibawah ini, mohon dituliskan berapa kali dalam seminggu anda mengambil bagian atau melakukan kegiatan berikut selama setidaknya 30 menit atau lebih pada suatu waktu:

Berikan tanda silang (X) pada jawaban yang sesuai:

1. Aktivitas ringan, seperti:
   - berkebun ringan, pekerjaan rumah tangga ringan (membersihkan rumah, menyapu, menyedot debu)
   - berjalan santai, joging, memancing, pertukangan, memainkan alat musik

   [ ] tidak dilakukan [ ] 1-3 kali/minggu [ ] 4-7 kali/minggu
   [ ] Lebih dari 8 kali/ minggu

2. Aktivitas sedang, seperti:
   - jalan cepat, bersepeda santai, skating, berenang ringan
   - berkebun (menyapu, menyiangi, menyiram tanaman)
   - menari atau olah raga dengan aktivitas sedang

   [ ] tidak dilakukan [ ] 1-3 kali/minggu [ ] 4-7 kali/minggu
   [ ] Lebih dari 8 kali/ minggu

3. Aktivitas berat, seperti:

- berlari, bersepeda jarak jauh, berenang satu putaran atau lebih, aerobik
- pekerjaan berat di halaman
- sepak bola, bola basket atau olahraga liga lainnya

[ ] tidak dilakukan [ ] 1-3 kali/minggu [ ] 4-7 kali/minggu

[ ] Lebih dari 8 kali/ minggu

**c. Konsumsi alkohol**

Mohon dituliskan berapa banyak minuman dari jenis alkohol berikut dan frekuensi yang anda konsumsi rata-rata dalam seminggu:

- Anggur : _____minuman (1 Botol)
- Bir : _____minuman (1 botol)
- Wiski : _____minuman (1 Botol)
- Tuak : _____minuman (1 Botol)
- Topi Miring : _____minuman (1 Botol)

Frekuensi konsumsi:

[ ] kurang dari 1 kali/minggu [ ] 1 kali/minggu [ ] 2-3 kali/minggu
[ ] 4-6 kali/minggu [ ] sekali/hari [ ] lebih dari 2 kali/hari

**d. Merokok**

Mohon dituliskan kebiasaan merokok anda sesuai pertanyaan di bawah ini:

1. Apakah anda seorang perokok saat ini? [ ] Ya [ ] Tidak
2. Jika jawaban no 1 **ya**, sudah berapa lama Anda merokok? _____ tahun
3. Jika jawaban no 1 **tidak**, apakah anda pernah merokok? [ ] Ya [ ] Tidak
4. Jika jawaban no 3 **ya**, berapa tahun yang lalu anda berhenti? ____ tahun

**e. Konsumsi Kopi**

1. Apakah anda minum kopi? [ ] Ya [ ] Tidak
2. Jika jawaban no 1 **ya**, berapa gelas dalam sehari anda minum kopi? _____ gelas
3. Jika jawaban no 1 **ya,** berapa kali dalam seminggu ada minum kopi? _____ kali

**f. Tingkat stress**

Untuk menjawab pertanyaan ini, mohon **lingkari angka** yang menurut anda paling sesuai dengan tingkat stres dalam kehidupan sehari-hari anda:

**1 2 3 4 5 6**

Sama sekali tidak stres Sangat menegangkan

**Lampiran 8:**

## Stroke Risk Score

| Faktor Risiko | Pilihan Jawaban | | |
|---|---|---|---|
| **Tekanan Darah** | ☐ 130/80 atau lebih | ☐ 120-129/<80 | ☐ <120/<80 |
| **Dada sering berdebar** | ☐ iya | ☐ Tidak | |
| **Merokok** | ☐ Merokok | ☐ mencoba berhenti | ☐ tidak merokok |
| **Kolesterol** | ☐ >240 atau lebih | ☐ 200-239 | ☐ <200 |
| **Diabetes** | ☐ Iya | ☐ tidak | |
| **Aktifitas Fisik** | ☐ Tidak | ☐ 1-2 kali/minggu | ☐ 3-4 kali/minggu |
| **Berat Badan (IMT)** | ☐ >27 | ☐ 25 - 27 | ☐ <24 |
| **Stroke Dalam Keluarga** | ☐ Iya | ☐ tidak tahu | ☐ tidak |
| Total Score | ☐ Berisiko tinggi | ☐ risiko sedang | ☐ risiko ringan |

| Tekanan Darah | | Olahraga | | Merokok | | Kolesterol | | Diabetes | | Dada Sering Berdebar | | Riwayat Keluarga Stroke | | Berat Badan (Nilai IMT) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| > 130/80 | 2 | Tidak Pernah | 2 | Ya | 2 | > 240 / Tidak tahu | 2 | Ya | 1 | Ya | 1 | Ya | 2 | > 27 |
| 120/129/80 | 1 | 1-2 kali/wk | 1 | Mencoba Berhenti | 1 | 200-239 | 1 | | | | | Tidak Tahu | 1 | 25 - 27 |
| < 120/80 | 0 | 3-4 kali/wk | 0 | Tidak | 0 | < 200 | 0 | Tidak | 0 | Tidak | 0 | Tidak Ada | 0 | < 24 |

Catatan: Jika total skor anda >35 dikategerikan berisiko tinggi, jika total skor 29-35 dikategorikan berisiko sedang, jika total skor <29 dikategorikan berisiko rendah.

Skor total saya: .....

Risiko stroke saya: ☐ Ringan ☐ Sedang ☐ Berat

**Lampiran 9:**

## KUESIONER MEKANISME KOPING KELUARGA

**Petunjuk pengisian:**

a. Bacalah item pernyataan kuesioner dibawah dengan ini dengan seksama sebelum menentukan jawaban anda
b. Berilah tanda silang (X) pada kotak disebelah kanan pernyataan sesuai dengan pilihan/kondisi sesungguhnya yang anda alami
c. Untuk setiap item pertanyaan, pilihan jawaban saudara adalah:
   **Sangat tidak setuju (1), tidak setuju (2), Setuju (3), Sangat setuju (4)** dengan petunjuk sebagai berikut:
   - **Sangat tidak setuju (1):** Sangat tidak setuju dengan pernyataan tersebut
   - **Tidak setuju (2):** tidak setuju dengan pernyataan tersebut
   - **Setuju (3)**: setuju dengan pernyataan tersebut
   - **Sangat setuju (4)**: sangat setuju dengan pernyataan tersebut

| NO | PERNYATAAN | PILIHAN JAWABAN | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 1. | Saya berusaha mencari informasi tentang penyakit Stroke | | | | |
| 2. | Saya berusaha mencari informasi tentang cara merawat dan memenuhi kebutuhan pasien di rumah | | | | |
| 3. | Saya berusaha mencari penjelasan mengenai tanda dan gejala serangan Stroke berulang | | | | |
| 4. | Saya ingin mengetahui bagaimana membantu pasien beraktivitas di rumah | | | | |
| 5. | Penjelasan tentang Stroke dan perawatannya saya dapatkan dari tenaga kesehatan (dokter/perawat) | | | | |
| 6. | Saya hanya mendapatkan informasi tentang Stroke dari teman/keluarga | | | | |
| 7. | Stroke adalah penyakit yang berbahaya dan menakutkan sehingga kontak dengan pasien harus dihindari | | | | |
| 8. | Dampak dan akibat dari penyakit Stroke tidak terlalu berat sehingga tidak perlu dikhawatirkan | | | | |
| 9. | Pasien yang terserang Stroke berisiko tinggi mengalami serangan Stroke berulang | | | | |
| 10. | Kondisi pasien harus dijaga agar tidak mengalami Stroke berulang | | | | |
| 11. | Rehabilitasi setelah serangan Stroke tidak banyak manfaatnya untuk mengembalikan fungsi tubuh pasien | | | | |
| 12. | Tugas merawat pasien adalah tugas yang berat dan sulit untuk dilakukan | | | | |
| 13. | Memenuhi kebutuhan dasar pasien Stroke di rumah adalah tugas utama keluarga | | | | |
| 14. | Mendampingi pasien latihan fisik di rumah bukan peran keluarga | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 15. | Pemulihan pasien di rumah adalah tanggung jawab utama petugas kesehatan | | | | |
| 16. | Pasien memerlukan perhatian yang lebih dari keluarga agar tercapai kondisi yang baik | | | | |
| 17. | Saya menyukai tantangan dalam merawat pasien paska Stroke di rumah | | | | |
| 18. | Saya berusaha sebaik mungkin merawat dan mendampingi pasien di rumah | | | | |
| 19. | Saya berupaya menemukan cara untuk merawat pasien di rumah, tidak ada hambatan bagi saya | | | | |
| 20. | Merawat pasien Stroke di rumah adalah suatu pengalaman yang positif | | | | |
| 21. | Jika ada anggota keluarga lain yang ragu dengan kemampuan saya, maka saya meyakinkannya bahwa saya mampu merawat pasien Stroke dengan baik | | | | |
| 22. | Pemulihan pasien sangat ditentukan oleh pasien sendiri | | | | |
| 23. | Sedikit sekali peran keluarga dalam pemulihan pasien | | | | |
| 24. | Berbagai masalah fisik yang dialami pasien seperti kelumpuhan dan tidak mampu berbicara tidak mungkin untuk kembali normal | | | | |
| 25. | Masalah fisik yang dialami oleh pasien sangat merepotkan saya | | | | |
| 26. | Perilaku pasien seperti marah dan sedih hanya upaya mencari perhatian saya | | | | |
| 27. | Pasien sedih, sering melamun dan tidak mau berinteraksi adalah masalah yang serius yang harus diatasi | | | | |
| 28. | Saya merasa terbebani dengan perilaku pasien yang tidak seperti biasanya (marah, menangis, sedih) | | | | |
| 29. | Pendapat atau nasehat orang lain dapat membantu saya dalam merawat dan mendampingi pasien di rumah | | | | |
| 30. | Saya akan berbicara dengan teman atau kerabat tentang masalah yang saya alami | | | | |

**Lampiran 10:**

## KUESIONER *SELF EFFICACY*

Kuesioner ini diadaptasi dari *GENERAL SELF EFFICACY* (GSE) oleh Schwarzer, R, & Jerusalem, M. (1995). Petunjuk pengisian:

1. Pahami setiap pertanyaan dengan seksama
2. Berikan tanda centang pada kolom yang sesuai dengan Pendapat saudara
3. Pilih jawaban meliputi Tidak setuju (TS), Agak Setuju (AS), Hampir Setuju (HS), Sangat Setuju (SS).

| No. | PERNYATAAN | TS | AS | HS | SS |
|---|---|---|---|---|---|
| 1 | Persoalan yang sulit selalu berhasil saya pecahkan, jika saya berusaha | | | | |
| 2 | Jika seseorang yang menghambat Tujuan saya, saya akan mencari cara dan jalan untuk terus mencapai tujuan tersebut | | | | |
| 3 | Tidak sulit bagi saya untuk melaksanakan niat dan tujuan saya | | | | |
| 4 | Dalam situasi yang tak terduga, saya selalu tahu bagaimana saya harus bertingkah laku | | | | |
| 5 | Jika saya berhadapan dengan hal yang baru yang merugikan, saya tahu cara menanggulanginya | | | | |
| 6 | Saya mampu memecahkan setiap persoalan yang ada | | | | |
| 7 | Saya dapat mengatasi kesulitan dengan tenang, karena saya bisa mengandalkan kemampuan saya | | | | |
| 8 | Kalau saya mengalami kesulitan, biasanya saya punya banyak ide untuk mengatasinya | | | | |
| 9 | Meski muncul persoalan dalam keadaan yang tak terduga, saya dapat mengatasinya dengan baik. | | | | |
| 10 | Apapun Yang Terjadi, saya siap menghadapinya | | | | |

**Lampiran 11:**

## KUESIONER MEKANISME DUKUNGAN KELUARGA

**Petunjuk pengisian:**

d. Bacalah item pernyataan kuesioner dibawah dengan ini dengan seksama sebelum menentukan jawaban anda
e. Berilah tanda silang (X) pada kotak disebelah kanan pernyataan sesuai dengan pilihan/kondisi sesungguhnya yang anda alami
f. Untuk setiap item pertanyaan, pilihan jawaban saudara adalah:
   **Tindak pernah (1), Kadang-kadang (2), Sering (3), Selalu (4)** dengan petunjuk sebagai berikut:
   - **Tidak Pernah (1):** tidak pernah dengan pernyataan tersebut
   - **Kadang-kadang (2):** kadang-kadang dengan pernyataan tersebut
   - **Serin (3)**: sering dengan pernyataan tersebut
   - **selalu (4)**: selalu dengan pernyataan tersebut

| NO | JENIS DUKUNGAN KELUARGA | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 1 | **Dukungan Emosional dan penghargaan**<br>1. Keluarga selalu mendampingi saya dalam pengobatan dan perawatan<br>2. Keluarga selalu memberi pujian dan perhatian kepada saya<br>3. Keluarga tetap mencintai danmemperhatikan keadaan saya selama saya sakit<br>4. Keluarga memaklumi bahwa sakit yang saya alami sebagai suatu musibah | | | | |
| 2. | **Dukungan Instrumental**<br>1. Keluarga selalu menyediakan waktu dan fasilitas jika saya memerlukan untuk keperluan pengobatan dan perawatan<br>2. Keluarga sangat berperan aktif dalam setiap pengobatan dan perawatan sakit saya<br>3. Keluarga bersedia membiayai perawatan dan pengobatan saya<br>4. Keluarga selalu berusaha untuk mencarikan kekurangan sarana dan peralatan perawatan yang saya perlukan | | | | |
| 3. | **Dukungan informasi**<br>1. Keluarga selalu memberitahu tentang hasil pemeriksaan dari tenaga kesehatan<br>2. Keluarga selalu mengingatkan saya untuk kontrol, minum obat, olahraga dan makan<br>3. Keluarga selau mengingatkan saya tentang perilaku-perilaku yang memperburuk penyakit saya<br>4. Keluarga selalu menjelaskan kepada saya setiap saya bertanya hal-hal yang tidak jelas tentang penyakit saya | | | | |

**Lampiran 12:**

**PANDUAN *FOCUS GROUP DISCUSSION* (FGD)**

Topik : Pengembangn Model *Health Literacy* Pencegahan Stroke Berbasis *Family Adaptive Behavior (FAB)* pada Suku Dayak di Kabupaten Kutai Barat Provinsi Kalimantan Timur.

Tujuan: Menggali kebutuhan masyarakat terkait pemecahan pencegahan Stroke Berbasis *Family Adaptive Behavior (FAB)*

Frekuensi : 1 kali

Tempat :

Waktu :

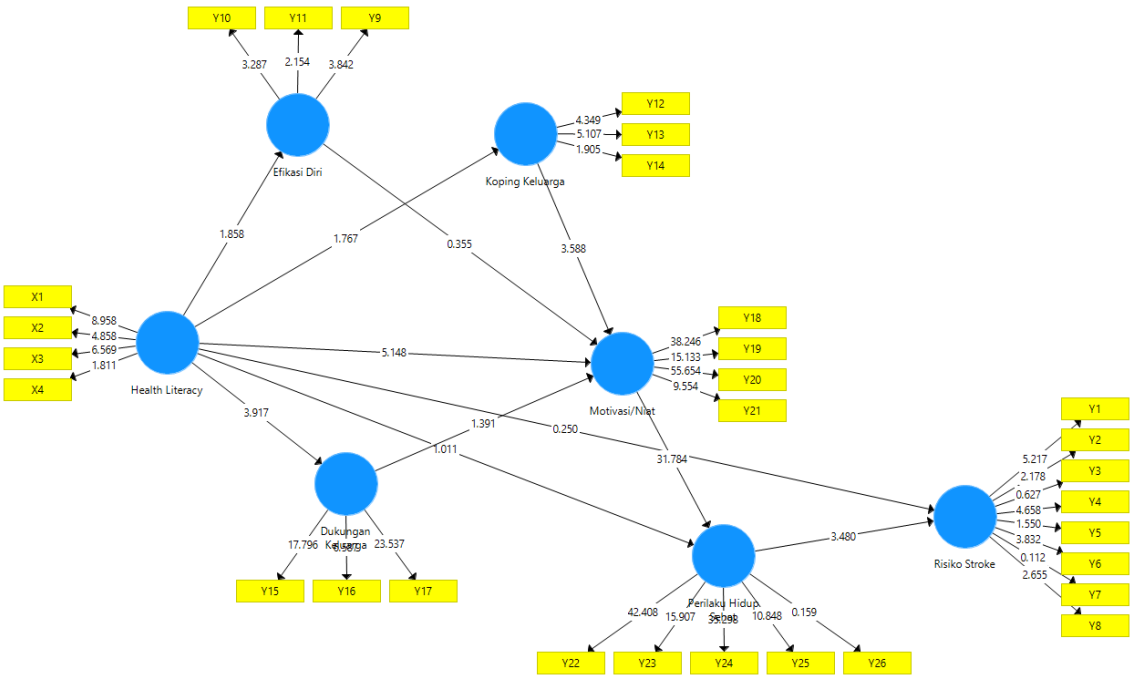
Desain petunjuk FGD

| | |
|---|---|
| Pembukaan: | |
| 1. | Memperkenalkan diri |
| 2. | Memberi penjelasan tujuan diadakan FGD |
| 3. | Meminta peserta memperkenalkan diri dan dengan cepat mengingat nama peserta dan menggunakannya pada waktu berbicara dengan peserta |
| 4. | Menjelaskan bahwa pertemuan ini tidak bertujuan untuk memberikan ceramah tetapi untuk mengumpulkan pendapat dan peserta. Tekankan bahwa fasilitator ingin belajar dari para peserta. |
| 5. | Menekankan bahwa fasilitator membutuhkan pendapat dari semua peserta dan sangat penting, sehingga diharapkan semua peserta bebas mengeluarkan pendapat. |
| 6. | Sambutan promotor/co-promotor |
| Diskusi: | |
| 1. | Pemaparan konsep Pencegahan Stroke Berbasis *Family Adaptive Behavior (FAB)* |
| 2. | Berikan pertanyaan umum memancing peserta mendiskusikan presentasi yang sudah dipaparkan. Pertanyaan di lemparkan ke group peserta. |
| 3. | Eksplorasi ide, gagasan dari peserta agar tujuan FGD tercapai dengan cara menanyakan pertanyaan yang lebih spesifik, meliputi:<br>*a.* Apa saja yang bapak/ibu ketehui tentang konsep pencegahan hipertensi Berbasis *Family Adaptive Behavior (FAB)*<br>b. Permasalahan apa saja yang sering dijumpai dan dapat meningkatkan |

| | |
|---|---|
| | risiko terkena stroke<br>c. Bagaimana kondisi kesehatan warga diwilayah bapak/ibu ?<br>d. Apa saja upaya yang sebaiknya dilakukan untuk pencegahan stroke?<br>e. Apa saja upaya yang sudah dilakukan untuk pencegahan stroke ?<br>f. Apa saja ide bapak/ibu untuk meningkatkan kewaspadaan masyarakat terkait stroke<br>g. Apakah ada variable atau komponen lain yang sekiranya cocok atau tepat ditambahkan untuk membuat konsep pencegahan hipertensi berbasis Family Adaptive Behavior (FAB) ? |
| 4. | Setiap pertanyaan di atas, dapat dikembangkan lebih lanjut tergantung pada jawaban yang diberikan peserta. |
| Penutup | |
| 1. | Kesimpulan hasil diskusi |
| 2. | Rencana tindaklanjut |

**Lampiran 13:**

**Hasil Uji Statistik SEM-PLS**




**Path Coefficients**

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| Dukungan Keluarga -> Niat | 0.254 | 0.256 | 0.095 | 2.676 | 0.008 |
| Efikasi Diri -> Niat | 0.036 | 0.024 | 0.135 | 0.269 | 0.788 |
| *Health Literacy* -> Dukungan Keluarga | 0.340 | 0.352 | 0.090 | 3.798 | 0.000 |
| *Health Literacy* -> Efikasi Diri | 0.201 | 0.223 | 0.098 | 2.049 | 0.043 |
| *Health Literacy* -> Koping Keluarga | 0.652 | 0.664 | 0.068 | 9.584 | 0.000 |
| *Health Literacy* -> Niat | -0.599 | -0.590 | 0.095 | 6.287 | 0.000 |
| *Health Literacy* -> Perilaku Hidup Sehat | 0.036 | 0.036 | 0.030 | 1.165 | 0.246 |
| *Health Literacy* -> Risiko Stroke | 0.217 | 0.224 | 0.087 | 2.506 | 0.013 |
| Koping Keluarga -> Niat | 0.309 | 0.302 | 0.101 | 3.065 | 0.003 |

| | | | | | |
|---|---|---|---|---|---|
| Niat -> Perilaku Hidup Sehat | 0.945 | 0.946 | 0.029 | 32.838 | 0.000 |
| Perilaku Hidup Sehat -> Risiko Stroke | 0.269 | 0.269 | 0.080 | 3.367 | 0.001 |

Outer Loadings

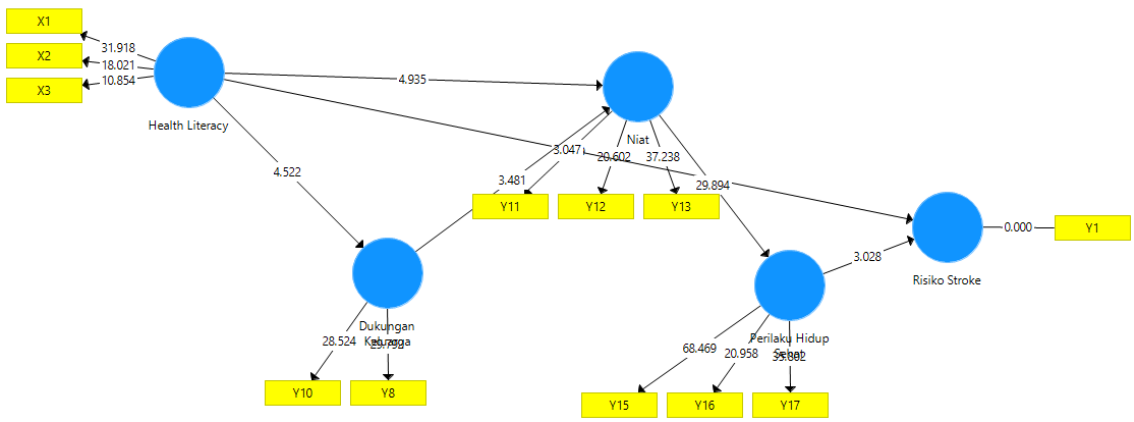
| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| X1 <- *Health Literacy* | 0.842 | 0.828 | 0.070 | 12.058 | 0.000 |
| X2 <- *Health Literacy* | 0.747 | 0.735 | 0.127 | 5.881 | 0.000 |
| X3 <- *Health Literacy* | 0.798 | 0.778 | 0.149 | 5.359 | 0.000 |
| X4 <- *Health Literacy* | 0.422 | 0.396 | 0.234 | 1.800 | 0.074 |
| Y1 <- Risiko Stroke | 1.000 | 1.000 | 0.000 | | |
| Y10 <- Dukungan Keluarga | 0.910 | 0.906 | 0.024 | 37.312 | 0.000 |
| Y11 <- Niat | 0.882 | 0.880 | 0.025 | 35.783 | 0.000 |
| Y12 <- Niat | 0.764 | 0.764 | 0.048 | 15.798 | 0.000 |
| Y13 <- Niat | 0.894 | 0.895 | 0.017 | 52.135 | 0.000 |
| Y14 <- Niat | 0.651 | 0.655 | 0.068 | 9.537 | 0.000 |
| Y15 <- Perilaku Hidup Sehat | 0.889 | 0.887 | 0.023 | 38.720 | 0.000 |

Construct Reliability and Validity

| | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|---|---|---|---|---|
| Dukungan Keluarga | 0.778 | 0.855 | 0.865 | 0.683 |
| Efikasi Diri | 0.723 | 0.847 | 0.836 | 0.640 |
| *Health Literacy* | 0.678 | 0.736 | 0.804 | 0.521 |
| Koping Keluarga | 0.470 | 0.504 | 0.718 | 0.473 |
| Niat | 0.812 | 0.831 | 0.878 | 0.647 |
| Perilaku Hidup Sehat | 0.701 | 0.840 | 0.812 | 0.524 |
| Risiko Stroke | 1.000 | 1.000 | 1.000 | 1.000 |

**After Variable and Indicator Elimination**

**SEM-PLS Model**



**Path Coefficients**

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| Dukungan Keluarga -> Niat | 0.273 | 0.270 | 0.078 | 3.503 | 0.001 |
| *Health Literacy* -> Dukungan Keluarga | 0.355 | 0.351 | 0.081 | 4.413 | 0.000 |
| *Health Literacy* -> Niat | -0.406 | -0.399 | 0.057 | 7.090 | 0.000 |
| *Health Literacy* -> Risiko Stroke | 0.228 | 0.223 | 0.079 | 2.889 | 0.006 |
| Niat -> Perilaku Hidup Sehat | 0.941 | 0.945 | 0.030 | 31.791 | 0.000 |
| Perilaku Hidup Sehat -> Risiko Stroke | 0.266 | 0.258 | 0.090 | 2.953 | 0.005 |

Outer loadings

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| X1 <- *Health Literacy* | 0.869 | 0.869 | 0.036 | 23.893 | 0.000 |
| X2 <- *Health Literacy* | 0.821 | 0.825 | 0.045 | 18.228 | 0.000 |
| X3 <- *Health Literacy* | 0.733 | 0.723 | 0.065 | 11.295 | 0.000 |
| Y1 <- Risiko Stroke | 1.000 | 1.000 | 0.000 | | |
| Y10 <- Dukungan Keluarga | 0.904 | 0.901 | 0.029 | 31.620 | 0.000 |
| Y11 <- Niat | 0.922 | 0.924 | 0.016 | 58.334 | 0.000 |
| Y12 <- Niat | 0.811 | 0.810 | 0.039 | 20.836 | 0.000 |
| Y13 <- Niat | 0.872 | 0.872 | 0.027 | 32.389 | 0.000 |
| Y15 <- Perilaku Hidup Sehat | 0.924 | 0.926 | 0.014 | 64.810 | 0.000 |
| Y16 <- Perilaku Hidup Sehat | 0.820 | 0.820 | 0.038 | 21.312 | 0.000 |
| Y17 <- Perilaku Hidup Sehat | 0.860 | 0.857 | 0.027 | 32.390 | 0.000 |
| Y8 <- Dukungan Keluarga | 0.894 | 0.899 | 0.030 | 29.484 | 0.000 |

Construct Reliability and Validity

| | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|---|---|---|---|---|
| Dukungan Keluarga | 0.763 | 0.765 | 0.894 | 0.809 |
| *Health Literacy* | 0.733 | 0.733 | 0.850 | 0.655 |
| Niat | 0.837 | 0.838 | 0.902 | 0.756 |
| Perilaku Hidup Sehat | 0.837 | 0.842 | 0.902 | 0.756 |
| Risiko Stroke | 1.000 | 1.000 | 1.000 | 1.000 |

**Lampiran 14:**

## Hasil Uji Statistik SPSS

Uji Pre-Test dan Post-Test Pada Kelompok Perlakuan

### Tests of Normality

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Health_Literacy_Pretest | .095 | 50 | .200* | .977 | 50 | .429 |
| Health_Literacy_PostTest | .133 | 50 | .099 | .961 | 50 | .027 |

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Tests of Normality

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Kat_Risiko_Stroke_Post | .286 | 50 | .000 | .759 | 50 | .000 |
| Kat_Risiko_Stroke_Pre | .256 | 50 | .000 | .792 | 50 | .000 |
| Kat_Dukungan_Keluarga_Post | .515 | 50 | .000 | .412 | 50 | .000 |
| Kat_Dukungan_Keluarga_Pre | .391 | 50 | .000 | .622 | 50 | .000 |
| Kat_Minat_Niat_Post | .480 | 50 | .000 | .511 | 50 | .000 |
| Kat_Minat_Niat_Pre | .360 | 50 | .000 | .634 | 50 | .000 |
| Kat_Perilaku_Hidup_Sehat_Post | .471 | 50 | .000 | .530 | 50 | .000 |
| Kat_Perilaku_Hidup_Sehat_Pre | .380 | 50 | .000 | .627 | 50 | .000 |

a. Lilliefors Significance Correction

### Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Health_Literacy_Pretest | 35.54 | 50 | 7.418 | 1.049 |
| | Health_Literacy_PostTest | 38.56 | 50 | 6.513 | .921 |

### Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | Health_Literacy_Pretest - Health_Literacy_PostTest | -3.020 | 2.299 | .325 | -3.673 | -2.367 | -9.289 | 49 | .000 |

**Ranks**

| | | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Kat_Risiko_Stroke_Post - Kat_Risiko_Stroke_Pre | Negative Ranks | 28[a] | 16.00 | 448.00 |
| | Positive Ranks | 3[b] | 16.00 | 48.00 |
| | Ties | 19[c] | | |
| | Total | 50 | | |
| Kat_Dukungan_Keluarga_Post - Kat_Dukungan_Keluarga_Pre | Negative Ranks | 2[d] | 9.00 | 18.00 |
| | Positive Ranks | 15[e] | 9.00 | 135.00 |
| | Ties | 33[f] | | |
| | Total | 50 | | |
| Kat_Minat_Niat_Post - Kat_Minat_Niat_Pre | Negative Ranks | 0[g] | .00 | .00 |
| | Positive Ranks | 16[h] | 8.50 | 136.00 |
| | Ties | 34[i] | | |
| | Total | 50 | | |
| Kat_Perilaku_Hidup_Sehat_Post - Kat_Perilaku_Hidup_Sehat_Pre | Negative Ranks | 0[j] | .00 | .00 |
| | Positive Ranks | 17[k] | 9.00 | 153.00 |
| | Ties | 33[l] | | |
| | Total | 50 | | |

a. Kat_Risiko_Stroke_Post < Kat_Risiko_Stroke_Pre

b. Kat_Risiko_Stroke_Post > Kat_Risiko_Stroke_Pre

c. Kat_Risiko_Stroke_Post = Kat_Risiko_Stroke_Pre

d. Kat_Dukungan_Keluarga_Post < Kat_Dukungan_Keluarga_Pre

e. Kat_Dukungan_Keluarga_Post > Kat_Dukungan_Keluarga_Pre

f. Kat_Dukungan_Keluarga_Post = Kat_Dukungan_Keluarga_Pre

g. Kat_Minat_Niat_Post < Kat_Minat_Niat_Pre

h. Kat_Minat_Niat_Post > Kat_Minat_Niat_Pre

i. Kat_Minat_Niat_Post = Kat_Minat_Niat_Pre

j. Kat_Perilaku_Hidup_Sehat_Post < Kat_Perilaku_Hidup_Sehat_Pre

k. Kat_Perilaku_Hidup_Sehat_Post > Kat_Perilaku_Hidup_Sehat_Pre

l. Kat_Perilaku_Hidup_Sehat_Post = Kat_Perilaku_Hidup_Sehat_Pre

**Test Statistics[a]**

| | Kat_Risiko_Stroke_Post - Kat_Risiko_Stroke_Pre | Kat_Dukungan_Keluarga_Post - Kat_Dukungan_Keluarga_Pre | Kat_Minat_Niat_Post - Kat_Minat_Niat_Pre | Kat_Perilaku_Hidup_Sehat_Post - Kat_Perilaku_Hidup_Sehat_Pre |
|---|---|---|---|---|
| Z | -4.490[b] | -3.153[c] | -4.000[c] | -4.123[c] |
| Asymp. Sig. (2-tailed) | .000 | .002 | .000 | .000 |

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

Uj Lanjutani Mc Nemar

**Kat_Dukungan_Keluarga_Pre & Kat_Dukungan_Keluarga_Post**

| Kat_Dukungan_Keluarga_Pre | Kat_Dukungan_Keluarga_Post | |
|---|---|---|
| | Kurang Baik | Baik |
| Kurang Baik | 5 | 15 |
| Baik | 2 | 28 |

**Kat_Minat_Niat_Pre & Kat_Minat_Niat_Post**

| | Kat_Minat_Niat_Post | |
|---|---|---|
| Kat_Minat_Niat_Pre | Kurang Baik | Baik |
| Kurang Baik | 11 | 16 |
| Baik | 0 | 23 |

**Kat_Perilaku_Hidup_Sehat_Pre & Kat_Perilaku_Hidup_Sehat_Post**

| Kat_Perilaku_Hidup_Sehat_Pre | Kat_Perilaku_Hidup_Sehat_Post | |
|---|---|---|
| | Kurang Baik | Baik |
| Kurang Baik | 12 | 17 |
| Baik | 0 | 21 |

**Test Statistics[a]**

| | Kat_Dukungan_Keluarga_Pre & Kat_Dukungan_Keluarga_Post | Kat_Minat_Niat_Pre & Kat_Minat_Niat_Post | Kat_Perilaku_Hidup_Sehat_Pre & Kat_Perilaku_Hidup_Sehat_Post |
|---|---|---|---|
| N | 50 | 50 | 50 |
| Exact Sig. (2-tailed) | .002[b] | .000[b] | .000[b] |

a. McNemar Test

b. Binomial distribution used.

Uji Lanjutan Friedman

**Ranks**

| | Mean Rank |
|---|---|
| Kat_Risiko_Stroke_Post | 1.25 |
| Kat_Risiko_Stroke_Pre | 1.75 |

**Test Statistics[a]**

| | |
|---|---|
| N | 50 |
| Chi-Square | 20.161 |
| Df | 1 |
| Asymp. Sig. | .000 |

a. Friedman Test

Uji Pre-Test dan Post-Test Pada Kelompok Kontrol

**Tests of Normality**

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Health_Literacy_Pretest | .086 | 50 | .200* | .967 | 50 | .170 |
| Health_Literacy_PostTest | .095 | 50 | .200* | .955 | 50 | .055 |
| Kat_Risiko_Stroke_Post | .221 | 50 | .000 | .809 | 50 | .000 |
| Kat_Risiko_Stroke_Pre | .231 | 50 | .000 | .810 | 50 | .000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Kat_Dukungan_Keluarga_Post | .360 | 50 | .000 | .634 | 50 | .000 |
| Kat_Dukungan_Keluarga_Pre | .370 | 50 | .000 | .632 | 50 | .000 |
| Kat_Minat_Niat_Post | .451 | 50 | .000 | .562 | 50 | .000 |
| Kat_Minat_Niat_Pre | .431 | 50 | .000 | .588 | 50 | .000 |
| Kat_Perilaku_Hidup_Sehat_Post | .349 | 50 | .000 | .636 | 50 | .000 |
| Kat_Perilaku_Hidup_Sehat_Pre | .380 | 50 | .000 | .627 | 50 | .000 |

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Health_Literacy_Pretest | 31.34 | 50 | 7.289 | 1.031 |
| | Health_Literacy_PostTest | 31.40 | 50 | 7.228 | 1.022 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | Health_Literacy_Pretest - Health_Literacy_PostTest | -.060 | .314 | .044 | -.149 | .029 | -1.353 | 49 | .182 |

**Ranks**

| | | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Kat_Risiko_Stroke_Post - Kat_Risiko_Stroke_Pre | Negative Ranks | 2[a] | 3.00 | 6.00 |
| | Positive Ranks | 3[b] | 3.00 | 9.00 |
| | Ties | 45[c] | | |

| | | | | |
|---|---|---|---|---|
| | Total | 50 | | |
| Kat_Dukungan_Keluarga_Post - Kat_Dukungan_Keluarga_Pre | Negative Ranks | 2[d] | 3.00 | 6.00 |
| | Positive Ranks | 3[e] | 3.00 | 9.00 |
| | Ties | 45[f] | | |
| | Total | 50 | | |
| Kat_Minat_Niat_Post - Kat_Minat_Niat_Pre | Negative Ranks | 5[g] | 4.50 | 22.50 |
| | Positive Ranks | 3[h] | 4.50 | 13.50 |
| | Ties | 42[i] | | |
| | Total | 50 | | |
| Kat_Perilaku_Hidup_Sehat_Post - Kat_Perilaku_Hidup_Sehat_Pre | Negative Ranks | 6[j] | 4.00 | 24.00 |
| | Positive Ranks | 1[k] | 4.00 | 4.00 |
| | Ties | 43[l] | | |
| | Total | 50 | | |

a. Kat_Risiko_Stroke_Post < Kat_Risiko_Stroke_Pre

b. Kat_Risiko_Stroke_Post > Kat_Risiko_Stroke_Pre

c. Kat_Risiko_Stroke_Post = Kat_Risiko_Stroke_Pre

d. Kat_Dukungan_Keluarga_Post < Kat_Dukungan_Keluarga_Pre

e. Kat_Dukungan_Keluarga_Post > Kat_Dukungan_Keluarga_Pre

f. Kat_Dukungan_Keluarga_Post = Kat_Dukungan_Keluarga_Pre

g. Kat_Minat_Niat_Post < Kat_Minat_Niat_Pre

h. Kat_Minat_Niat_Post > Kat_Minat_Niat_Pre

i. Kat_Minat_Niat_Post = Kat_Minat_Niat_Pre

j. Kat_Perilaku_Hidup_Sehat_Post < Kat_Perilaku_Hidup_Sehat_Pre

k. Kat_Perilaku_Hidup_Sehat_Post > Kat_Perilaku_Hidup_Sehat_Pre

l. Kat_Perilaku_Hidup_Sehat_Post = Kat_Perilaku_Hidup_Sehat_Pre

**Test Statistics[a]**

| | Kat_Risiko_Stroke_Post - Kat_Risiko_Stroke_Pre | Kat_Dukungan_Keluarga_Post - Kat_Dukungan_Keluarga_Pre | Kat_Minat_Niat_Post - Kat_Minat_Niat_Pre | Kat_Perilaku_Hidup_Sehat_Post - Kat_Perilaku_Hidup_Sehat_Pre |
|---|---|---|---|---|
| Z | -.447[b] | -.447[b] | -.707[c] | -1.890[c] |
| Asymp. Sig. (2-tailed) | .655 | .655 | .480 | .059 |

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

c. Based on positive ranks.

**Lampiran 15:**

**Dokumentasi Kegiatan**


Sesi FGD dengan Informan


Uji Coba Aplikasi Parelapps.id


Uji Coba Aplikasi Parelapps.id Dengan Zoom Oleh Tim Promotor

Sesi Deep interview dengan informan (Pasien dan Keluarga)

**Lampiran 16 :**

**Publikasi Artikel Penelitian 1**

Original Article

# Adaptive Family-Based Stroke Prevention in Communities: A Systematic Review

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## Abstract

Objective: this study aimed to identify a stroke prevention model with a family approach.

Methods: this systematic review is based on the 2015 Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guideline. Articles were obtained from the PubMed and Google Scholar databases. Each article was assessed using eight criteria from the Strengthening the Reporting of Observational studies in Epidemiology (STROBE): sample size, sampling technique, response rate, outcome measures, statistical analysis, use of confounding, study limitations, and ethical considerations. 8 out of 2065 articles were used to develop this study.

Results: family support plays an important role in shaping stroke prevention behavior, both primary and secondary, through risk factor management and knowledge provision.

Conclusions: family support is one of the approaches to stroke prevention in reducing the burden of stroke. Stroke prevention by the family can be achieved by educating patients about stroke and providing support and encouragement for risk factor management.

**Keywords:** stroke, prevention, family, knowledge, risk factor.

## Introduction

Stroke is the second leading cause of death in the world with a rate of 85%, mostly in low- and middle-income countries.1 Cardiovascular disease and poor lifestyle are risk factors for stroke.2,3 Poor habits contribute 90% to the incidence of stroke.4 Long recovery time and high cost of stroke treatment become an economic burden for the patient, the patient's family and the country.5–7

The burden of stroke increases if there is a relapse. Patients with stroke have a high risk of recurrent stroke.8 The number of recurrent strokes increases with the length of time, which is around 3-40%.5 Primary and secondary prevention of stroke is needed to reduce the burden of stroke.8

Primary prevention is carried out by adopting a healthy lifestyle and identifying and managing risk factors.9 Meanwhile, secondary prevention is carried out by modifying modifiable risk factors, antiplatelet therapy for non-cardioembolic ischemic stroke, anticoagulation for cardioembolic stroke, and intervention for symptomatic carotid stenosis.10 Optimal secondary prevention therapy can prevent recurrent stroke by up to 80%.11

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This shows that stroke can be prevented by planning and implementing the best strategies.12 Social support from family has a positive effect on disease prevention and self-management.13

Family caregivers can improve medication adherence, diet, and alertness in routine control.14 The Family Adaptive Behavior model is an effective model for implementing family-based stroke prevention strategy. This model is built upon the principle that families can to adapt to various stimuli that may affect the health of family members.15 Support and knowledge from the family can motivate patients at risk of stroke to commit to prevention.16 Therefore, this study aimed to identify an adaptive family-based stroke prevention model.

## Methods

### Search Strategy

This systematic review referred to the 2020 Preferred Reporting Items for Systematic Review and Meta Analysis (PRISMA) guideline.17 The literature sources were the PubMed and Google Scholar databases. The search included worldwide research published in 2011-2022. Articles retrieved from each database were imported into Mendeley. The combination of keywords used in the search was "stroke". "prevention", "family", and "risk factors".

### Inclusion and Exclusion

The inclusion criteria of the article were (a) the study sample was stroke patients or families of patients at risk of stroke; (b) discussing the role of the family in the prevention of stroke; (c) quantitative research; (d) written in English; and (e) published from July 2011-July 2022.

### Data Extraction

The extracted data were variables related to the role of the family in preventing the incidence of stroke. All articles were imported into Mendeley and duplication selection was performed and followed by reading the title and abstract. The appropriate articles were further selected based on the inclusion and exclusion criteria. Selected articles were re-sorted by reading the entire contents of the article. Selected articles were included in the synthesis table.

### Quality Assessment

The STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) was used to assess the reviewed studies. Of the 22 STROBE assessment items, 8 items were taken, namely: description of sample size, description of sample methodology, response rate calculation, outcome measurement, description of statistical analysis, confounding control, description of study limitations, and research ethics. The study quality categories were measured based on the number of items met. Each item met was given a score of 1. The overall scores were added up to determine the quality of the studies. The study quality was categorized into poor (0-3), moderate (4-6), and good (7-8).18 Articles that are included in the good category can be assessed further.

## Results

A total of 2065 articles were gathered from PubMed and Google Scholar. 1050 articles obtained after deleting duplicate articles. After title screening, 1012 articles were excluded. Furthermore, 15 articles were excluded after reading the abstracts. Finally, 8 articles were obtained to compose this systematic review. The table shows a summary of the studies; 4 studies in America, 3 studies in Asia, and 1 study in Africa. The sample size ranged from 160 to 1259 participants and all studies were rated of moderate to good quality. The collected studies showed that family support played an important role in shaping stroke prevention behavior both primary and secondary through risk factor management and improving knowledge.

Table 1. Summary of Selected Studies and Conclusions of Research Results

| No. | Author, Year, Country | Study Design | Sample | Journal Name | Intervention Method | Quality Assessment | Finding |
|---|---|---|---|---|---|---|---|
| 1. | (Cabral et al, 2012)<br><br>Brazil / USA | Randomized clinical trial | 594 stroke patients | *American Journal of Public Health* | FHP intervention (*Family Health Program*) with visits from health workers, checking medical history, and making workshops | 6 | Patients in the FHP group had a lower incidence of stroke (30.1%) than the non-FHP group (36.2%). |
| 2. | (Kronish et al, 2014)<br><br>New York / | Randomized clinical trial | 600 stroke patients or TIA | Stroke | Peer education interventions, weekly 6-week workshops with a chronic disease self-management | 6 | The proportion of controlled blood pressure was greater and there was a significant decrease in systolic blood pressure |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | USA | | | | program model | | in the intervention group (P=0,04). |
| 3. | (He et al, 2015)<br><br>China / Asia | Randomized clinical trial | 279 5th graders | BMJ | Intervention: creating curriculum and education on salt reduction | 7 | The education program was effective in reducing salt intake in children and their families with the mean salt intake in the intervention versus control group being 1.9 g/day versus 2.9 g/day after being given the education program. |
| 4. | (Komolafe et al, 2020)<br><br>Nigeria / Afrika | Randomized clinical trial | 1259 adolescents | Journal of Stroke and Cerebrovascular Disease | Intervention: providing education on understanding, risk factors, symptoms, and appropriate responses for stroke patients | 7 | Stroke education was effective in forming awareness to prevent stroke in adolescent school children. Knowledge score in the intervention group was higher than the control group. |
| 5. | (An et al, 2018)<br><br>USA | Randomized clinical trial | 160 people aged ≥65 years | Journal of Neuroscience Nursing | Intervention: educational programs and discussions on stroke knowledge and lifestyle changes | 6 | Primary stroke prevention is effective for improving stroke knowledge and the number of steps and reducing the amount of sodium and fat consumption. |
| 6. | (Menkin et al, 2019)<br><br>USA | Randomized clinical trial | 233 adults aged ≥60 years | American Heart Association | Intervention: Education on stroke prevention and promotion of walking | 6 | Increase in the average number of daily steps, fluctuating in nature but there is an increase in stroke preparedness ($p<0.001$). |
| 7. | (Choi et al, 2015)<br><br>Hong Kong / Asia | Cohort | 577 ischemic stroke patients | Hong Kong Medical Journal | Intervention: Secondary stroke prevention program | 5 | The stroke prevention program could significantly reduce systolic blood pressure, glycated hemoglobin levels, and LDL levels in the control group. |
| 8. | (Kurniawati et al, 2016)<br><br>Indonesia / Asia | Cross-sectional | 165 stroke patients | Indonesian conference in clinical pharmacy | Identifying the level of adherence to taking medication | 6 | Lack of family support (8.8%) is the fourth most common reason for non-adherence to taking medication. |

## Discussion

Stroke is a disease that warrants special attention because of its burden and impact. Individuals with a high risk of stroke and their family members need to receive information about risk factor management strategies.19 The stream of motivation and support from experienced people, family members and health workers can facilitate the implementation of stroke prevention.16 The family is the closest environment of the individual, thus, it can play a major role in influencing health.

The Family Health Program is a program with a family and

community approach in which health workers provide comprehensive care.20 Family health programs can reduce the risk of stroke recurrence and death to a minimum of two visits a year.12 The activities carried out are monthly visits to high-risk patients by health workers, checking family members' medical history regularly and conducting workshops on chronic disease management guidelines to bolster knowledge.12 Better knowledge can improve individual awareness to reduce stroke risk by changed behavior.

Menkin et al conducted a randomized clinical trial with interventions in the form of promoting the benefits of walking and the dangers of stroke as well as monitoring walking activities and telephone reminders. The results of this study showed that the intervention group had a better daily walking score change than the control group. In addition, the frequency of calling 911 when stroke symptoms occurred was increasing in the intervention group. This suggests that there is a continuous improvement in stroke preparedness.21 Physical activity independently reduces the risk of stroke and lowers other cardiovascular risk factors.22,23 It is more likely for an individual to modify their lifestyle such as physical activity and dietary habit when encouragement from the family is present.4

The study by An et al (2018) reported that there was a decrease in sodium and total fat intake after being given education about stroke and lifestyle changes. The intervention group showed a greater increase in stroke knowledge and a decrease in sodium and total fat consumption.24 Knowledge can motivate and empower patients so that patients can determine the right way of self-control, adopt a healthy lifestyle, pharmacological choices, psychosocial adjustments due to chronic illness, and utilize resources to increase knowledge.3 Families with good knowledge can practice good health behaviors as early as possible.3 This is supported by the study of Jiang et al who reported that health behaviors were correlated with family communication. Improved communication encourages the formation of good health behavior.25

One approach to improve secondary stroke prevention behavior is to take advantage of the role of peer educators, such as families. Peer educators are public health workers or people who are trusted and respected as members of the community according to the culture and language of the target population. The study by Kronish et al (2014) reported that there was a significant change in systolic blood pressure in the intervention group after being provided intervention by peer educators.26

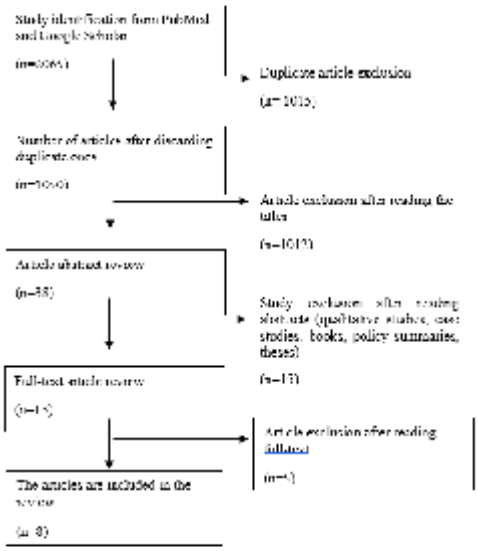


Chart 1. Article Selection Flowchart

Stroke prevention with a family approach can also be applied at the school level. Komolafe's et al study showed that subjects in the intervention group had a higher and statistically significant knowledge score where the increase in score was in line with increased knowledge and awareness about stroke.27 Providing education about salt or natrium intake and its effect on cardiovascular can reduce the level of salt consumption in children and adults.28 The reduction in salt intake was accompanied by a significant reduction in systolic blood pressure in adults. Meta-analyses reported that a 1 g/day reduction in salt intake could reduce systolic blood pressure by about 1 mmHg.29 A low-salt diet since childhood can reduce the increase in blood pressure with age, thus preventing the occurrence of high blood pressure and cardiovascular disease in later life.28-33

## Conclusions

Family support is one approach to stroke prevention in order to reduce the burden of stroke. Stroke prevention by the family can be done through providing education about stroke and support and encouragement for risk factor management. The weakness of this systematic review is that there are not many observational or experimental studies to support this study. Therefore, research on stroke prevention with a family approach needs to be encouraged.

### Conflicts of Interest

The author declares there is no conflict of interest.

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# Identification of Family Adaptive Behavior in The Dayak Tribe in An Effort to Prevent Stroke

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**ABSTRACT**

The Dayak tribe inhabits a large part of West Kutai Regency, East Kalimantan Province. Hypertension is a major health problem in the West Kutai region. The family plays a role as a facilitator in reducing hypertension and preventing the risk of Stroke in family members. The purpose of this study was to identify the adaptive behavior of Dayak families in an effort to prevent Stroke. This research method is qualitative research with in-depth interviews and FGD (focus group discussion). FGDs were conducted on 7 participants with tingkat 1 and tingkat 2 hypertension patients and 3 people from traditional leaders/ culturalists. This study obtained four main themes, namely 1) Understanding health problems, 2) Utilization of medicinal plants, 3) Disease control, 4) Driving factors in reducing Stroke risk. Suggestions for health workers to be able to improve educational methods and digital health promotion not only using print media.

**Key words:** The Dayak Tribe, Stroke, FGD, Family Adaptive Behavior.

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## INTRODUCTION

Based on health workers' diagnosis, the prevalence of stroke in Indonesia is 12.1 per mil in the population aged 15 years and over. Further, the prevalence of stroke in rural areas based on health workers' diagnoses is 11.4 per mile.[1] Data from Basic Health Research in 2018 shows that the highest prevalence of Stroke (per mile) based on a doctor's diagnosis is in East Kalimantan Province of 14.7 per mile.

Burden of disease due to stroke increases substantially because recurrence rate remains high. The American National Stroke Association shows that the number of recurrent strokes one month after the first stroke attack ranges from 3-10%. After one year it increases to 5-14%, and after 5 years it becomes 25-40%.[2] In Indonesia, recurrence of stroke one year after the first stroke attack is around 19.9%. After five years it increases 24% in women and 42% in men for all age groups. The increase in the number of stroke patients and their long-term care is causing a significant economic burden on the health care system.

Stroke care and treatment requires direct and indirect costs. Health financing prepared by the government through BPJS Health Insurance will not be sufficient if non-communicable diseases such as stroke are not controlled. The number of National Health Insurance-Indonesian Health Card (JKN-KIS) participants has increased, otherwise BPJS Health Insurance has experienced a deficit in financing public treatment.

The Dayak tribe inhabits a large part of West Kutai Regency, East Kalimantan Province which consists of 19 sub-districts. Data on Noncommunicable Diseases (NCDs) in West Kutai Regency recorded that hypertension sufferers ranked at the first place with 5,121 cases.[3] The number of hypertension sufferers in 2020 was 243 cases and in 2021 it increased to 451 cases.

A stroke is a life-threatening condition that happens when hypertension occurs together with lack of understanding and public awareness about prevention of stroke due to that hypertension. The results of a preliminary study that researchers conducted in the work area of the Sekolaq Darat Health Center, West Kutai Regency, through interviewing seven people, namely three people with hypertension level one, two with hypertension level two, and two stroke sufferers in January 2022, obtained information that cassava is the main food for most sufferers besides rice. This typical carbohydrate is consumed with vegetables obtained from concocting cassava leaves, jereng leaves, vinegar leaves, rumidang leaves. Meat consumption is obtained from hunting or raising animals.

Health office in West Kutai Regency, especially the Sekolaq Darat Health Center, has carried out a program to treat stroke risk factors through integrated development posts. In practice, this activity has not been maximized in increasing public awareness. This is because many people do not control their blood pressure regularly at the Integrated Development Post (Posbindu) or at the Public Health Center. People who have been diagnosed with hypertension do not feel the need to go for a check-up because they do not feel any symptoms of hypertension and consider themselves healthy. Based on these problems, it is necessary to take a different approach to increase awareness of healthy living in people with high risk of stroke. The appropriate approach is through their family (the family approach).

Kurniawati, *et al* (2020)[4] said that appropriate support is needed as the main support source, namely

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the family support. The family acts as a facilitator in preventing the risk of stroke in family members, ensuring that anti-hypertensive drugs are taken regularly and providing emotional support.[4] Families need to be optimally empowered in preventing and guiding family members to adapt to their health conditions, so high quality of life can be achieved. To reach that goal, family knowledge about stroke and skills in helping patients adapt must be improved. Family empowerment-based adaptation model intervention is a strategy to improve the adaptability and quality of life of post-stroke patients through family empowerment efforts.[5] Therefore, this study aims to identify the adaptive behavior of the Dayak family in an effort to prevent stroke.

## RESEARCH METHOD

This research was conducted in the area of West Kutai Regency. Based on data from the West Kutai Regency Health Office, it was recorded that hypertension sufferers ranked at the first place in East Kalimantan in 2021 with 5,121 cases. This research was conducted qualitatively with in-depth interviews and FGD (focus group discussion). Focus Group Discussion (FGD) is a data collection technique in qualitative research which is frequently used to find the meaning of a theme and gain an in-depth understanding of social issues.

The Focus Group Discussion (FGD) was conducted on seven participants, consisting of level one and level two hypertension sufferers as well as two people from traditional leaders/culturalists. The FGD was conducted once. The researchers organized in depth-interviews for participants who were not present during the FGD to obtain information related to hypertension prevention in patients with hypertension levels one and two. In-depth interviews were also conducted with two health workers holding Noncommunicable Diseases (NCDs) programs.

Equipment used during the study are stationary (books and pen), recorder, and digital camera. The research results were analyzed using NVivo 12 plus. This research has received research ethics approval from the Faculty of Public Health, Hasanuddin University with ethical number 9297/UN4.14.1/TP.01.02/2022.

## RESULTS

The results of the study identified the adaptive behavior of the Dayak family as an effort to prevent stroke, which can be seen in the table 1.

### Understanding health problems

**Prevention**: The results of the interviews showed that the informants understood and knew about the concept of stroke prevention, including: routinely checking blood pressure, managing diet, not smoking, drinking less coffee. Following are the excerpts related to these findings:

*"Stroke prevention can be done by checking blood pressure every month, managing food, reducing fatty and salty foods" (Informant)*

**Table 1: Theme matrix.**

| Theme | Sub-Theme |
|---|---|
| Understanding Health Problems | Prevention |
| | Risk Habits |
| | Disease Distribution |
| Utilization of Medicinal Plants | Herbs Consumption |
| | Local Wisdom |
| Disease Control | Health Education and Promotion |
| Driving Factors in Reducing Stroke Risk | Family Support |
| | Utilization of Health Facilities |
| | Social Support |

*"The way to prevent stroke is by reducing drinking coffee and smoking, reducing fatty and salty foods" (Culture Practitioners and Traditional Leaders)*

**Risky habits:** The results of the interviews revealed that the informants can understand habits which increase the risk of stroke. Those are the habit of consuming salty and fatty foods such as salted pork, not checking health condition regularly at the Public Health Center, consuming coffee in the morning as a substitute for having breakfast, smoking, drinking alcohol at every traditional event. The following are the excerpts related to these findings:

*"Here, we have a habit of consuming dried pork and then salted food like salted fish, then we rarely go to the health center for checking our health condition if we are not sick" (Informant)*

This excerpt is reinforced by statements from NCDs program holders at the Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center, the following is the statement:

*"People here like to eat high-fat and salty foods, such as salted fish and beef jerky. In addition, they have high smoking habits and they usually do it along with drinking coffee. In fact, drinking coffee and smoking is used as a morning habit as a substitute for breakfast. They also rarely control their health at the health center if they are not already feeling sick (Barong Tongkok Public Health Center)*

*"Yes Sir, here the Dayak people really like to eat salted pork. This dish is usually used as the main menu for several days. Sometimes the processed salted pork is burned, made into chili sauce, or so on" (Sekolaq Darat Public Health Center)*

Furthermore, traditional leaders also conveyed that the Dayak people often consume alcohol at traditional events

*"...When there is a traditional event, we usually drink alcohol, sir" (Culture Practitioners and Traditional Leader)*

**Disease distribution:** In relation to disease distribution, the results of the interviews showed that the informants acknowledged and recognized health conditions in their area. The most common health problems in the Kutai area are hypertension, stroke, gout, cholesterol, diabetes mellitus (DM). The following are excerpts related to these findings:

*"In my opinion, many people here suffer from high blood pressure; some have strokes, high cholesterol, and gout" (Informant).*

*"Here, there are many people endure strokes, diabetes mellitus (DM), high blood pressure too, Sir" (Cultural Practitioner and Traditional Leaders).*

NCDs program holders from the Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center also stated the same opinion, the exact statement is shown as follows:

*"Here the highest NCDs cases are hypertension, maybe because of their habit of liking salty food. Then the second case is high cholesterol, DM and stroke respectively" (Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center).*

### Utilization of medicinal plants

**Herbs consumption:** From the interviews, the researchers got the insight that the Dayak people took preventive measures of stroke by consuming herbal medicines from plants such as bay leaves, red ginger, *sembung* leaves, celery leaves, *bajaka* roots, and Dayak onions. The following are excerpts related to these findings:

*"I usually consume boiled water from bay leaves or sembung leaves. Sometimes I also drink red ginger, bajaka root water, and Dayak onions"* (Informant).

*"We here tend to take indigenous herbal drink of the Dayak tribe such as Dayak onions, bajaka root water collected from the forest"* (Cultural Practitioners and Traditional Leaders).

*"People like to consume herbal medicines such as Dayak onions, water from Bajaka root, decoction of the leaves (salam, sembung etc.)"* (Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center).

**Local wisdom:** The results of the interviews revealed that the Dayak people had local wisdom as their effort to maintain their health, namely the use of herbal plants by drinking boiled water from the leaves such as bay leaves. In addition, they use to take a walk when they are going to the garden. The following are excerpts related to these findings:

*"Yes, we take herbal medicine. We boiled bay leaves and then we drink the water. We do it the same thing to red ginger and Dayak onions. However, for bajaka root water, we usually drink it directly. We collect water from bajaka roots in the forest. We usually practice sport by taking a walk to the forest or to the garden."* (Informant, Cultural Practitioners, and Traditional Leaders).

### Disease control

**Health education and promotion:** From the interviews, the researchers interpreted the result and found that the efforts carried out for stroke control are education and health promotion. The following are excerpts related to these findings:

*"The public health center has provided directions or counseling to the community and remind people to check health condition consistently at Integrated Development Post (Posbindu) every month"* (Informant, Cultural Practitioners, and Traditional Leaders).

*"We usually conduct direct education to patients, families, and the community, distributing leaflets and educational materials related to diet, eating less salty food, cassava shoots accompanied by salted fish"* (Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center).

### Driving factors in reducing stroke risk

**Family support:** From the interview session, the researchers concluded that the first driving factor in reducing the risk of stroke is family support. One of Dayak people's behavior is very supportive when their family member gets sick. The following are excerpts related to these findings:

*"Families like to remind them to eat less fatty meat including pork, remind them to take regular medicine and have regular check of their health condition at the health center." (Informant, Cultural Practitioners, and Traditional Leaders).*

*"Here, if someone gets sick, his or her family usually really cares. They will accompany him or her to check his or her health to the health center. So if we want to give education, we also have to give the education directly to the family. Further, the family will help to remind them to take medicine and encourage patients to be enthusiastic to recover." (Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center).*

**Utilization of health facilities:** The interview results showed that the second driving factor in reducing the risk of stroke is utilizing health facilities for health control. The following are excerpts related to these findings:

*"We go to the health center if we have some symptoms such as dizziness, or feeling high blood pressure with pain in the head" (Informant, Cultural Practitioners, and Traditional Leaders).*

*"People usually will go to the health center, if they have complaints; otherwise, it is rare situation where people go to public health center without any complaints. We like to give directions and guidance to come regularly to the Integrated Development Post (Posbindu) if they cannot reach public health center to check their health condition. Even though there are not many of them, there are some people who regularly come to the Integrated Development Post (Posbindu) to check their blood pressure" (Barong Tongkok Public Health Center and Sekolaq Darat Public Health Center).*

**Social support:** According to the interview session, the last driving factor in reducing the risk of stroke is social support. The Dayak people have a high sense of caring for others, both neighbors and relatives. The following are excerpts related to these findings:

*"Suggesting our neighbors/relatives to check their health if there are complaints, inviting them to come to Integrated Guidance Post (Posbindu) regularly. Give encouragement to people who suffer from hypertension or stroke so that they are eager to recover. We sometimes like to remind them to watch their diet, forbid them from eating salty and fatty foods"* (Informant, Cultural Practitioners, and Traditional Leader).

## DISCUSSION

This study aims to identify the adaptive behavior of the Dayak family in an attempt to prevent stroke. Based on the results of the study, four major themes were identified, namely understanding health problems, utilization medicinal plants, disease control, and driving factors in reducing stroke risk.

### Understanding health problems

It is important that families with hypertension patient understand clearly related to stroke prevention, risky behavior and health problems. Families have an important role in preventing stroke risk behavior through lifestyle modifications.

The results of this study indicate that although families with hypertension patient understand health problems, the Dayak people still practice stroke-risk habits. These habits include consuming alcohol during traditional events, not regularly checking their health condition at the public health center, often consuming salted pork, drinking coffee in the morning as a substitute for breakfast, often consuming salted fish, and smoking habits. Therefore, many Dayak people suffer from hypertension, stroke and diabetes mellitus (DM).

Understanding in preventing stroke must be followed by appropriate behavior. Theory of HBM (Health Belief Model) stated that to change public health behavior, it is necessary firstly to change the perceptions which exist in society.[6] There are 6 perceptions in the theory, namely perceived susceptibility, perceived severity, perceived benefits, perceived barriers, perceived cues to action and perceived self-efficacy.[7]

The important perceptions to know are the perceptions of benefits and barriers. The perceived benefits that a person feels by doing a healthy lifestyle refer to a person's judgment about the value involved in behavior to reduce the risk of a disease.[8] Further, based on Azadi, *et al* (2021)[6] research, perceived barriers means that the barriers a person feels in obtaining health can reduce that person's adherence to prevent his or her disease. If these two perceptions are not changed, it will lead to unhealthy behavior for hypertension people. Individuals who feel vulnerable to their disease they are suffering from will take an action and the action taken depends on the benefits and ease of carrying out the action.[7]

### Utilization medical plants

Indonesia is a country which has many nutritious plants and they are used to treat various diseases. Until now, many studies have been conducted to see local plants used as antihypertensive drugs.[9] The

results of this study indicate that the Dayak people have local wisdom and habits to use plants as herbal medicines to prevent high blood pressure. This has been carried out to reduce the risk of stroke. Herbal medicinal plants commonly used by the Dayak tribe are bay leaves, red ginger, *sembung*, celery leaves, *bajaka* roots, and Dayak onions.

Bay leaves, *Bajakah* root water, *sembung*, and Dayak onions contain high levels of flavonoid compounds which are efficacious as antihypertensives and can reduce System Vascular Resistance (SVR).[10-13] *Sembung* leaves also contain ingredients to cure headaches.[13] For red ginger, apart from containing flavonoid compounds, it also contains oleoresin compounds which can improve blood vessel circulation and can ease the work of the heart.[14] Celery leaves contain 3-nbutylpthalide or phthalides which play a role in relaxing the smooth muscles of blood vessels.[15]

Research by Azzahra *et al.*,[16] showed that the leaves were the part of the medicinal plant which most often used by the Dayak tribe.[16] The processing method used for consuming medicinal plants by the Dayak tribe is by boiling the plant and then drinking the boiled water. This process is the most widely used method because it is easy and economical. Ingredients processing by repeated boiling will reduce the benefits produced by that herbal medicine.[17]

### Disease control

The control of hypertension and stroke which has been carried out by Dayak health workers is education and health promotion. The health workers provide direct information to patients, give counseling to the public and distribute leaflets. Education can improve people's knowledge.[18] Health education and promotion can be carried out using the media of leaflets, videos, lecture methods.[19]

Health education and promotion carried out by health workers at the Dayak Health Center only use leaflet media or printed media. Digital media such as mobile applications or utilizing social media have not been used whereas health promotion through social media or digital media is effective in increasing public understanding of disease prevention. Research conducted by Li & Liu (2020)[20] shows that social media is an effective tool in promoting disease prevention behavior among the public.

Health education and promotion in disease control is very important to increase self-awareness for early detection.[21] People who are at risk to get stroke will realize the importance of early detection as a form of basic protection to prevent stroke. The more frequently and easily health education is given, the better the understanding of individuals to prevent disease.[18]

### Driving factors in reducing stroke risk

The driving factors in reducing the risk of stroke are family support, utilization of health facilities, and social support. The results of this current study revealed that Dayak families whose family members suffer from hypertension show positive behavior. They fully support sufferers to always check their health condition, remind them to take medicine, accompany them to check their health, and remind them to reduce consumption of foods which trigger high blood pressure.

Active family support and social support from neighbors and relatives are needed in motivating people with hypertension to control their blood pressure. Families have high emotional bonds and intense family interactions carried out at home play a role in preventing stroke.[22] Research by Sari *et al.*, (2019)[23] stated that social support from family and other people has a major influence on a person's decision making to improve his health.

The Dayak tribe utilizes health service facilities by routinely controlling their health through Integrated Guidance Post (*Posbindu*). This is carried out after they feel the hypertension symptoms such as dizziness and headaches. Someone uses health services usually because they feel sick and need medication.[4] This is in line with HBM theory mainly in the perception of benefits, where a person will take an action because they perceive benefits; in this case, they are visiting a health service when they feel sick to get medicine.[7] However, it is not in accordance with an understanding (motto), which is stated that it is better to prevent a disease rather than to try to find cures for diseases after they occur. Therefore, it is important to have family and social support in motivating people to improve the individuals perception who are at risk to diligently check their health.[24,25]

## CONCLUSION

Families with hypertension sufferers in the Dayak tribe have adaptive behavior in in an attempt to prevent stroke. This is applied with local wisdom in utilizing medicinal plants. The Dayak people use medicinal plants as a form of independence in their attempt to prevent health problems. Stroke disease control has been carried out by providing health education and managing the promotion, while the methods used are giving direct information, counseling and distributing leaflets. The role of the family is very important in motivating sufferers to carry out routine health checks. Families in the Dayak tribe have done this; however, this was carried out after hypertension was diagnosed.

## SUGGESTIONS

Researchers suggest for families whose family members are at risk of hypertension to always provide motivation and pay attention to their lifestyle. For health workers, it is suggested to improve health education and promotion methods. They can use digital media so that they do not only use print media.

## CONFLICTS OF INTEREST

The author declares no conflicts of interest among all authors.

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