

Lampiran 1. Jurnal Penelitian

ARTERI : Jurnal Ilmu Kesehatan
Vol. 2, No. 2, Pebruari 2021, hlm. 55-61

p-ISSN 2721-4516
e-ISSN 2715-4432

Hubungan Tingkat Pengetahuan dengan Perilaku Pencegahan COVID-19 di Desa Lebak Peniangan Lampung

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ABSTRAK

Corona Viruses (CoV) menjadi perbincangan dari seluruh kalangan di Dunia sejak Desember 2019 hingga April 2021 masih menjadi topik permasalahan. Novel coronavirus (2019-nCoV) adalah jenis baru coronavirus yang belum pernah diidentifikasi sebelumnya pada manusia yang dapat menyebabkan penyakit mulai flu biasa hingga penyakit yang serius seperti Middle East Respiratory Syndrome (MERS) dan Sindrom Pernafasan Akut Berat/ Severe Acute Respiratory Syndrome (SARS). COVID - 19 dapat menyebar dari orang ke orang terutama ketika orang yang terinfeksi melakukan kontak dekat dengan orang lain. Salah satu upaya yang dapat dilakukan masyarakat untuk memutus rantai penyebaran COVID-19 adalah pengetahuan dan pemahaman terkait COVID-19. Pengetahuan yang didapat tersebut dapat mendorong masyarakat untuk melakukan tindakan seperti mematuhi protokol kesehatan yang dianjurkan oleh pemerintah serta melakukan proteksi dasar yaitu menerapkan 3M dan 3T di masa pandemik COVID-19. Penelitian ini bertujuan untuk mengetahui hubungan tingkat pengetahuan dengan perilaku pencegahan COVID-19 di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung. Peneliti menggunakan metode kuantitatif dengan rancangan cross sectional. Populasi ditentukan berdasarkan kartu keluarga yaitu sebanyak 1500 KK. Sampel diperoleh dengan menggunakan teknik Random sampling sebanyak 306 responden. Data penelitian dikumpulkan menggunakan kuesioner pengetahuan dan perilaku kemudian dianalisis menggunakan Uji Chi Square. Hasil Uji Chi Square menunjukkan bahwa nilai p value = 0,000 kurang dari p alpha = 0,005 yang artinya terdapat hubungan bermakna antara tingkat pengetahuan dengan perilaku pencegahan COVID-19 di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Lampung Tahun 2021. Penelitian juga menunjukkan bahwa pengetahuan responden tentang COVID-19 sebagian besar dalam kategori baik yaitu sebanyak 258 responden (84.3%). Perilaku responden dalam upaya pencegahan COVID-19 sebagian besar dalam kategori cukup yaitu sebanyak 218 responden (71.2%). Dari hasil penelitian dapat disimpulkan bahwa terdapat hubungan antara pengetahuan responden dengan perilaku pencegahan COVID-19 pada masyarakat. Masyarakat perlu menambah wawasan pengetahuan untuk meningkatkan perilaku pencegahan COVID-19.

Kata kunci: COVID-19, Tingkat Pengetahuan, Perilaku Pencegahan COVID-19

ABSTRACT

Relationship COVID-19 knowledge level with COVID-19 prevention behavior in Lebak Peniangan Village, Rebang Tangkas Way Kanan District, Lampung, 2021. Corona Virus (CoV) is an ongoing global talk of all circles in the world from December 2019 to April 2021, which is still a problematic topic. The novel coronavirus (2019-nCoV) is a new type of coronavirus that has never been previously identified in humans. It can cause illnesses ranging from the common cold to serious illnesses such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). COVID-19 can spread from person to person especially when an infected person is in close contact with another person. The knowledge gained can encourage people to take actions such as complying with health protocols recommended by the government and taking basic protection, namely implementing 3M and 3T during the COVID-19 pandemic. This study aimed to analyze the relationship between COVID-19 knowledge level and COVID-19 prevention behavior in Lebak Peniangan Village, Rebang Tangkas Way Kanan District, Lampung. This research was a quantitative study with a crosssectional design. The population was determined based on family cards of 1500 households. The sample was obtained using a random sampling technique of 306 respondents. The researcher collected knowledge and behavior data using a questionnaire and analyzed using the Chi Square test. The result of Chi Square test on the respondent's knowledge and behavior showed p value = 0.000 ($p < 0.05$) which means that there is a significant relationship between the level of knowledge and COVID-19 prevention behavior in Lebak Peniangan Village, Rebang Tangkas Way Kanan District, Lampung, 2021. The results showed that most of the respondents' knowledge about COVID-19 was in a good category with 258 respondents (84.3%). The behavior of respondents in efforts to prevent COVID-19 was mostly in the moderate category with 218 respondents (71.2%). From the research results, it can be concluded that there is a relationship between respondents' COVID-19 knowledge and COVID-19 prevention behavior in the community. The public needs to know more about COVID-19 to improve prevention behavior.

Keywords: COVID-19, Knowledge Level, COVID-19 Prevention Behavior

I. PENDAHULUAN

Pada tanggal 30 Januari 2020 World Health Organization (WHO) atau Badan Kesehatan Dunia telah menetapkan *Corona Virus Disease-19* atau yang lebih dikenal dengan COVID-19 sebagai Kedaruratan Kesehatan Masyarakat yang Meresahkan Dunia. Pada tanggal 11 Maret 2020 akhirnya WHO resmi mengumumkan sebagai pandemik. *Corona Virus* adalah anggota besar virus yang menyebabkan penyakit pada manusia dan hewan. *Corona virus* jenis baru yang ditemukan pada manusia yang pertama kali muncul di Wuhan Cina, pada Desember 2019, kemudian diberi nama *Severe Acute Respiratory Syndrome Coronavirus 2* (SARS-CoV2), dan menyebabkan penyakit *Coronavirus Disease-2019*.^{1,2}

COVID - 19 dapat menyebar dari orang ke orang terutama ketika orang yang terinfeksi melakukan kontak dekat dengan orang lain. Penularan penyakit ini terjadi ketika orang yang terinfeksi bersin dan batuk dahak. Beberapa penelitian menunjukkan bahwa aerosol dari patogen yang sangat ganas seperti (SARS CoV) dapat menularkan dengan jarak lebih dari enam kaki. Selain itu, Sebuah penelitian lain menemukan bahwa 27 dari 48 orang yang memiliki hasil tes positif adalah mereka yang tidak memiliki gejala atau asimtomatik, hasil ini menunjukkan bahwa orang yang tidak menunjukkan peran memainkan peran penting dalam penularan SARS-CoV-2.^{3,4}

Salah satu upaya yang dapat dilakukan masyarakat untuk memutus rantai penyebaran COVID-19 adalah dengan melakukan 3M yaitu memakai masker, mencuci tangan menggunakan sabun, dan menjaga jarak satu meter dengan orang lain. Menurut juru bicara Gugus Tugas Percepatan Penanganan COVID-19 Data yang ditemukan di Kotawaringin Barat pada bulan Mei 2020 dari 29 orang positif COVID-19, sebanyak 27 orang masih dalam masyarakat dan 2 orang dinyatakan sembuh. Masyarakat mendapatkan sumber informasi dari media sosial, media massa tentang COVID-19.

Berdasarkan wawancara dengan 10 orang warga, mereka dapat menjelaskan tanda gejala dan pencegahan COVID-19. Hasil observasi di kelurahan baru ditemukan 50% warga tidak menggunakan masker saat beraktifitas di luar rumah, terlihat kerumunan orang di pasar tanpa

menjaga jarak dan 25% warga kelurahan baru dengan usia lansia. Dengan data tersebut pentingnya pemerintah untuk mengantisipasi kejadian penambahan kasus positif COVID-19. Pentingnya kesadaran dari masyarakat untuk memutus rantai penularan COVID-19.

Pengetahuan dapat mempengaruhi suatu perilaku seseorang. Perilaku adalah suatu kemampuan individu untuk merespon stimulus atau suatu tindakan yang dapat dilihat dan memiliki frekuensi spesifik, durasi serta tujuan secara disadari atau tidak. Masyarakat perlu mengenal, mempelajari serta memahami segala aspek dari penyakit COVID-19 termasuk tanda dan gejala, penyebab, pencetus dan penatalaksanaannya.

Pada penelitian sebelumnya, pengetahuan masyarakat tentang COVID-19 dalam kategori baik (90%) dapat mempengaruhi perilaku baik yaitu sebanyak (95,8%) daripada masyarakat dengan pengetahuan cukup hanya (10%) menunjukkan perilaku cukup baik sebanyak (4,2%). Pengetahuan masyarakat tentang upaya pencegahan COVID-19 dengan deteksi dini, isolasi mandiri, menjaga jarak satu sama lain. Perlindungan dasar juga diperlukan seperti mencuci tangan menggunakan sabun, memakai masker, makanan bergizi seimbang, olahraga cukup dan menerapkan etika batuk yang baik dan benar memiliki peranan penting dalam mengantisipasi kejadian berulang.¹

Kabupaten Way Kanan, pada tanggal 26 April saat ini memiliki total kasus terkonfirmasi positif sebanyak 128 orang, dengan jumlah kematian 5 orang, termasuk diantaranya Desa Lebak Peniangan Kecamatan Rebang Tangkas terdapat 3 orang terkonfirmasi positif dan 1 orang meninggal dunia. Hal ini dapat disebabkan karena masyarakat yang belum memiliki kesadaran untuk melaksanakan 3 M dan 3 T sesuai protokol kesehatan, mematuhi himbauan pemerintah untuk mengurangi intensitas keluar rumah serta kurangnya informasi seperti halnya edukasi mengenai COVID-19 sebagai pengetahuan masyarakat untuk melakukan pencegahan COVID-19.⁵

Oleh karena itu, penting dilakukan penelitian tentang hubungan tingkat Pengetahuan dengan perilaku pencegahan COVID-19 pada masyarakat. Penelitian ini bertujuan untuk mengetahui hubungan Tingkat Pengetahuan dengan Perilaku Pencegahan

COVID-19 di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Lampung Tahun 2021.

II. METODOLOGI

Jenis penelitian yang digunakan oleh peneliti yaitu penelitian kuantitatif dengan menggunakan metode analitik observasional. *i. Studi potong lintang* atau pendekatan *Cross Sectional* digunakan oleh peneliti karena pengukuran atau pengumpulan variabel independen, variabel dependen dan kasus yang terjadi pada objek penelitian didapatkan secara simultan atau serentak. Penelitian dilakukan di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung Tahun 2021. Populasi pada penelitian ini yaitu anggota masyarakat Desa Lebak Peniangan yang terdaftar di dalam Kartu Keluarga sebanyak 1500 KK.⁶

Sampel pada penelitian ini merupakan anggota masyarakat Desa Lebak Peniangan yang diambil berdasarkan kriteria inklusi dan eksklusi. Jumlah sampel ditentukan berdasarkan tabel Krejcie dan Morgan (1970) yang sudah diketahui populasi sebelumnya sehingga didapatkan sampel minimum sebanyak 306 responden. Sampel penelitian diambil menggunakan teknik *random sampling*. Variabel dalam penelitian ini adalah variabel bebas yaitu tingkat pengetahuan COVID-19 dan variabel terikat yaitu perilaku pencegahan COVID-19.

Adapun data penelitian dikumpulkan menggunakan kuesioner pengetahuan COVID-19 dan perilaku pencegahan COVID-19 yang telah di uji validitas dan reliabilitasnya terlebih dahulu oleh peneliti. Data yang telah didapatkan dari hasil pengumpulan observasi dan kuesioner, kemudian data tersebut diubah kedalam bentuk tabel. Peneliti menganalisis data univariat dan bivariat menggunakan SPSS 25.0. Data Bivariat dianalisis menggunakan Uji Chi Square yang terdapat di dalam Software SPSS 25.0.

III. HASIL DAN PEMBAHASAN

Karakteristik responden dikumpulkan sebagai data sekunder berupa usia, jenis kelamin, pendidikan terakhir dan pekerjaan. Distribusi responden berdasarkan karakteristik tersebut dapat dilihat pada tabel 1 dibawah ini.

Tabel 4.1 Distribusi Responden Berdasarkan Usia, Jenis Kelamin, Pendidikan Terakhir dan Pekerjaan

Karakteristik Responden	Jumlah	
	n	%
1. Jenis Kelamin		
Laki-Laki	149	48.7
Perempuan	157	51.3
2. Umur		
17-25 Tahun	77	25.2
26-35 Tahun	65	21.2
36-45 Tahun	66	21.6
46-55 Tahun	61	19.9
56-65 Tahun	36	11.8
3. Tingkat Pendidikan		
SD	22	7.2
SMP	55	18.0
SMA	207	67.6
S1	22	7.2
4. Jenis Pekerjaan		
IRT	90	29.4
Petani	65	21.2
Pedagang	19	6.2
Wiraswasta	41	13.4
Buruh/Karyawan/Kuli/Supir/Ojek	57	18.6
Dosen/PNS/Guru	17	5.6
Mahasiswa/Pelajar	12	3.9
Total	306	100

Sumber : Data Sekunder (2021)

Tabel 4.1 menunjukkan bahwa sebagian besar responden adalah berjenis kelamin perempuan dengan presentase sebesar 51.3%. Hal ini menunjukkan secara umum responden perempuan memiliki pengetahuan lebih baik dari pada laki-laki. Perempuan secara psikologis lebih termotivasi dan lebih rajin dalam hal belajar dan bekerja dari pada laki-laki. Pada hasil penelitian ini perempuan cenderung memiliki pengetahuan lebih baik tentang pengetahuan COVID-19 daripada laki-laki. Penelitian ini sejalan dengan penelitian yang dilakukan Aziz dan Mangestuti bahwa perempuan lebih tinggi dibanding laki-laki dalam hal tingkat kecerdasan intelektual yang diukur dengan tes Standard Progressive Matrices (SPM). Hal ini juga mungkin dapat disebabkan karena responden jenis kelamin perempuan lebih banyak waktu untuk mencari informasi tentang COVID-19.⁸

Umur responden sebagian besar berada pada rentang usia 17-25 tahun dengan presentase sebesar 25.2%. Usia 17-25 tahun merupakan usia dewasa muda. Dewasa muda mampu memecahkan masalah yang kompleks dengan

kapasitas berfikir abstrak, logis, dan rasional. Sedangkan berdasarkan peran sosial, sebagai anggota masyarakat mereka pun terlihat dalam aktivitas-aktivitas sosial. Hasil penelitian sesuai dengan teori menurut pendapat Cropton, J (1997) yang menyatakan bahwa usia produktif merupakan usia dewasa yang aktif dalam kegiatan sehingga mendukung dalam belajar dan mengingat informasi yang diperoleh.⁷

Tingkat pendidikan responden sebagian besar yaitu SMA dengan presentase sebesar 67.6%. Pengetahuan bisa didapat selain melalui pendidikan formal dalam sekolah namun juga bisa diperoleh dari pendidikan nonformal di luar sekolah dan melalui pengalaman. Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Mujiburrahman (2020) dimana selain dari pendidikan formal, pengetahuan dapat diperoleh melalui orang lain maupun media massa antara lain majalah, televisi, surat kabar, dan radio. Seseorang dengan pendidikan rendah bukan berarti mutlak memiliki pengetahuan yang rendah pula.

Menurut peneliti walaupun sebagian besar responden adalah mereka yang berpendidikan akhir SMA namun responden memiliki pengetahuan terkait COVID-19 dengan baik. Responden penelitian mendapatkan informasi tidak hanya melalui pendidikan formal melainkan informal seperti dari menonton berita di televisi, informasi dari grup sosial media seperti *WhatsApp*, *Tik Tok*, *Facebook*, *Youtube* yang dapat diakses selama 24 jam dan dari kerabat maupun tetangga yang sering memberikan edukasi terkait dengan COVID-19.

Berdasarkan jenis pekerjaan, sebagian besar responden merupakan ibu rumah tangga dengan presentase sebesar 29.4%. Pengetahuan dan pengalaman seseorang dipengaruhi oleh pekerjaan. Saat pekerjaan lebih sering menggunakan otak, maka kemampuan otak terutama dalam menyimpan (daya ingat) akan bertambah ketika sering dipakai sehingga pengetahuannya menjadi baik. Peneliti berasumsi bahwa responden yang tidak bekerja mungkin memiliki waktu luang yang banyak untuk mendapatkan informasi dari berbagai sumber seperti televisi, internet, sosial media maupun keluarga atau kerabat terdekat. Selain itu, penyuluhan oleh petugas kesehatan seringkali dihadiri oleh warga yang tidak bekerja.

Pengetahuan dan perilaku responden dalam penelitian ini dikategorikan ke dalam kategori Baik, Cukup dan Kurang. Tingkat

pengetahuan yang dimaksud pada penelitian ini adalah pengetahuan responden mengenai COVID-19 yang meliputi pengertian, penyebab, tanda dan gejala klinis, cara penularan, faktor resiko dan upaya pencegahannya bagaimana. Adapun Perilaku pencegahan yang dimaksud dalam penelitian ini adalah perilaku atau perbuatan yang dilakukan oleh responden sebagai masyarakat untuk mencegah terjadinya COVID-19. Tingkat pengetahuan dan perilaku pencegahan COVID-19 responden dapat dilihat pada tabel 2.)

Tabel 4.2 Distribusi Frekuensi Tingkat Pengetahuan dan perilaku pencegahan COVID-19 pada masyarakat

Distribusi Frekuensi	Jumlah	
	n	%
1. Tingkat Pengetahuan		
Baik	258	84.3
Cukup	36	11.8
Kurang	12	3.9
2. Perilaku Pencegahan COVID-19		
Baik	218	71.2
Cukup	61	19.9
Kurang	27	8.8
Total	306	100

Sumber : Data Primer (2021).

Berdasarkan tabel 4.2, terdapat sebanyak 306 responden yang merupakan anggota masyarakat Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung memiliki tingkat pengetahuan tentang COVID-19 paling banyak dalam kategori baik (84.3%).

Menurut teori Model Pengetahuan, Sikap, dan Perilaku, pengetahuan merupakan faktor esensial yang dapat mempengaruhi perubahan perilaku, dan individu dapat memperoleh pengetahuan dan ketrampilan melalui proses belajar.⁹

Pengetahuan merupakan suatu unsur dalam membentuk perilaku diri seseorang. Pada dasarnya, perilaku individu ditentukan oleh pengetahuan individu itu sendiri. Pengetahuan adalah salah satu hal yang menjadi dasar untuk menangani kasus COVID-19 dalam menekan angka penularan sehingga memberikan kesadaran dalam upaya pencegahan COVID-19.¹⁰

Sumber informasi dapat diperoleh dari berbagai sumber sehingga seseorang lebih mudah untuk mengakses dan mempunyai

pengetahuan yang luas. Pengetahuan tentang penyakit COVID-19 dan upaya pencegahannya yang didapatkan oleh responden berasal dari berbagai sumber, seperti televisi, handphone, penyuluhan atau pendidikan dan melalui kerabat. Adanya informasi baru mengenai suatu hal dari media massa memberikan landasan kognitif baru bagi terbentuknya pengetahuan terhadap hal tersebut.

Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Mujiburrahman (2020) kepada masyarakat di Dusun Potorono Banguntapan Bantul D.I.Yogyakarta bahwa sebanyak (82.7%) responden memiliki pengetahuan tentang COVID-19 dalam kategori baik. Pengetahuan responden yang baik dipengaruhi berbagai aspek dari pada responden itu sendiri. Hasil penelitian ini juga sejalan dengan penelitian yang dilakukan oleh Yehuda & Novita (2020) dimana penelitian tersebut mengatakan bahwa pengetahuan masyarakat di SK 14/31 Kelurahan Batu Gantung, Nusaniwe, Kota Ambon tentang Covid-19 berada pada kategori tinggi (52%) dan terdapat 48% masyarakat yang berada pada kategori sedang.¹¹

Dari hasil penelitian yang telah diuraikan di atas, mayoritas anggota masyarakat Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung memiliki pengetahuan tentang COVID-19 yang baik. Pengetahuan masyarakat tentang COVID-19 merupakan aspek yang paling penting dalam masa pandemik saat ini. Pengetahuan yang tepat dan tinggi dapat mempengaruhi perilaku seseorang dalam melakukan pencegahan terhadap infeksi COVID-19.

Berdasarkan hasil Penelitian, anggota masyarakat Desa Lebak Peniangan Kecamatan Rebang Tangkas menunjukkan perilaku pencegahan yang paling banyak dilakukan oleh responden dalam kategori baik sebanyak 218 responden (71.2%) dan paling sedikit responden memiliki perilaku kurang baik sebanyak 27 responden (8.8%). Dari hasil tersebut diketahui perilaku masyarakat didominasi perilaku yang baik. Bentuk perilaku yang ditunjukkan antara lain rajin mencuci tangan menggunakan sabun, kepatuhan dalam menjaga jarak dengan orang lain, jarang berpergian ke fasilitas umum atau berkumpul di keramaian, selalu menggunakan masker ketika keluar rumah dan mengganti pakaian serta mandi setelah dari berpergian dari luar.

Menurut teori Snehandu B. Karr bahwa terdapat lima determinan perilaku kesehatan

diantaranya yang pertama adalah niat seseorang untuk bertindak sehubungan dengan kesehatan atau perawatan kesehatannya. Kedua yaitu dukungan sosial dari masyarakat sekitarnya. Didalam kehidupan bermasyarakat, perilaku seseorang cenderung memerlukan dukungan dari masyarakat sekitarnya. Apabila suatu perilaku tidak didukung oleh masyarakat sekitar, maka orang tersebut akan merasa tidak nyaman terhadap perilakunya tersebut. Ketiga adalah ada atau tidaknya informasi tentang kesehatan atau fasilitas kesehatan. Seseorang akan cenderung mengikuti suatu tindakan apabila ia mempunyai penjelasan yang lengkap tentang tindakan yang akan dilakukannya tersebut. Keempat yakni otonomi pribadi, yang bersangkutan dalam hal ini mengambil tindakan atau keputusan dan yang terakhir adalah situasi yang memungkinkan untuk bertindak atau tidak bertindak. Hal ini disebabkan untuk melakukan suatu tindakan apapun, diperlukan suatu kondisi dan situasi yang tepat. Kondisi dan situasi mempunyai pengertian yang luas, baik fasilitas yang tersedia maupun kemampuan yang ada.¹²

Penelitian ini sejalan dengan penelitian yang dilakukan oleh Mujiburrahman dkk, (2020) menunjukkan bahwa sebanyak (43.2%) masyarakat di Dusun Potorono Banguntapan Bantul D.I.Yogyakarta berperilaku cukup baik. Bentuk perilaku yang ditunjukkan antara lain kepatuhan dalam menjaga jarak saat di luar rumah, selalu mencuci tangan dengan sabun atau hand sanitizer sebelum masuk rumah, toko/minimarket, atm dan fasilitas lainnya, taat menggunakan masker saat berpergian dan tidak bersentuhan atau salaman dengan oranglain.¹¹

Salah satu cara yang efektif untuk membunuh kuman adalah dengan mencuci tangan sesuai standar WHO, diketahui virus COVID-19 bisa menempel pada bagian tubuh terutama tangan setelah memegang benda yang sudah terinfeksi oleh droplet. Kementerian Kesehatan menyampaikan bahwa 75% penularan virus covid adalah melalui percikan air ludah pada benda. Oleh karena itu dalam penelitian ini, sebgayaan responden mencuci tangan setelah memegang benda yang telah disentuh, baik sesudah makan maupun sebelum makan, dan melakukan kegiatan yang mengharuskan menyentuh area wajah.²

Berdasarkan kerangka konsep, analisis bivariat telah menguji hubungan satu persatu antara variabel bebas dengan variabel terikat. Variabel bebas adalah tingkat pengetahuan COVID-19. Analisis tabulasi silang digunakan

untuk mengetahui penyebaran dan frekuensi sehingga dapat terlihat hubungan antara tingkat pengetahuan dengan perilaku pencegahan COVID-19. Hasil tabulasi silang antara tingkat pengetahuan dengan perilaku pencegahan COVID-19 disajikan dalam tabel 3 berikut ini:

Tabel 4.3 Analisa Hubungan Tingkat Pengetahuan dengan Perilaku Pencegahan COVID-19 Pada Masyarakat di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung Tahun 2021

Hasil Analisis Data		
Variabel	p-value	r
Hubungan Tingkat Pengetahuan dengan Perilaku Pencegahan Covid-19	P=0,000	0,463

Sumber : Data Primer (2021)

Berdasarkan uji yang dilakukan dengan SPSS didapatkan nilai $p\text{-value} = 0,000$ dan nilai $p\text{-alpha} = 0,05$, sehingga nilai $p\text{-value} < p\text{-alpha}$ ($0,000 < 0,05$). Hal ini menunjukkan bahwa H_0 ditolak dan H_a diterima yang artinya terdapat hubungan yang signifikan antara pengetahuan dengan perilaku pencegahan COVID-19 pada masyarakat di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung. Hasil penelitian menunjukkan bahwa responden dengan pengetahuan yang baik dan perilaku pencegahan dengan baik sebanyak 218 (71,2%).

Hal ini menandakan bahwa pengetahuan merupakan faktor yang mendukung responden dalam melakukan suatu tindakan baik atau buruk sebagai upaya pencegahan suatu penyakit. Pengetahuan mengenai COVID-19 adalah responden yang mengetahui definisi, etiologi, manifestasi klinis COVID-19, cara pencegahan dan protokol kesehatan sesuai anjuran pemerintah sebagai upaya pencegahan COVID-19 sehingga responden cenderung berperilaku baik.

Hal tersebut sesuai dengan teori pembentukan perilaku, bahwa munculnya sebuah perilaku dilatarbelakangi oleh stimulus. Stimulus tersebut menghasilkan respon yang muncul dari dalam diri individu sebagai *inner drive* atau dorongan dari dalam. *Inner drive* digunakan seseorang untuk memenuhi kebutuhan dalam menghadapi lingkungan yang dihadapinya. Pengetahuan merupakan salah satu stimulus dalam pembentukan perilaku tersebut.¹³

Pengetahuan menjadi domain kognitif yang mendasari suatu tindakan dalam membentuk perilaku kesehatan. Penerapan perilaku pencegahan sebagai tindakan yang dilakukan atas dasar kesadaran. Perilaku didasari oleh pengetahuan dan kesadaran yang positif, maka perilaku tersebut akan bersifat langgeng (*long lasting*) namun sebaliknya jika perilaku itu tidak didasari oleh pengetahuan dan kesadaran maka perilaku tersebut bersifat sementara atau tidak akan berlangsung lama.¹³

Hasil penelitian sejalan dengan penelitian Nurul Aula (2020) yang menyatakan bahwa terdapat hubungan yang signifikan antara pengetahuan dengan perilaku masyarakat tentang COVID-19 yang dimana dalam penelitian tersebut dari 144 responden yang diperoleh terdapat sebanyak 126 orang (96,9%) dengan tingkat pengetahuan yang baik memiliki perilaku pencegahan yang baik juga. Hal ini mendukung teori adaptasi yang menyatakan bahwa tingkat pengetahuan baik dapat mendorong seseorang untuk mempunyai tindakan yang baik pula.^{14,15}

Selain itu, penelitian ini sejalan juga dengan penelitian yang dilakukan oleh Purnamasari, (2020) menunjukkan bahwa hasil pengetahuan masyarakat Kabupaten Wonosobo tentang Covid 19 berada pada kategori Baik (90%) dan hanya 10% berada pada kategori cukup. Untuk perilaku masyarakat Kabupaten Wonosobo terkait COVID-19 seperti menggunakan masker, kebiasaan cuci tangan dan menjaga jarak menunjukkan perilaku yang baik sebanyak 95,8% dan hanya 4,2% masyarakat berperilaku cukup baik. Terdapat hubungan bermakna antara pengetahuan dengan perilaku masyarakat tentang Covid 19 dengan $p\text{-value} 0,047$. Hasil penelitian ini diperkuat dengan penelitian yang dilakukan oleh Dyah, (2020) bahwa responden dengan tingkat pengetahuan baik sebanyak 50 orang (100%) yang berperilaku cukup baik dalam pencegahan COVID-19 sebanyak 23 (46%) responden.¹

Peneliti berpendapat bahwa pengetahuan dapat menentukan seseorang dalam berperilaku dikehidupan sehari-hari. Pada penelitian ini didapatkan ada beberapa masyarakat yang memiliki tingkat pengetahuan tentang COVID-19 sudah baik namun dalam penerapan perilaku pencegahan COVID-19 didapatkan kurang baik (22,8%) atau tidak sesuai dengan pemahamannya tentang COVID-19. Hal ini mungkin saja terjadi karena adanya pemahaman masyarakat yang belum sama mengenai upaya

pencegahan COVID-19. Masyarakat tahu bahwa COVID-19 merupakan penyakit yang sudah menginfeksi jutaan jiwa di seluruh dunia, namun masyarakat kurang memiliki kesadaran dan kedisiplinan dalam menerapkan upaya pencegahan COVID-19 yaitu salah satunya menaati protokol kesehatan. Kepedulian dan kesadaran masyarakat untuk melakukan upaya pencegahan COVID-19 yang masih kurang tidak hanya merugikan diri sendiri namun keluarga dan orang lain.

Dari hasil penelitian ini, anggota masyarakat Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan provinsi Lampung dikategorikan memiliki pengetahuan dan perilaku pencegahan COVID-19 baik. Pengetahuan dan perilaku yang baik merupakan langkah utama sebagai upaya pencegahan COVID-19 serta pencapaian pengendalian penyebaran COVID-19

IV. SIMPULAN DAN SARAN

Berdasarkan hasil penelitian dan pembahasan yang dilakukan mengenai hubungan tingkat pengetahuan dengan perilaku pencegahan COVID-19 pada masyarakat di Desa Lebak Peniangan Kecamatan Rebang Tangkas Way Kanan Provinsi Lampung Tahun 2021, peneliti menyimpulkan bahwa anggota masyarakat Desa Lebak Peniangan sebagian besar memiliki tingkat pengetahuan dan perilaku pencegahan COVID-19 dalam kategori baik. Tingkat pengetahuan dengan perilaku pencegahan COVID-19 memiliki hubungan yang bermakna dalam penelitian ini. Kedua variabel penelitian ini memiliki hubungan positif yang sedang dengan nilai r sebesar 0,463. Semakin baik tingkat pengetahuan masyarakat mengenai COVID-19 maka semakin baik juga upaya masyarakat untuk melakukan pencegahan terhadap COVID-19 di masa pandemik COVID-19.

Peneliti berharap masyarakat lebih aktif dalam mencari sumber informasi dari berbagai sumber mengenai COVID-19 sebagai bentuk upaya pencegahan terhadap COVID-19 dan memutus rantai penyebaran COVID-19 serta tetap mematuhi protokol kesehatan. Masyarakat

Adapun bagi peneliti selanjutnya agar dapat memperbaiki dan mengantisipasi segala kelemahan yang ada dalam penelitian ini, serta diharapkan dapat mengembangkan penelitian selanjutnya, dengan menggunakan metode yang berbeda seperti teknik pengambilan sampel dan dilengkapi literatur yang lebih banyak.

V. UCAPAN TERIMA KASIH

Terimakasih penulis ucapkan kepada Kepala kampung Desa Lebak peniangan beserta anggotanya yang telah memberikan izin penelitian kepada peneliti dan juga tentunya kepada anggota masyarakat desa Lebak Peniangan atas partisipasinya telah meluangkan waktu untuk menjadi responden pada penelitian ini.

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Pengetahuan Berhubungan dengan Peningkatan Perilaku Pencegahan COVID-19 di Masyarakat

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Abstrak

Dunia dihebohkan dengan munculnya virus jenis baru, sebuah virus yang dikenal dengan sebutan virus corona. Corona viruses (CoV) merupakan bagian dari keluarga virus yang menyebabkan penyakit mulai dari flu hingga penyakit yang lebih berat seperti *Middle East Respiratory Syndrome (MERS-CoV)* and *Severe Acute Respiratory Syndrome (SARS-CoV)*. Penyakit yang disebabkan virus corona, atau dikenal dengan *COVID-19*, adalah jenis baru yang ditemukan pada tahun 2019 dan belum pernah diidentifikasi menyerang manusia sebelumnya. Penelitian ini bertujuan untuk mengidentifikasi hubungan pengetahuan dengan perilaku pencegahan *COVID-19* pada masyarakat di Dusun Potorono Banguntapan Bantul D.I.Yogyakarta. Penelitian ini adalah penelitian kuantitatif dengan rancangan *cross sectional*. Populasi pada penelitian ini berjumlah 1.634 orang. Sampel sebanyak 104 responden dipilih menggunakan teknik *Consecutive sampling*. Data pengetahuan dan perilaku responden dikumpulkan menggunakan kuesioner dan dianalisis dengan uji *spearman*. Hasil penelitian menunjukkan bahwa pengetahuan responden tentang pencegahan *COVID-19* sebagian besar dalam kategori baik yaitu sebanyak 86 responden (82.7%). Perilaku responden dalam pencegahan *COVID-19* sebagian besar dalam kategori cukup yaitu sebanyak 53 responden (51.0%). Uji *spearman* terhadap pengetahuan dan perilaku responden menunjukkan nilai p value = 0,001 ($p < 0,05$). Dari hasil tersebut dapat disimpulkan bahwa ada hubungan antara pengetahuan responden dengan perilaku pencegahan *COVID-19* di masyarakat. Peningkatan pengetahuan masyarakat diperlukan untuk meningkatkan perilaku pencegahan *COVID-19*.

Kata kunci: Pengetahuan; perilaku pencegahan; *COVID-19*; pandemi

Knowledge is Linked to the Preention Behaviour of COVID-19 Among Citizen

Abstract

The world was shocked by the emergence of a new type of virus, a virus known as the corona virus. Corona viruses (CoV) are part of a family of viruses that cause illnesses ranging from the flu to more severe illnesses such as *Middle East Respiratory Syndrome (MERS-CoV)* and *Severe Acute Respiratory Syndrome (SARS-CoV)*. The disease caused by the corona virus, otherwise known as *COVID-19*, is a new type that was discovered in 2019 and has never been identified as affecting humans before. This study aims to identify the relationship between knowledge and *COVID-19* prevention behavior in the community in Potorono Banguntapan Bantul D.I.Yogyakarta. This research is a quantitative study with a cross sectional design. The population in this study amounted to 1,634 people. A sample of 104 respondents was selected using the *Consecutive sampling* technique. Respondents' knowledge and behavior data were collected using a questionnaire and analyzed using the *Spearman* test. The results showed that the respondents' knowledge about the prevention of *COVID-19* was mostly in the good category, namely as many as 86 respondents (82.7%). The

behavior of respondents in preventing COVID-19 was mostly in the moderate category, namely as many as 53 respondents (51.0%). The Spearman test on the respondent's knowledge and behavior showed p value = 0.001 ($p < 0.05$). From these results it can be concluded that there is a relationship between respondents' knowledge and COVID-19 prevention behavior in the community. Increasing public knowledge is needed to improve COVID-19 prevention behavior.

Keywords: Knowledge; prevention behavior; COVID-19; pandemi

PENDAHULUAN

Dunia dihebohkan dengan munculnya virus jenis baru, yang dikenal dengan virus corona. Coronaviruses (CoV) merupakan bagian dari keluarga virus yang menyebabkan penyakit mulai dari flu hingga penyakit yang lebih berat seperti *Middle East Respiratory Syndrome (MERS-CoV)* and *Severe Acute Respiratory Syndrome (SARS-CoV)* (Hairunisa & Amalia, 2020). Penyakit yang disebabkan virus corona, atau dikenal dengan *COVID-19*, adalah jenis baru yang ditemukan pada tahun 2019 dan belum pernah diidentifikasi menyerang manusia sebelumnya (C. R. f. W. H. O. World Health Organization, 2020). Selanjutnya Organisasi Kesehatan Dunia (WHO) mengumumkan kedaruratan Internasional pada 30 Januari 2020 diikuti dengan pernyataan sebagai 'pandemi' pada 11 Maret 2020 (C. R. f. W. H. O. World Health Organization, 2020). Saat ini belum ada pengobatan atau vaksin tersedia untuk COVID-19, masih dalam proses untuk pengembangan vaksin.

Jumlah orang yang terinfeksi dan mereka yang meninggal meningkat dari hari ke hari. Penambahan jumlah kasus COVID-19 cukup berat dan sudah terjadi penyebaran ke luar wilayah Wuhan dan negara lain (World Health Organization, 2020). Sampai dengan 16 februari 2020, secara global dilaporkan 51.857 kasus konfirmasi di 25 negara dengan 1.699 kematian (CFR 3,2%) (World Health Organization, 2020). Rincian negara dan jumlah kasus sebagai berikut: China 51.174 kasus konfirmasi dengan 1.666 kematian, Jepang 53 kasus, 1 kematian dan 255 kasus di cruise ship pelabuhan Jepang. Thailand 34 kasus, Korea Selatan 29 kasus, Vietnam 16 kasus, Singapura 72 kasus, dan Amerika Serikat 15 kasus (World Health Organization, 2020).

Data dari Kementerian Kesehatan Republik Indonesia, gugus tugas percepatan penanganan COVID-19 di Indonesia pada tanggal 16 September 2020 terdapat 228.993 kasus yang terkonfirmasi 164.101 kasus sembuh dan 9.101 kasus meninggal. Data statistik kasus COVID-19 didapatkan hampir di seluruh wilayah, beberapa di antaranya ialah DKI Jakarta dengan jumlah kasus 82.190 jiwa, Jawa Timur Sebanyak 45.748 kasus, Jawa Barat sebanyak 25.662 kasus, Jawa Tengah 24.913 kasus dan di daerah lainnya. Daerah Istimewa Yogyakarta menempati urutan ke-23 dengan 2.607 kasus terkonfirmasi, 1.856 kasus sembuh dan 67 kasus meninggal (Gugus Tugas Percepatan Penanganan COVID-19, 2020). Daerah Istimewa Yogyakarta merupakan kabupaten/kota dengan kasus positif tertinggi pertama terdapat di daerah Sleman dengan total sebanyak 1.126 kasus positif COVID-19.

Kota tertinggi kedua kasus positif adalah Kabupaten Bantul dengan total sebanyak 681 kasus positif COVID-19 (Pemda DIY, 2020).

Penularan virus Corona (SARS-Cov2) di tubuh manusia menimbulkan gejala penyakit pneumonia dan gejala serupa sakit flu pada umumnya. Gejala tersebut di antaranya batuk, demam, letih, sesak napas, dan tidak nafsu makan (Kemenkes, 2020). Namun berbeda dengan influenza, virus corona dapat berkembang dengan cepat hingga mengakibatkan infeksi lebih parah dan gagal organ serta kematian (Morfi, 2020). Kondisi darurat ini terutama terjadi pada pasien dengan masalah kesehatan sebelumnya (Mona, 2020). Inilah yang menyebabkan COVID-19 sangat berbahaya dan dapat menyebabkan kematian.

Hasil studi pendahuluan yang dilakukan dengan metode wawancara terhadap 12 orang warga di Desa Potorono Kecamatan Banguntapan Kabupaten Bantul menunjukkan ada 9 orang warga yang tidak mengetahui bahwa seseorang yang tidak bergejala memiliki risiko tertular COVID-19, sedangkan 3 warga lainnya mengetahui tentang hal tersebut. Observasi yang dilakukan terhadap warga menunjukkan bahwa sebagian warga belum sepenuhnya mematuhi protokol kesehatan. Beberapa dari mereka tidak menggunakan masker, tidak mencuci tangan dengan sabun, tidak menjaga jarak dan seringkali menyentuh area wajah dengan tangan yang belum dicuci.

Peningkatan jumlah kasus COVID-19 terjadi dalam waktu yang sangat cepat sehingga membutuhkan penanganan segera. Virus corona dapat dengan mudah menyebar dan menginfeksi siapapun tanpa pandang usia. Upaya pemutusan rantai penyebaran COVID-19 memerlukan pemahaman dan pengetahuan yang baik dari seluruh elemen termasuk masyarakat. Pengetahuan tentang penyakit COVID-19 merupakan hal yang sangat penting agar tidak menimbulkan peningkatan jumlah kasus penyakit COVID-19. Pengetahuan pasien COVID-19 dapat diartikan sebagai hasil tahu dari pasien mengenai penyakitnya, memahami penyakitnya, cara pencegahan, pengobatan dan komplikasinya (Mona, 2020).

Pengetahuan adalah suatu hasil dari rasa ingin tahu melalui proses sensoris, terutama pada mata dan telinga terhadap objek tertentu (Donsu, 2019). Pengetahuan juga merupakan domain terpenting dalam terbentuknya perilaku (Donsu, 2019). Selain pengetahuan dari masyarakat, pengetahuan, sikap dan tindakan dari tokoh masyarakat atau pemerintah mampu menggambarkan perilaku mereka untuk mendorong masyarakat dalam upaya pencegahan (Donsu, 2019). Sehingga masyarakat mampu berperilaku dengan baik. Perilaku adalah sebagian tindakan seseorang yang dapat dipelajari dan diamati. Salah satu faktor yang mempengaruhi perilaku manusia atau masyarakat adalah tingkat pengetahuan (Donsu, 2019). Berdasarkan studi pendahuluan dan uraian diatas maka penelitian ini bertujuan untuk mengidentifikasi hubungan pengetahuan dengan perilaku pencegahan COVID-19 di masyarakat.

METODE

Penelitian ini adalah penelitian kuantitatif dengan rancangan *cross sectional*. Populasi penelitian adalah penduduk Dusun Potorono Banguntapan Bantul D.I.Yogyakarta berjumlah 1634 orang. Sampel penelitian adalah 104 orang penduduk di Dusun Potorono Banguntapan Bantul D.I.Yogyakarta yang diambil dengan teknik *Consecutive Sampling*. Data yang dikumpulkan meliputi data primer dan data sekunder. Data primer terdiri dari pengetahuan dan perilaku responden. Data sekunder terdiri dari usia, jenis kelamin, pendidikan dan pekerjaan responden. Pengumpulan data menggunakan kuesioner pengetahuan dan perilaku yang disusun berdasarkan pedoman pencegahan dan pengendalian COVID-19 oleh Kemenkes RI (Kemenkes, 2020). Analisa data univariat dilakukan terhadap data sekunder dan ditampilkan dalam tabel distribusi frekuensi. Data primer dianalisa menggunakan uji *spearman*.

HASIL PENELITIAN

1. Data karakteristik Responden

Karakteristik responden dikumpulkan sebagai data sekunder berupa usia, jenis kelamin, pendidikan terakhir dan pekerjaan. Distribusi responden berdasarkan karakteristik tersebut dapat dilihat pada tabel 1 dibawah ini.

Tabel 1. Distribusi Responden Berdasarkan Usia, Jenis Kelamin, Pendidikan Terakhir dan Pekerjaan

Karakteristik	Frekuensi (n)	Persentase (%)
Umur		
Remaja akhir (17-25 tahun)	13	12.5
Dewasa awal (26-35 tahun)	24	23.1
Dewasa akhir (36-45 tahun)	33	31.7
Lansia awal (46-55 tahun)	34	32.7
Jenis kelamin		
Laki-laki	33	31.7
Perempuan	71	68.3
Pendidikan terakhir		
SD	5	4.8
SMP	8	7.7
SMA/SMK/SLTA	59	56.7
D3	5	4.8
S1	23	22.1
S2	4	3.9
Pekerjaan		
IRT	45	43.3
Pedagang	3	2.9
Wiraswasta	30	28.8
Buruh	7	6.7
Guru/Dosen/PNS	11	10.6
Pelajar/Mahasiswa	8	7.7
Total	104	100

Sumber: Data Sekunder, 2020

Tabel 1. menunjukkan bahwa sebagian besar responden berada pada rentang usia 36 – 45 (dewasa akhir) dan 46 – 55 (Lansia awal). Sebagian besar responden berjenis kelamin laki-laki,

yaitu sebanyak 71 orang (68,3%). Sebagian besar tingkat pendidikan responden adalah SMA/SMK/SLTA sebanyak 59 orang (56,7%). Sebagian besar responden merupakan ibu rumah tangga (43,3%) dan wiraswasta (28,8%).

2. Data Pengetahuan Responden

Pengetahuan responden dalam penelitian ini dikategorikan ke dalam kategori Baik, Cukup dan Kurang. Tingkat pengetahuan responden dapat dilihat pada tabel 2.

Tabel 2. Distribusi Frekuensi Pengetahuan Responden

Pengetahuan	Frekuensi (n)	Presentase (%)
Baik	86	82,7
Cukup	18	17,3
Kurang	0	0
Jumlah	104	100

Sumber: Data Primer, 2020

Berdasarkan tabel 2, tingkat pengetahuan sebagian besar responden berada dalam kategori Baik yaitu sebanyak 86 orang (82,7%). Tabel tersebut juga menunjukkan bahwa tidak ada responden dengan tingkat pengetahuan kurang (0%).

3. Data Perilaku Responden

Perilaku pencegahan yang dimaksud dalam penelitian ini adalah perilaku atau perbuatan yang dilakukan oleh responden sebagai masyarakat untuk mencegah terjadinya COVID-19. Pengukuran perilaku pencegahan menggunakan kuosioner. Setelah data terkumpul kemudian dilakukan pengkategorian perilaku pencegahan menjadi baik, cukup, dan kurang. Adapun distribusi frekuensi perilaku pencegahan adalah sebagai berikut:

Tabel 3. Distribusi Frekuensi Perilaku Pencegahan COVID-19 oleh Responden

Perilaku pencegahan	Frekuensi (n)	Presentase (%)
Baik	45	43,3
Cukup	53	51,0
Kurang	6	5,8
Jumlah	104	100

Sumber: Data Primer, 2020

Berdasarkan data tabel 43 diatas dapat kita ketahui bahwa untuk perilaku pencegahan sebagian besar dalam kategori cukup yaitu sebanyak 53 responden (51.0%) dan sebagian kecil dalam kategori kurang yaitu sebanyak 6 responden (5.8%).

4. Analisa bivariat

Analisis tabulasi silang digunakan untuk mengetahui penyebaran dan frekuensi sehingga dapat terlihat hubungan antara pengetahuan dengan perilaku pencegahan COVID-19. Hasil tabulasi silang antara pengetahuan dengan perilaku pencegahan COVID-19 disajikan dalam tabel 4. berikut ini:

Tabel 4. Tabulasi Silang Pengetahuan dan Perilaku Pencegahan COVID-19

Pengetahuan	Perilaku pencegahan						Jumlah	%	P- Value
	Baik		Cukup		Kurang				
	n	%	N	%	n	%			
Baik	41	39.4	45	43.2	0	0	86	82.7	0.001
Cukup	4	3.8	8	7.7	6	5.8	18	17.3	
Kurang	-	-	-	-	-	-	-	-	
Total	45	43.3	53	46.1	11	10.6	104	100	

Sumber: Data Primer, 2020

Berdasarkan tabel 4. responden dengan pengetahuan yang baik dan perilaku pencegahan dengan baik sebanyak 41 (39.4%), pengetahuan yang baik dan perilaku pencegahan dengan cukup sebanyak 45 (43.2%), pengetahuan yang cukup dan perilaku pencegahan dengan baik sebanyak 4 (3.8%), pengetahuan yang cukup dan perilaku pencegahan dengan cukup sebanyak 8 (7.7%), pengetahuan yang baik dan perilaku pencegahan dengan kurang sebanyak 6 (5.8%).

Hasil uji korelasi menggunakan uji *Spearman* $p=0,001$ (nilai $p<0,05$), hal ini menunjukkan bahwa terdapat hubungan yang signifikan antara pengetahuan dengan perilaku pencegahan COVID-19 pada masyarakat di Dusun Potorono Banguntapan Bantul D.I. Yogyakarta.

PEMBAHASAN

1. Pengetahuan-Responden

Berdasarkan tabel 4.1 diatas dapat diketahui bahwa dari 104 responden sebagian besar berumur lansia awal 45-55 tahun yaitu 34 (32.7%), sedangkan sebagian besar jenis kelamin perempuan yaitu sebanyak 71 orang (68.3%) dan sebagian kecil berjenis kelamin laki-laki sebanyak 33 orang (31.7%) orang. Selanjutnya untuk kriteria pendidikan terakhir sebagian besar SMA/SMK/SLTA sebanyak 59 orang (56.7%) dan sebagian kecil S2 sebanyak 4 orang (3.9%). Selanjutnya untuk pekerjaan sebagian besar sebagai ibu rumah tangga yaitu 45 orang (43.3%) dan sebagian kecil sebagai pedagang sebanyak 3 orang (2.9%).

Banyak faktor yang mempengaruhi pengetahuan responden tentang pencegahan COVID-19. Menurut Notoatmodjo (2012), faktor-faktor yang mempengaruhi pengetahuan yaitu pendidikan, umur, pekerjaan dan faktor eksternal lainnya. Umur mempengaruhi pengetahuan, menurut pendapat Budiman (2013) yang menyatakan bahwa usia mempengaruhi daya tangkap dan pola pikir seseorang. Dengan bertambahnya usia seseorang menyebabkan semakin berkembangnya daya tangkap dan pola pikirnya sehingga pengetahuan yang didapat semakin meningkat juga. Namun menurut pendapat Cropton, J (1997) dikutip dari penelitian Aulia (2013) yang menyatakan bahwa usia produktif merupakan usia dewasa yang aktif dalam kegiatan sehingga mendukung dalam belajar dan mengingat informasi yang diperoleh, akan tetapi pada

umur-umur tertentu atau menjelang usia lanjut kemampuan penerimaan atau mengingat suatu pengetahuan akan berkurang.

Hasil penelitian ini menunjukkan bahwa sebagian besar responden berumur lansia awal 45-55 tahun yaitu 34 (32.7%), dan yang terkecil berumur remaja akhir 17-25 tahun sebanyak 13 (12.5%). Pada penelitian ini, 19 orang responden yang berpengetahuan baik berada pada rentang usia 36-65 tahun (42%). Marlita (2013), mengungkapkan bahwa pengetahuan semakin baik karena daya tangkap dan pola pikir yang semakin berkembang dengan semakin bertambahnya usia seseorang. Menurut peneliti lansia awal memiliki pengetahuan baik karena pengetahuan yang dimilikinya bisa berasal dari pengetahuan sebelumnya yang berasal dari pengalaman atau sumber informasi dari petugas kesehatan.

Namun, semakin meningkat usia, terutama usia lanjut (>65 tahun) maka kemampuan penerimaan informasi dan kemampuan mengingat akan berkurang (Aulia, 2013). Hal ini dapat menjelaskan persentase responden (57,2%) yang memiliki pengetahuan kategori cukup dan kurang berusia >65 tahun. Usia dapat mempengaruhi pengetahuan seseorang, dimana meningkatnya usia maka semakin banyak pengalaman yang didapat sehingga pengetahuan semakin baik, namun kemampuan atau mengingat suatu pengetahuan akan berkurang menjelang usia lanjut.

Berdasarkan hasil dalam penelitian ini responden dengan karakteristik pendidikan terakhir tertinggi sebagian besar berada pada tamatan SMA/SMK/SLTA yaitu 59 (56.7%) dan yang terkecil yaitu tingkat S2 sebanyak 4 (3.9%). Selain dari pendidikan formal, dapat diperoleh melalui orang lain maupun media massa antara lain majalah, televisi, surat kabar, dan radio. Dan seseorang dengan pendidikan rendah bukan berarti mutlak memiliki pengetahuan yang rendah pula. Namun pendapat lain mengatakan bahwa dengan pendidikan yang semakin tinggi maka seseorang akan semakin mudah menerima informasi sehingga semakin meningkat pula pengetahuan yang dimilikinya (Carter, 2011). Menurut pendapat peneliti, hasil penelitian ini sesuai dengan pendapat Notoatmodjo (2012) dimana pengetahuan bisa didapat selain melalui pendidikan formal dalam sekolah namun juga bisa diperoleh dari pendidikan nonformal di luar sekolah dan melalui pengalaman. Walaupun responden berada pada mayoritas berpendidikan rendah maka bukan berarti mutlak berpengetahuan rendah pula. Pendidikan tidak mempengaruhi pengetahuannya sebab responden dengan pengetahuan baik dapat memperoleh informasi dari pengalaman atau orang lain maupun media masa (Sumartini, 2020).

Menurut Notoatmodjo (2012) pendidikan seseorang mengenai kesehatan akan berpengaruh terhadap perilaku kesehatan, hal ini dikarenakan dengan pendidikan yang didapat akan memperoleh pengetahuan dan akan tercipta upaya pencegahan suatu penyakit. Semakin tinggi tingkat pendidikan seseorang akan memudahkannya menyerap ilmu pengetahuan, dengan demikian maka wawasannya akan lebih luas. Oleh karena itu, pengetahuan masyarakat tentang

COVID-19 merupakan aspek yang sangat penting dalam masa pandemik seperti sekarang ini. Masyarakat perlu mengetahui penyebab COVID-19, karakteristik virusnya, tanda dan gejala, istilah yang terkait dengan COVID-19, pemeriksaan yang diperlukan dan proses transmisi serta upaya pencegahan penyakit tersebut (Purnamasari, 2020). Seseorang yang mempunyai pengetahuan yang baik terkait perilaku sehat maka ada kecenderungan untuk berperilaku yang baik pula (Gladys, 2016). Hal ini berarti bahwa untuk meningkatkan perilaku sehat dan selamat, maka perlu juga meningkatkan pengetahuan mengenai kesehatan.

Selanjutnya untuk pekerjaan sebagian besar sebagai ibu rumah tangga yaitu 45 orang (43.3%) dan sebagian kecil sebagai pedagang sebanyak 3 orang (2.9%). Pengetahuan dan pengalaman seseorang dipengaruhi oleh pekerjaan, karena saat pekerjaan lebih sering menggunakan otak maka kemampuan otak terutama dalam menyimpan (daya ingat) akan bertambah ketika sering dipakai sehingga pengetahuannya menjadi baik. Sumartini (2020) menyatakan bahwa responden yang tidak bekerja mempunyai banyak waktu luang untuk mendapatkan informasi, dari berbagai sumber seperti majalah, koran, televisi, radio, maupun internet. Selain itu, penyuluhan oleh mahasiswa atau petugas kesehatan seringkali dihadiri oleh warga yang tidak bekerja.

2. Perilaku Pencegahan COVID-19 oleh Masyarakat

Perilaku yang baik dapat menjadi upaya pencegahan terhadap penularan COVID-19 (Audria, 2019). Perilaku kesehatan dipengaruhi oleh banyak faktor, diantaranya pengetahuan, persepsi, emosi, motivasi, dan lingkungan (Rahayu, 2014). Eksplorasi tentang perilaku kesehatan masyarakat dapat dilihat dari berbagai komponen, diantaranya persepsi tentang kerentanan penyakit, persepsi hambatan dalam upaya pencegahan, persepsi tentang manfaat, adanya dorongan, dan persepsi individu tentang kemampuan yang dimiliki untuk melakukan upaya pencegahan (Almi, 2020).

Penelitian ini menunjukkan bahwa perilaku pencegahan yang dilakukan responden sebagian besar pada kategori cukup baik (43.2%). Bentuk perilaku yang ditunjukkan antara lain kepatuhan dalam menjaga jarak saat di luar rumah, selalu mencuci tangan dengan sabun atau hand sanitizer sebelum masuk rumah, toko/minimarket, atm dan fasilitas lainnya, taat menggunakan masker saat berpergian dan tidak bersentuhan atau salaman dengan oranglain. Seseorang yang telah mengetahui tentang suatu informasi tertentu, maka dia akan mampu menentukan dan mengambil keputusan bagaimana dia harus menghadapinya. Dengan kata lain, saat seseorang mempunyai informasi tentang COVID-19, maka ia akan mampu untuk menentukan bagaimana dirinya harus berperilaku terhadap COVID-19 tersebut (Ahmadi, 2013).

Penelitian ini sejalan dengan yang dilakukan oleh Purnamasari, (2020) menunjukkan bahwa sebanyak 95,8% masyarakat Wonosobo mempunyai perilaku yang baik, bentuk perilaku

yang ditunjukkan antara lain kepatuhan dalam menggunakan masker saat berada di luar rumah, mencuci tangan dengan sabun atau hand sanitizer secara sering, menghindari kerumunan dan menjaga social ataupun physical distancing. Cuci tangan adalah salah satu cara yang efektif untuk membunuh kuman, diketahui virus COVID-19 dapat menempel pada bagian tubuh terutama tangan yang menyentuh benda yang sudah tertular oleh droplet. Disampaikan oleh Kementerian Kesehatan bahwa 75% penularan virus covid adalah melalui percikan air ludah pada benda (Kemenkes, 2020). Oleh karena itu dalam penelitian ini, sebagian responden melakukan cuci tangan setelah memegang benda yang telah disentuh sesuai dengan protokol kesehatan.

3. Hubungan Pengetahuan dengan Perilaku Pencegahan COVID-19

Hasil penelitian menunjukkan bahwa responden dengan pengetahuan yang baik dan perilaku pencegahan dengan cukup sebanyak 45 (43.2%). Berdasarkan uji yang dilakukan dengan *SPPS* terdapat nilai *p-value* = 0,001 dan nilai *p alpha* = 0,05, sehingga nilai *p value* < *p alpha* (0.001 < 0.05). Hal ini menunjukkan bahwa H_a diterima dan H_o ditolak yang artinya terdapat hubungan yang signifikan antara pengetahuan dengan perilaku pencegahan COVID-19 pada masyarakat di Dusun Potorono Banguntapan Bantul D.I. Yogyakarta.

Penelitian ini sejalan yang dilakukan oleh Purnamasari, (2020) menunjukkan hasil pengetahuan masyarakat Kabupaten Wonosobo tentang Covid 19 berada pada kategori Baik (90%) dan hanya 10% berada pada kategori cukup. Untuk perilaku masyarakat Kabupaten Wonosobo terkait Covid 19 seperti menggunakan masker, kebiasaan cuci tangan dan physical / social distancing menunjukkan perilaku yang baik sebanyak 95,8% dan hanya 4,2% masyarakat berperilaku cukup baik. Terdapat hubungan bermakna antara pengetahuan dengan perilaku masyarakat tentang Covid 19 dengan *p-value* 0,047.

Menurut Wawan dan Dewi (2010) mendeskripsikan bahwa pengetahuan merupakan hasil “tahu” dan ini terjadi setelah orang mengadakan penginderaan terhadap suatu objek tertentu. Pengetahuan tentang berbagai cara dalam mencapai pemeliharaan kesehatan, cara menghindari penyakit, maka akan meningkatkan pengetahuan masyarakat (Priyanto, 2018). Pengetahuan memegang peranan penting dalam penentuan perilaku yang utuh karena pengetahuan akan membentuk kepercayaan yang selanjutnya dalam mempersepsikan kenyataan, memberikan dasar bagi pengambilan keputusan dan menentukan perilaku terhadap objek tertentu (Novita dkk, 2014) sehingga akan mempengaruhi seseorang dalam berperilaku.

Peneliti berasumsi bahwa pengetahuan sangat menentukan setiap individu sehingga akan mempengaruhi perilaku dalam kehidupan sehari-hari. Karena semakin tinggi tingkat pengetahuan seseorang maka semakin mudah untuk menentukan apa yang harus ia pilih dan apa yang ia harus lakukan dalam kehidupannya. Sejalan dengan yang dikatakan oleh Prihantana,

(2016) bahwa pengetahuan memiliki kaitan yang erat dengan keputusan yang akan diambilnya, karena dengan pengetahuan seseorang memiliki landasan untuk menentukan pilihan. Selain itu, tingkat pengetahuan yang tinggi ini juga didukung dengan tingkat pendidikan, tingkat pendidikan seseorang yang tinggi akan semakin mudah untuk mendapatkan akses informasi tentang suatu permasalahan (Yanti B dkk, 2020). Penelitian lain yang sejalan dengan hasil penelitian ini adalah penelitian yang dilakukan oleh Clements JM (2020) yang menunjukkan bahwa masyarakat Amerika Serikat memiliki pengetahuan dan perilaku yang baik dan Zhong BL (2020) yang meneliti pada masyarakat China sebagai tempat awal ditemukannya Virus corona ini juga memiliki pengetahuan dan perilaku yang baik dan positif. Hal ini juga dihubungkan dengan pengalaman masyarakat China menghadapi wabah SARS pada Tahun 2000-an.

KESIMPULAN

Dari hasil penelitian dan penjabaran pada pembahasan, dapat disimpulkan bahwa terdapat hubungan antara pengetahuan dengan perilaku pencegahan COVID-19 pada masyarakat. Semakin tinggi pengetahuan masyarakat, perilaku pencegahan COVID-19 yang ditunjukkan semakin baik pula.

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e-ISSN 2579-8812

p-ISSN 2443-0854



Hubungan Pengetahuan tentang Covid-19 dengan Perilaku Pencegahan Covid-19 pada Pedagang Pasar Tradisional

The Relationship of Knowledge about Covid-19 with Covid-19 Prevention Behavior in Traditional Market Traders

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ABSTRAK

Pendahuluan: perilaku pedagang pasar tradisional yang belum menggunakan masker secara konsisten dan sulitnya menjaga jarak menyebabkan angka penularan Covid-19 dipasar menjadi salah satu tempat yang rawan dalam penularan Covid-19 hal ini. **Tujuan :** penelitian ini bertujuan untuk menganalisis hubungan pengetahuan tentang Covid-19 dengan perilaku pencegahan Covid-19. **Metode :** desain penelitian ini menggunakan anaitik corelasinoal, populasi 313 pedagang pasar tradisional plos, sampel 50 pedagang pasar tradisional Plos dengan teknik pengambilan sampel accidental sampling. Instrumen yang digunakan adalah kuisioner pengetahuan dan ceklist perilaku pencegahan Covid-19. Uji statistik yang digunakan menggunakan *chi square* **Hasil :** pengetahuan pedagang pasar setengahnya kategori cukup 25 (50%) dan untuk perilaku sebagian besar kategori baik 32 pedagang (64%). hasil uji *chi square* didapatkan nilai $p = 0.000$. **Kesimpulan:** ada hubungan antara pengetahuan hubungan pengetahuan tentang Covid-19 dengan perilaku pencegahan Covid-19. Perlu adanya sosialisasi yang masif guna merubah perilaku pedagang yang masih belum mematuhi protokol kesehatan.

Kata Kunci: Pengetahuan,Perilaku,Covid-19

ABSTRACT

Introduction: the behavior of traditional market traders who have not used masks consistently and the difficulty of maintaining a distance has caused the number of Covid-19 transmissions to cause the market to become a place that is prone to Covid-19 transmission. **Objective:** this study aims to analyze the relationship between knowledge about Covid-19 and Covid-19 prevention behavior. **Methods:** the design of this research is using corelasinoal analytic, a population of 313 Plosotraditional market traders, a sample of 50 Plosotraditional market traders with an accidental sampling technique. The instruments used are a knowledge questionnaire and a checklist of COVID-19 prevention behavior. The statistical test used was *chi square*. **Results:** half of the market traders' knowledge was in sufficient category 25 (50%) and for the behavior of most of the good category 32 traders (64%). Based on the results of the *chi square* test, the p value = 0.000. **Conclusion:** a relationship between knowledge of the relationship between knowledge about Covid-19 and COVID-19 prevention behavior. Massive socialization is needed to change the behavior of traders who still do not comply with health protocols

Keywords: Knowledge,Behavior,Covid-19

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Received 30 Juli 2021; Accepted 28 September 2021

Publish by STIKes Insan Cendekia Medika Jombang, Indonesia

PENDAHULUAN

Kasus Covid-19 di Indonesia membuat masyarakat menjadi panik dan mengakibatkan ketakutan dari berbagai kalangan. Adapun penularan Covid-19 ini terjadi melalui droplet atau cairan tubuh yang terpercik pada seseorang atau pada benda di sekitarnya yang berjarak 1-2 meter melalui batuk maupun bersin. Salah satu yang paling berpengaruh dalam pencegahan adalah bagaimana Pengetahuan masyarakat dapat berpengaruh terhadap perilaku warga (Sulaeman dan Supriadi, 2020). Hal ini didukung oleh Ausrianti bahwa kurangnya pengetahuan masyarakat terhadap Covid-19 tersebut. Salah satu cara yang bisa dilakukan untuk merubah perilaku masyarakat dengan meningkatkan pengetahuan masyarakat dibutuhkan metode yang baik dan benar berupa edukasi hingga sampai ke semua lapisan masyarakat. (Tunda *et al*, 2020)

Kasus virus corona muncul dan menyerang manusia pertama kali di provinsi Wuhan, China. Secara global, menurut data WHO pada pukul 04:50 CEST, 1 September 2021, ada 217.558.771 kasus Covid-19 yang dikonfirmasi, termasuk 4.715.240 kematian. Sedangkan di Indonesia sendiri 4.100.138 terkonfirmasi positif 3.776.891 sembuh 133.676 meninggal, khusus daerah Jawa Timur ada 378.158 kasus positif 340.716 sembuh 27.965 meninggal, Berdasarkan data dari Pemprov Jatim yang mengutip sumber Satuan Tugas Covid-19 Nasional terkait peta risiko per 1 September 2021, daerah zona merah, yakni Kota Surabaya, Kota Pasuruan, Kabupaten Sidoarjo, Kabupaten Gresik, Kota Malang, Kota Batu, Kota Mojokerto, Kabupaten Jombang dan Kabupaten Mojokerto.

Berdasarkan hasil penelitian yang dilakukan Musidah (2021) terhadap Pedagang UMKM di sekitar alun-alun Kutuharjo Kaliwungu sebagian kecil sudah menggunakan masker tetapi masih banyak yang tidak mau menggunakan masker ketika berjualan, sebagian yang mau menggunakan hanya digunakna sebagai kalung di leher belum seluruhnya mau melakukan upaya pencegahan penyebaran infeksi Covid-19, masih banyak dari pedagang yang tidak menggunakan masker (Musidah & Muliawati, 2021).

Pasar adalah salah satu tempat yang banyak menjadi klaster dalam penyebaran Covid-19. Hal ini dikarenakan pasar sebagai tempat orang berkumpul terjadinya jual beli kebutuhan pokok masyarakat. Adanya interaksi dan transaksi yang terjadi di dalam pasar memudahkan transmisi penyebaran Covid-19. Upaya pemutusan rantai penyebaran Covid-19 memerlukan pengetahuan dan sikap yang baik sehingga timbul perilaku keselamatan. Perilaku keselamatan adalah perilaku yang berorientasi pada keselamatan yang diterapkan dalam pekerjaan sehari (Oktaviarni & Anggita, 2021)

Upaya terbaik dalam pencegahan penularan Covid-19 adalah dengan melindungi diri dantaat melaksanakan protokol kesehatan. Pengetahuan dan sikap merupakan faktor utama dalam menentukan seseorang dalam bertindak atau berperilaku sehat. Pengetahuan dan sikap dari masyarakat menjadi tolak ukur mengenai kesadaran masyarakat dalam pencegahan Covid-19. Pengetahuan berpengaruh kepada sikap yang kemudian akan merubah perilaku individu menjadi lebih

baik (Naton et al,2021). Tujuan dari penelitian ini adalah untuk menganalisis hubungan pengetahuan pedagang pasar tentang Covid-19 dengan perilaku pencegahan Covid-19 pada pedagang pasar.

METODE PENELITIAN

Desain penelitian yang digunakan dalam penelitian ini adalah survey analitik dengan rancangan *Cross Sectional*. Populasi dalam penelitian ini adalah pedagang pasar tradisional Ploso kabupaten Jombang sejumlah 313. Sampel dalam penelitian ini adalah pedagang pasar tradisional Ploso yang ada pada saat penelitian sejumlah 50 responden. Teknik sampling yang digunakan dalam penelitian ini adalah *accidental sampling*. Variabel independent dalam penelitian ini adalah pengetahuan tentang Covid-19 dan variabel dependent adalah perilaku pencegahan Covid-19 pada pedagang pasar tradisional. Instrumen yang digunakan dalam penelitian ini adalah kuisioner pengetahuan pedagang pasar yang terdiri dari 15 pertanyaan dengan hasil uji validitas dan realibilitas 0,797 dan lembar observasi perilaku pencegahan Covid-19 yang terdiri dari 8 item ceklist. Penyebaran kuisioner dilakukan pada pagi hari kepada pedagang dipasar Ploso yang bersedia menjadi responden. Pelaksanaan penelitian dilakukan selama 3 hari untuk mendapatkan 50 responden mengingat peneliti juga harus melakukan penelitian disela-sela pedagang berjualan. Setelah dilakukan pengisian kuisioner peneliti memberikan sebuah pendidikan kesehatan kepada pedagang sebagai *reward* atas berpartisipasi dalam penelitian. Dalam Prosedur penelitian Sebelum penelitian peneliti melakukan izin kepada dinas perdagangan dan perindustrian kabupaten jombang untuk dilakukan penelitian di pasar wilayah Jombang khususnya Pasar Ploso. Selanjutnya pengolahan data di mulai dari *editing, coding, scoring* dan *tabulating*. Uji statistik menggunakan spss for window versi 20 dengan analisis statistik *chi-square* Peneliti sudah melakukan uji etik penelitian di komisi etik Sekolah Tinggi Ilmu Kesehatan Husada Jombang dengan no 0113-KEPKSHJ.

HASIL DAN PEMBAHASAN

Tabel 1. Karakteristik subjek penelitian menurut variabel jenis kelamin ,usia ,pendidikan, pernah mendapatkan informasi, sumber informasi , pernah terpapar Covid-19

No	Kategori	frekuensi	Presentase
1	Jenis kelamin		
	1. Laki-laki	13	26%
	2. Perempuan	37	74%
	Jumlah	50	100%
2	Umur		
	1. 21-30	1	2%
	2. 41-40	12	24%
	3. 41-50	22	44%
	4. 51-60	9	18%
	5. >61	6	12%
	Jumlah	50	100%
3	Pendidikan		
	1. Sd	8	16%
	2. SMP	17	34%

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 Received 30 Juli 2021; Accepted 28 September 2021
 Publish by STIKes Insan Cendekia Medika Jombang, Indonesia

No	Kategori	frekuensi	Presentase
3.	SMA	24	48%
4.	PT	1	2%
	Jumlah	50	100%
4	Pernah mendapatkan sumber informasi		
	1. Pernah	31	62%
	2. Tidak pernah	19	38%
	Jumlah	50	100%
5	Sumber informasi		
	1. Tenaga kesehatan	10	32,5%
	2. Sosial media	0	0%
	3. Teman, keluarga	7	22,5%
	4. Televisi/radio	14	45%
	Jumlah	50	100%
6	Pernah terpapar Covid		
	1. Pernah	1	2%
	2. Tidak pernah	49	98%
	Jumlah	50	100%

Sumber primer, 2021

Berdasarkan tabel 1 didapatkan hasil sebagian besar pedagang berjenis kelamin perempuan 37 (74%) dan sebagian kecil berjenis kelamin laki-laki 13 (26%). Berdasarkan umur pedagang hampir setengahnya berumur 41-50 tahun sebanyak 22 pedagang (44%) dan sebagian kecil berumur 21-30 tahun sebanyak 1 pedagang (2%). Berdasarkan pendidikan setengahnya berpendidikan SMA 24 orang (48%) dan sebagian kecil berpendidikan PT 1 orang (2%). Sumber informasi tentang Covid-19 sebagian besar sudah pernah mendapatkan info 31 responden (62%). Berdasarkan sumber informasi sebagian besar mendapatkannya dari televisi atau radio 14 responden (28%). Berdasarkan pengalaman apakah pernah sakit Covid-19 sebagian besar responden tidak pernah sebanyak 49 responden (98%) pengalaman keluarga yang pernah menderita Covid-19.

Tabel 2. Data kuesioner pengetahuan tentang Covid-19 dan motivasi pencegahan protokol kesehatan

No	Kategori	frekuensi	Presentase
1	Perilaku		
	1. Baik	32	64%
	2. Tidak baik	18	36%
	Jumlah		
2	Pengetahuan		
	1. Baik	23	46%
	2. Cukup	25	50%
	3. kurang	2	4%
	Jumlah	50	100%

Sumber primer, 2021

Berdasarkan tabel 2 didapatkan hasil setengahnya pengetahuan pedagang pasar sebagian kecil kurang 4 responden (4%) dan setengahnya cukup 25 (50%) . untuk perilaku dalam melakukan proses yang mempunyai perilaku positif/baik 32 (64%). perilaku negatif atau tidak baik sebanyak 18 pedagang (36%) dan 32 responden (64%) berperilaku baik..

Tabel 3. Tabulasi silang antara pengetahuan tentang Covid-19 dan motivasi pencegahan protokol kesehatan

No	Pengetahuan	perilaku pencegahan Covid-19				Total
		Positif	Negatif			
1	Baik	5	10%	2	4%	14%
2	Cukup	18	36%	7	14%	28%
3	Kurang	0	0%	18	26%	0%
Jumlah		23	46%	27	54%	100%
Uji chi-square		P value : 0,000< 0,005				

Sumber data primer, 2021

Berdasarkan hasil data tabulasi silang didapatkan hasil responden yang berpengetahuan cukup berperilaku positif sebanyak 18 (36%) dan responden yang berpengetahuan kurang berperilaku negatif sebanyak 18 (26%).

Berdasarkan tabel 2 didapatkan hasil setengahnya pengetahuan pedagang pasar cukup dan sebagian kecil kurang (2%) dan setengahnya cukup 25 (50%)

Pengetahuan juga merupakan domain terpenting dalam terbentuknya perilaku (Donsu, 2017). Pengetahuan yang harus dimiliki oleh masyarakat dengan baik dan benar saat ini dalam mengurangi penyebaran atau penularan Covid-19 adalah mencakup pengetahuan tentang pengertian, penyebab, tanda dan gejala serta cara penularan dan pencegahan, dan pengobatan Covid-19 (Sagala *et al*, 2021). Pengetahuan merupakan pemahaman partisipan tentang topik yang diberikan. Pengetahuan adalah kemampuan untuk menerima, mempertahankan, dan menggunakan informasi, yang dipengaruhi oleh pengalaman dan keterampilan. Sebagian besar dari pengetahuan yang dimiliki seseorang berasal dari pendidikan baik formal dan informal, pengalaman pribadi maupun orang lain, lingkungan, serta media massa (Siltrakool, 2016).

Banyak faktor yang mempengaruhi pengetahuan responden tentang pencegahan Covid-19. Adapun faktor-faktor yang mempengaruhi pengetahuan yaitu pendidikan, umur, pekerjaan dan faktor eksternal lainnya Notoatmodjo (2017)

Berdasarkan karakteristik responden diketahui bahwa sebagian besar responden berumur 41-50 tahun. Faktor yang memengaruhi meningkatnya pengetahuan adalah bertambahnya umur seseorang yang mengalami perubahan aspek fisik dan mental (Mubarak, 2017). Umur seseorang dapat memengaruhi tingkat pengetahuan seseorang karena semakin cukup umur, tingkat kematangan dan kekuatan seseorang akan lebih matang dalam berpikir dan bekerja (Wawan, 2016)

Berdasarkan hasil penelitian dan teori ada keterkaitan atau keselaran yaitu pada seseorang yang semakin matang usianya akan bertambah pula pengetahuannya. Hal ini didukung pula dari pendidikan responden yang rata-rata sudah SMA, hal ini selaras dengan teori semakin tinggi pendidikan seseorang akan semakin baik pula pengetahuannya. Ada beberapa faktor eksternal yang mempengaruhi pengetahuan responden yaitu sumber informasi yang didapatkan responden mengenai Covid-19 merupakan salah satu faktor pengetahuan baik responden 1 responden

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berpendidikan SD tetapi pengetahuan dan perilakunya baik. hal ini salah satu yang mempengaruhi adalah lingkungan atau sumber informasi yang sebelumnya di dapat. Ada 2 responden yang berpengetahuan kurang, hal ini disebabkan oleh tidak mendapatkannya sumber informasi yang salah atau hoak yang menyebabkan kesalahan dalam persepsi tentang Covid-19.

Berdasarkan perilaku pedagang pasar Plosodalem melakukan proses mempunyai perilaku positif/baik 32 (64%). perilaku negatif atau tidak baik sebanyak 18 pedagang (36%).

Perilaku adalah segala bentuk aktivitas individu baik dapat yang dapat dilihat langsung maupun yang tidak dapat dilihat oleh orang lain. Oleh pihak luar Menurut Notoatmojo (2016) dalam penelitiannya mengungkapkan perilaku yang didasarkan pada pengetahuan akan lebih baik dari pada perilaku yang tidak dilandaskan oleh pengetahuan. beberapa faktor diantaranya yang mempengaruhi terjadinya perilaku individu adalah yaitu sosiopsikologis. Yang termasuk dalam faktor sosio psikologis adalah sikap, emosi dan kepercayaan Notoatmojo (2016). Hasil penelitian ini sejalan dengan penelitian klinis lainnya yaitu dari 1.102 responden di Indonesia mayoritas berperilaku baik dengan prevalensi 93%. Selain itu penelitian lain yang dilaksanakan di Provinsi DKI Jakarta memberikan hasil yang sejalan dengan penelitian ini yaitu 70,3% responden memiliki perilaku yang baik. Status kesehatan pedagang tradisional terdiri dari 3 orang dalam pengawasan, 3 kasus konfirmasi, dan 80 pedagang yang sehat. Pengetahuan pedagang tradisional mengenai kesehatan dan keselamatan di era Covid-19 sebagian besar mendapat pengetahuan baik yaitu 53 (61,6%). Sikap pedagang tradisional mengenai kesehatan dan keselamatan di era Covid-19 sebagian besar mendapat sikap positif 70 (81,4%). Perilaku pedagang tradisional mengenai keselamatan di era Covid-19 sebagian besar mendapat perilaku baik 63 (73,3%).

Pada beberapa pedagang yang tidak patuh akan protokol kesehatan pencegahan Covid-19 adalah kurang nya kesadaran akan penting dan bahaya Covid-19 alasan utama dalam penerapan adalah adanya hukuman atau pengawasan dari satgas Covid-19 untuk menggunakan masker pada saat dipasar. Hal ini yang membuat tidak adanya perubahan perilaku yang lebih langgeng. Masyarakat hanya menggunakan masker pada saat ada petugas dan menurunkan masker disaat setelah selesai. Alasan lain adalah mereka merasa bahwa ada perasaan tidak nyaman dalam menggunakan masker. Walaupun dari segi pengetahuan mereka tau bahwa salah satu pencegahan Covid-19 adalah dengan menerapkan protokol kesehatan.

Berdasarkan uji statistik *chi-square* didapatkan hasil bahwasanya nilai $p < 0,000$ yang artinya ada hubungan antara pengetahuan dan perilaku pencegahan Covid-19. Pengetahuan merupakan kunci dari perubahan perilaku, dan individu dapat memperoleh pengetahuan dan ketrampilan melalui proses belajar (Liu et al, 2016). Pengetahuan pedagang pasar mengingat pekerjaan mereka pada faktor esensial yang selalu bersingungan dengan orang lain. Pengetahuan yang mereka harus tau diantaranya seperti sekarang ini, yang meliputi penyebab Covid-19 dan karakteristik virusnya, tanda dan gejala, istilah yang terkait dengan Covid-19, pemeriksaan yang diperlukan dan proses transmisi

yang tinggi tentang Covid-19 ini berpengaruh terhadap kejadian dan pencegahan penyakit Covid-19 (Purnamasari,2020) Dengan demikian pengetahuan masyarakat yang masih perlu diluruskan dan perilaku masyarakat yang masih negative agar bisa diupayakan melalui kegiatan pembelajaran melalui Health edukasi oleh pihak-pihak yang berwenang. Kerjasama dalam mengedukasi sangat dibutuhkan misal dengan forum kesehatan desa atau sejenisnya dapat mengambil peran dalam upaya pelaksanaan kegiatan dimaksud.

KESIMPULAN

Hasil penelitian didapatkan bahwa ada hubungan antara pengetahuan tentang Covid-19 dengan perilaku pencegahan Covid-19 pada pedagang pasar tradisional Ploso kabupaten jombang.

UCAPAN TERIMA KASIH

Terimakasih kepada seluruh responden dan pihak-pihak yang telah membantu selama proses penelitian dan terima kasih kepada LLDikti 7 atas kepercayaanya dalam memberikan dana penelitian dalam bentuk Hibah Penelitian Dosen Pemula.

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 Received 30 Juli 2021; Accepted 28 September 2021
 Publish by STIKes Insan Cendekia Medika Jombang, Indonesia

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 Received 30 Juli 2021; Accepted 28 September 2021
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**ANALISIS HUBUNGAN PENGETAHUAN DENGAN PERILAKU MASYARAKAT
TERHADAP PENCEGAHAN PENULARAN COVID-19
DI KELURAHAN KORONG GADANG**

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Abstrak

Coronavirus Disease 2019 atau Covid-19 merupakan pandemi yang telah menyebabkan tingginya angka mortalitas di berbagai belahan dunia termasuk Indonesia. Pentingnya kesadaran masyarakat untuk memutus rantai penularan Covid-19. Pengetahuan tentang Covid-19 sangat penting dimiliki oleh masyarakat sehingga masyarakat mampu untuk mengambil keputusan dalam berperilaku yang tepat dalam rangka memutus rantai penularan Covid-19. Tujuan penelitian yaitu untuk mengetahui analisis pengetahuan dan perilaku masyarakat terhadap pencegahan penularan Covid-19 di Kelurahan Korong Gadang. Penelitian ini merupakan penelitian kuantitatif. Sampel dalam penelitian ini adalah warga Kelurahan Korong Gadang berjumlah sebanyak 38 responden yang dipilih menggunakan teknik *purposive sampling*. Hasil penelitian menunjukkan 65,8 % responden memiliki pengetahuan yang tinggi tentang Covid-19, 68,4 % responden memiliki perilaku yang baik terhadap pencegahan penularan Covid-19 dan terdapat hubungan pengetahuan dengan perilaku terhadap pencegahan penularan Covid-19.

Kata Kunci : Pengetahuan, Perilaku, Penularan Covid-19, Pencegahan Covid-19

Abstract

Coronavirus Disease 2019 or Covid-19 is a pandemic that caused high mortality rates in various parts of the world, including Indonesia. The importance of public awareness to break the chain of transmission of Covid-19. Knowledge about Covid-19 is fundamental, so people can make decisions about behaving appropriately to break the chain of transmission of Covid-19. The research objective was to determine the analysis of people's knowledge and behavior on preventing Covid-19 transmission in Kelurahan Korong Gadang. This research is quantitative. In this research, the sample was 38 residents of the Kelurahan Korong Gadang who were selected using the purposive sampling technique. The results showed that 65.8% of respondents had high knowledge about Covid-19, 68.4% of respondents had good behavior towards preventing the transmission of Covid-19, and there was a relationship between knowledge and behavior towards the prevention of Covid-19 transmission.

Keywords: Knowledge, Behavior, Covid-19 Transmission, Covid-19 Prevention



PENDAHULUAN

Corona Virus Disease 2019 atau Covid-19 adalah jenis penyakit baru yang disebabkan oleh infeksi *Virus Severe Acute Respiratory Syndrome Coronavirus 2* (SARS-CoV-2) atau yang dikenal dengan Novel Coronavirus (2019-nCoV) (Singhal, 2020). Pandemi Covid-19 menjadi peristiwa yang mengancam kesehatan masyarakat secara umum dan telah menarik perhatian dunia. Pada Tanggal 30 Januari 2020, WHO (*World Health Organization*) telah menetapkan pandemi Covid-19 sebagai keadaan darurat kesehatan masyarakat yang menjadi perhatian dunia internasional (Guner, Hasanoglu, & Aktas, 2020). Berdasarkan data Gugus Tugas Covid-19 Republik Indonesia, per tanggal 12 Agustus 2020, jumlah pasien total positif Covid-19 di dunia mencapai 20.388.408 orang, yang diakumulasikan dari pasien positif dirawat, pasien positif sembuh, serta pasien positif meninggal. Di Indonesia, total pasien positif Covid-19 sebesar 130.718 orang, dengan pasien sembuh sebesar 85.798 orang dan pasien meninggal sebesar 5.908 orang (Gugus Tugas COVID-19, 2020).

Peningkatan kasus Covid-19 yang terjadi di masyarakat didukung oleh proses penyebaran virus yang cepat. Penyakit ini ditularkan melalui droplet (percikan) pada saat berbicara, batuk dan bersin dari orang yang terinfeksi virus Corona. Selain itu penyakit ini juga dapat ditularkan melalui kontak fisik (sentuhan atau jabat tangan) dengan penderita serta menyentuh wajah, mulut, hidung oleh tangan yang terpapar virus Corona (Singhal, 2020). Gejala klinis yang muncul akibat terinfeksi virus ini seperti gejala flu biasa (demam, batuk, pilek, nyeri tenggorokan, nyeri otot, nyeri kepala) hingga komplikasi berat (diare dan pneumonia) hingga menyebabkan kematian (Huang dkk, 2020). Hal ini akan meningkatkan ancaman dalam masa pandemik Covid-19 sehingga jumlah kasus Covid-19 di masyarakat dapat terus meningkat.

Guna melawan adanya peningkatan kasus Covid-19, maka berbagai tindakan preventif mutlak harus dilaksanakan, baik oleh pemerintah ataupun masyarakat. Upaya preventif sejauh ini merupakan praktik terbaik untuk mengurangi dampak pandemi Covid-19, mengingat belum adanya pengobatan yang dinilai efektif dalam melawan virus SARS-CoV-2. Saat ini, tidak adanya vaksin untuk SARS-CoV-2 yang tersedia dan telah memenuhi berbagai fase uji klinis,

sehingga upaya preventif terbaik yang dilakukan adalah dengan memutus mata rantai penyebaran Covid-19 melalui isolasi, deteksi dini, dan melakukan proteksi dasar yaitu melindungi diri dan orang lain dengan cara sering cuci tangan dengan air mengalir dan sabun atau menggunakan sanitizer, menggunakan masker dan tidak menyentuh area muka sebelum mencuci tangan, serta menerapkan etika batuk dan bersin dengan baik (Dirjen P2P Kemkes RI, 2020).

Upaya pemutusan mata rantai penyebaran Covid-19 memerlukan pemahaman dan pengetahuan yang baik dari seluruh elemen termasuk masyarakat. Pengetahuan masyarakat tentang Covid-19 sangat diperlukan sebagai dasar masyarakat dalam menunjukkan perilaku pencegahan penularan Covid-19. Pengetahuan dan perilaku yang nyata dari masyarakat terkait tindakan pencegahan penularan Covid-19 akan senantiasa mampu menurunkan jumlah kasus Covid-19, sehingga masa pandemi Covid-19 dapat berakhir dengan cepat. Maka dari itu, peneliti tertarik untuk melakukan penelitian tentang analisis hubungan pengetahuan dengan perilaku masyarakat terhadap pencegahan penularan Covid-19 di Kelurahan Korong Gadang.

METODE PENELITIAN

Penelitian ini merupakan penelitian kuantitatif dengan desain deskriptif. Penelitian dilakukan pada bulan Desember tahun 2020. Sampel dalam penelitian ini adalah warga kelurahan Korong Gadang. Jumlah responden pada penelitian ini adalah sebanyak 38 responden yang dipilih menggunakan teknik *purposive sampling*. Kriteria inklusi penelitian ini antara lain : masyarakat yang tinggal di kelurahan Korong Gadang, bersedia menjadi responden dan bisa membaca.

HASIL

A. Analisa Univariat Karakteristik Responden

Tabel 1.1
Distibusi Karakteristik Responden

Karakteristik	f	%
Usia		
20-35 tahun	11	28,9
36-45 tahun	15	39,5
46-55 tahun	9	23,7
55-65 tahun	3	7,9
Jenis kelamin		
Laki-laki	15	39,5

Perempuan	23	60,5
Pekerjaan		
IRT	5	13,2
Karyawan Swasta	22	57,9
Wiraswasta	8	21
PNS	3	7,9
Tingkat Pendidikan		
SD	1	2,6
SMP	4	10,5
SMA	20	52,6
D3/S1		

Berdasarkan table 1.1 diatas, karakteristik responden berdasarkan usia yang paling banyak adalah usia 36-45 tahun 15 (39,5%) responden, jenis kelamin yang paling banyak adalah jenis kelamin perempuan sebanyak 23 (60,5%) responden, pekerjaan yang paling banyak adalah karyawan swasta 22 (57,9%) responden dan tingkat pendidikan yang paling banyak adalah tingkat pendidikan D3/ S1 sebanyak 20 (52,6%) responden.

Tingkat Pengetahuan Responden Tentang Covid-19

Tabel. 1.2
Tingkat Pengetahuan Responden
Tentang Covid-19

Pengetahuan	Frekuensi	%
Tinggi	25	65,8
Sedang	13	34,2
Total	38	100

Berdasarkan table 1.2 diatas, pengetahuan responden tentang Covid-19 berada pada kategori tinggi sebanyak 25 (65,8%) responden.

1. Perilaku Responden Terkait Pencegahan Penularan Covid-19

Tabel. 1.3
Distribusi Perilaku Responden Terkait
Pencegahan Penularan Covid-19

Perilaku	f	%
Baik	26	68,4
Cukup	12	31,6
Total	38	100

Berdasarkan table 1.3 diatas perilaku responden terkait pencegahan penularan

Covid-19 berada pada kategori baik sebanyak 26 (68,64 %) responden.

B. Analisa Bivariat

Hubungan Pengetahuan dengan Perilaku Responden Terhadap Pencegahan Penularan Covid-19

Tabel 1.4
Hubungan Pengetahuan dan Perilaku
Responden Terhadap Pencegahan
Penularan Covid-19

Pengetahuan	Perilaku					
	Baik		Cukup		Jumlah	
	f	%	f	%	F	%
Tinggi	22	88	3	12	25	100
Sedang	4	30,8	9	69,2	13	100
Total	26		12		38	100

p-value 0,05

Berdasarkan table 1.4 diatas di dapatkan hasil nilai χ^2 hitung = 12,99 dengan nilai χ^2 tabel = 3,841, dapat disimpulkan terdapat hubungan yang bermakna antara pengetahuan dengan perilaku masyarakat terhadap pencegahan penularan Covid-19.

PEMBAHASAN

Dari hasil penelitian didapatkan sebanyak 25 (65,8%) responden pengetahuan berada pada kategori tinggi. Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Yanti dkk (2020) dimana dari 1.102 responden di Indonesia, mayoritas responden memiliki tingkat pengetahuan yang baik terkait *social distancing* dalam rangka pencegahan penularan Covid-19 dengan prevalensi mencapai 99%. Selain itu penelitian lain yang dilakukan oleh Utami dkk (2020) juga memberikan hasil yang sejalan dengan penelitian ini yaitu 83% responden memiliki pengetahuan yang baik dalam pencegahan Covid-19. Dari beberapa penelitian tersebut, maka dapat dilihat bahwa pengetahuan menjadi aspek penting yang perlu diperhatikan dalam melakukan pemecahan terhadap permasalahan khususnya

terkait Covid-19. Tingkat pengetahuan tinggi pada masyarakat di Kelurahan Korong Gadang didukung dengan tingkat pendidikan sebagian besar responden adalah pendidikan tinggi (diploma dan sarjana).

Salah satu faktor internal yang mempengaruhi tingkat pengetahuan seseorang adalah tingkat pendidikan, dimana semakin tinggi tingkat pendidikan seseorang maka semakin tinggi pula pengetahuan. Hal ini diperjelas oleh Mubarak dalam Muhammad Tauq (2013) yang mengatakan bahwa semakin tinggi tingkat pendidikan seseorang semakin mudah mereka menerima informasi kesehatan. Sebaliknya jika seseorang yang tingkat pendidikannya rendah, maka akan menghambat perkembangan seseorang terhadap penerimaan, informasi kesehatan dan nilai-nilai baru yang diperkenalkan. Tingkat pendidikan seseorang yang tinggi akan semakin mudah untuk mendapatkan akses informasi tentang suatu permasalahan (Yanti B dkk, 2020). Pengetahuan masyarakat tentang Covid-19 merupakan aspek yang sangat penting dalam masa pandemic seperti sekarang ini, yang meliputi penyebab Covid-19 dan karakteristik virusnya, tanda dan gejala, istilah yang terkait dengan covid, pemeriksaan yang diperlukan dan proses transmisi serta upaya pencegahan penyakit tersebut. Pengetahuan masyarakat Korong Gadang yang tinggi tentang Covid-19 ini berpengaruh terhadap kejadian dan pencegahan penyakit Covid-19. Pengetahuan yang baik dapat didukung oleh penerimaan terhadap informasi yang beredar di masyarakat tentang covid-19 (Sulistyaningtyas, 2020). Menurut Olum R, Chekwueh dkk (2020) pendidikan professional berkelanjutan diperlukan untuk meningkatkan pengetahuan dan mengubah sikap negative serta meningkatkan praktik pencegahan dan pengobatan.

Perilaku yang baik dapat menjadi upaya pencegahan terhadap penularan Covid-19 (Audria, 2019). Eksplorasi tentang perilaku kesehatan masyarakat dapat dilihat dari berbagai komponen, diantaranya persepsi tentang kerentanan penyakit, persepsi hambatan dalam upaya pencegahan, persepsi tentang manfaat, adanya dorongan, dan persepsi individu tentang kemampuan yang dimiliki untuk melakukan upaya pencegahan (Almi, 2020). Dalam penelitian ini, menunjukkan sebanyak 26 (68,4%) responden mempunyai perilaku baik

dalam pencegahan penularan Covid-19. Bentuk perilaku yang ditunjukkan antara lain kepatuhan dalam menggunakan masker saat berada diluar rumah, mencuci tangan dengan sabun atau sanitizer, menghindari kerumunan dan melakukan *physical distancing*. Cuci tangan adalah salah satu cara yang efektif untuk membunuh kuman, diketahui virus covid-19 dapat menempel pada bagian tubuh terutama tangan yang menyentuh benda yang sudah tertular oleh droplet.

Penelitian ini sejalan dengan penelitian yang dilakukan oleh Purnamasari (2020) yang melakukan penelitian pada masyarakat Wonosobo dengan hasil masyarakat Wonosobo mempunyai perilaku yang baik pada pencegahan Covid-19. Hasil penelitian ini sejalan dengan penelitian lainnya, dimana dari 1.102 responden di Indonesia 93 % memiliki perilaku yang baik terkait penerapan *Social Distancing* (Yanti B, dkk, 2020). Perilaku yang baik merupakan upaya untuk mencegah penularan Covid-19 (Purnamasari, 2020).

Perilaku yang baik dalam pencegahan penularan Covid-19 pada responden salah satunya disebabkan oleh pengetahuan responden yang tinggi tentang Covid-19. Pengetahuan sangat penting dalam melanjutkan aspek sikap dan perilaku, karena jika seseorang tidak tahu maka tidak akan ada tindakan nyata yang dilakukan. Pengetahuan masyarakat dalam mencegah transmisi penyakit akan menekan penularan Covid-19 lebih lanjut (Law, Leung & Xu, 2020).

Dari penelitian ini juga didapatkan hasil terdapat hubungan yang bermakna antara pengetahuan dan perilaku masyarakat terhadap pencegahan penularan Covid-19 dengan nilai χ^2 hitung $\geq \chi^2$ tabel (χ^2 hitung = 12,99 dengan nilai χ^2 tabel = 3,841). Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Purnamasari (2020) dimana terdapat hubungan yang bermakna antara pengetahuan dengan perilaku masyarakat tentang Covid-19. Selain itu hasil penelitian ini juga sejalan dengan penelitian yang dilakukan oleh Prihati dkk (2020) dimana dari hasil penelitian menunjukkan bahwa semakin baik pengetahuan masyarakat, maka semakin baik pula tindakan dalam pencegahan Covid-19.

Baiknya perilaku masyarakat di Korong Gadang dalam melakukan upaya pencegahan penularan Covid-19 dapat dipengaruhi oleh tingginya pengetahuan responden tentang Covid-19.

Seseorang yang telah mengetahui tentang suatu informasi tertentu, maka dia akan mampu menentukan dan mengambil keputusan bagaimana dia harus menghadapinya. Dengan kata lain, saat seseorang mempunyai informasi tentang Covid-19, maka ia akan mampu untuk menentukan bagaimana dirinya harus berperilaku terhadap Covid-19 tersebut (Ahmadi, 2013). Perilaku seseorang menjadi aspek penting yang perlu diperhatikan dalam rangka mencegah dan menangani kasus Covid-19. Kepatuhan dalam melakukan pencegahan Covid-19 dipengaruhi oleh beberapa faktor antara lain pengetahuan, persepsi, motivasi dan keyakinan terhadap upaya pengontrolan dan pencegahan penyakit, terhadap lingkungan, pelayanan kesehatan, dan kemampuan mengakses sumber yang ada (Sinuraya, 2018).

Menurut teori Model Pengetahuan-Sikap-Perilaku, pengetahuan merupakan faktor esensial yang dapat mempengaruhi perubahan perilaku, dan individu dapat memperoleh pengetahuan dan keterampilan melalui proses belajar (Liu et al, 2016). Dengan demikian pengetahuan masyarakat yang masih perlu diluruskan dan perilaku masyarakat yang masih negatif dapat diupayakan dengan kegiatan pembelajaran melalui edukasi oleh pihak-pihak berwenang. Masyarakat tidak patuh terhadap protokol kesehatan pandemi Covid-19 disebabkan masyarakat kurang memiliki pemahaman resiko tertular Covid-19, tujuan pencegahan dan bagaimana prosedur pemakaian APD. Dengan masyarakat memiliki pemahaman dan persepsi yang baik, maka resiko tertular Covid-19 bisa dicegah.

Upaya pemutusan mata rantai penyebaran Covid-19 tidak akan berjalan sebelum masyarakat dibekali dengan pengetahuan dan perilaku yang baik dalam upaya pencegahan penularan COVID-19. Pengetahuan dan perilaku yang nyata dari masyarakat terkait tindakan pencegahan penularan Covid-19 akan senantiasa mampu menurunkan jumlah kasus COVID-19, sehingga masa pandemi COVID-19 dapat berakhir dengan cepat.

KESIMPULAN

1. Hasil penelitian ini menunjukkan bahwa 65,8% responden memiliki pengetahuan yang tinggi tentang pencegahan penularan Covid-19.

2. Hasil penelitian menunjukkan bahwa 68,4% responden memiliki sikap yang baik terkait dengan pencegahan penularan Covid-19
3. Hasil penelitian menunjukkan terdapat hubungan yang bermakna antara pengetahuan dan perilaku responden terhadap pencegahan penularan Covid-19.

Saran

Perlu adanya kesadaran dari masyarakat untuk mentaati protokol kesehatan dimasa pandemi Covid-19 dengan perubahan perilaku yaitu menggunakan masker, *physical distancing* serta perilaku hidup bersih dan sehat, dan diharapkan pada peneliti selanjutnya agar dapat melakukan penelitian ini dengan variabel yang lebih banyak dan jumlah responden yang lebih luas.

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Original Research

The Relationship Between Level of Knowledge and Behaviors of COVID-19 Prevention among Indonesian Population**Weni Widya Shari**

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ABSTRACT

Introduction: Currently, there are no specific drugs to cure COVID-19, so it is an important strategy to be implemented in the community to increase knowledge and preventive behavior in order to prevent transmission. The purpose of this study was to see the relationship between the level of knowledge and preventive behavior against COVID-19 among Indonesian population.

Methods: This study used an analytical method with a cross-sectional design. Samples were taken from the people of Depok City as many as 406 people. The independent variable was knowledge and the dependent variable was preventive behavior. The instruments used were questionnaires on the characteristics of the respondents and knowledge and behavior with online questionnaire via Google Forms. The sampling technique was non-probability sampling with a consecutive sampling method. Data analysis used descriptive analysis test, Chi-square and correlative hypothesis test.

Results: The results showed that respondents have good knowledge (56.9%) and good prevention behavior (75.9%). The largest source of information about COVID-19 respondents was from Television News (84.4%). There was a significant relationship between the level of knowledge and preventive behavior toward COVID-19 ($p=0.000$). Moreover, there is a significant relationship between age ($p=0.000$), gender ($p=0.000$), education level ($p=0.000$) and work status ($p=0.016$) with knowledge.

Conclusion: The findings suggest that the local government should initiate an innovative program of health education focusing on knowledge and preventive behavior toward COVID-19 at a community level. The strategies to combat COVID-19 will require community involvement to control and prevent the disease outbreak.

ARTICLE HISTORY

Received: September 8, 2020

Accepted: Oktober 29, 2021

KEYWORDSCOVID-19; Knowledge;
Prevention Behavior**CONTACT**

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Cite this as: Shari, W., W. (2021). The Relationship Between Level of Knowledge and Behaviors of Covid-19 Prevention among Indonesian Population. *Jurnal Ners*, 16(2). 155-161. doi:<http://dx.doi.org/10.20473/jn.v16i2.21765>

INTRODUCTION

Corona Virus Disease 2019 (COVID-19) is an infectious disease caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), which was first discovered in the city of Wuhan, China at the end of December 2019 (WHO, 2020a). This virus causes disease from human to animals and has now been transmitted from human to human (Kemenkes RI, 2020a; WHO, 2020b). In humans, this virus can infect the respiratory path with the main symptoms of fever, dry cough, shortage of breath (Daryai et al., 2020; Hoque et al., 2020; Taghrir et al., 2020; WHO, 2020b) including other nonspecific symptoms such as headache, dyspnea, fatigue and muscle pain (Mo et al., 2020). There are also those

who report suffering from symptoms, digestion such as vomiting and diarrhea (Huang et al., 2020). This virus spreads very quickly and has spread to almost all countries, including Indonesia, in just a couple of months. At least more than 200 countries around the world have been infected so that this virus becomes a serious threat to public health in the world (Ahmed et al., 2020; Daryai et al., 2020; Hoque et al., 2020).

According to WHO (2020a) there were an additional 185,536 cases as of July 14, 2020, bringing the total cases in the world to 13,150,645 cases while developments in the case in Indonesia has taken a significant increase amounting to 1,591 cases spread over 34 provinces and 461 cities with the total cases of 78,572 patients. Depok is a city in West Java Province, where it is the second province with

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the highest number of cases after DKI Jakarta with an increase of 74 cases, with the total number of positive cases being 5,160. Meanwhile, Depok City is the first city where the COVID-19 cases appeared. As of July 14, 2020, there were also seven additional cases in Depok, with the total number of confirmed positive patients 890 people, so it can be concluded that the transmission is still ongoing up to now (Kemenkes RI, 2020b).

The increasing number of cases has impacted on many fields in various aspects, either health, economy, politics, social, education, religion or even security. Sukmana et al. (2020) stated that COVID-19 has an impact on health, tourism, economy, social and other sectors. The biggest major impact is in the health sector where there are additional positive cases that threaten public health and even cause death. On the other hand, the economy is also very much impacted, where people find it difficult to find jobs, difficulty to meet their daily needs, and even lose their income. Meanwhile, Indonesia's economic figure continues to significantly decline by 5%. The Minister of Finance said that if the prevention strategies were not implemented correctly and properly, Indonesia's economic growth could be depressed to a level of 2.5% or even lower (Hanoatubun, 2020). That is why an effective and correct handling strategy is needed to maintain the stability of an economy that is being threatened.

At the moment, there are no specific drugs and vaccines to fight COVID-19; therefore, the most crucial strategy in the community is preventive behavior to reduce the number of cases. Cvetković et al. (2020) and Ouassou et al. (2020) stated that preventive behavior with a clean and healthy lifestyle is effective for controlling and breaking the chain of transmission of COVID-19, when pharmacological interventions have not been found. Preventive actions that can be taken are washing hands regularly, covering mouth and nose with a mask, avoiding touching the face, covering mouth when coughing and sneezing, isolating cases that are suspected of being positive at home, maintaining a minimum distance of one meter (Cvetković et al., 2020; Daryai et al., 2020; Kemenkes RI, 2020a), implementing a clean and healthy lifestyle, controlling comorbid diseases and managing positive emotions (Kemenkes RI, 2020a).

The basis for change and prevention must start in society because it is a key element in the success of reducing the COVID-19 numbers. This is confirmed by the research of Qiu et al. (2020) on the public in China, that the involvement of the society in prevention factors significantly reduces the rate of virus transmission. The community must take responsibility for the health and safety of their family members by providing them continuous education. A preliminary study conducted by researchers in China resulted in the large number of people who gather at several points for such

unnecessary activities, leaving the house without putting a mask on, wearing a mask but not in an appropriate way and other activities that do not apply health protocols.

The increasing number of positive cases continues every day probably because of inappropriate community preventive behavior. This could be based on a lack of knowledge or biased behavior by disobeying government calls. Health education is needed on knowledge of disease prevention and control behaviors to reduce the incidence of COVID-19 (Ouassou et al., 2020). Based on the above background, the researcher was interested in conducting research on the relationship between the level of knowledge and prevention behavior against COVID-19 in Depok City.

MATERIALS AND METHODS

This research used a correlation analytic method with a cross-sectional design which aims to find the relationship between the level of knowledge and behavior of the people of Depok City towards the prevention of COVID 19.

The data were obtained from questionnaires that were distributed to the researchers' social media accounts via Google Forms which were filled in online because of the COVID-19 pandemic situation. In addition, the researcher also asked for the help of students and colleagues to distribute questionnaires through their social media accounts. In the questionnaire, the instructions for filling and a statement of the respondent's willingness to be used as research respondents were explained.

Respondents who gave consent to willingly participate in the survey would click the 'Continue' button and would then be directed to complete the self-administered questionnaire. The Research and Community Service Unit of STIKes Raflesia (UPPM) approved our study protocol, procedure, information sheet and consent statement (Number: 247 B/STIKES-RAF/VII/2020). The ethical principles used during the research involve using the informed consent principles, anonymity, confidentiality and justice. After that, the researcher distributed the questionnaires.

Research data collection was carried out from July 20 to August 3, 2020, with a total population of all Depok City people aged 15-69 years, as many as 884,540 people. The minimum sample size obtained is 399.8 people based on the Slovin formula calculation (Nursalam, 2017). The consecutive sampling method was used for sampling where respondents are willing to fill out the questionnaires if they meet the inclusion criteria. The inclusion criteria for this study were willing to become respondents, age range between 15-69 years, living in Depok City, and able to read. The number of samples obtained was 406 people.

Knowledge was measured with 14 closed-ended questions and categorized into good (>75%), moderate (56-74%) and insufficient knowledge (<55%) (Arikunto, 2016). Meanwhile, preventive behavior was measured with 13 close-ended questions on a 3-point Likert scale which is categorized into good (75%), moderate (56-74%) and insufficient behavior (55%) (Budiman & Riyanto, 2013). Meanwhile, the confounding variables were age, gender, education, occupation and sources of information.

The survey instrument was an adapted from previous research (Calano et al., 2019; Sari et al., 2020; Zhong et al., 2020) and Guidelines for the Prevention and Control of Coronavirus Disease, Revision IV (Kemenkes RI, 2020a). The questionnaire was tested for its reliability and validity. Cronbach's alpha value for the reliability of the knowledge questionnaire was 0.675. The result added credence where, according to Griethuijsen et al. (2014), the range of Cronbach's alpha within 0.6 to 0.7 is considered adequate and reliable. Data analysis was performed using IBM SPSS statistical software version 20. The researcher performed univariate and bivariate analysis (Chi-square).

RESULTS

The Characteristics of the Respondents

Based on Table 1, it is shown that the majority age of respondents are 12-25 years old (49.3%). Based on gender, the majority of respondents were 68.5% women. In addition, based on the education level, the majority of respondents earned senior high school education (52.7%). Based on employment status, the majority of patients were employed (86.5%). Most of them obtained source of information about COVID-19 from television news (8.4%) and at least 0.7% received information from family doctors. The respondents were allowed to answer more than one regarding the source of information.

The Relationship Between Knowledge Level and Preventive Behaviors

Table 2 explains that the majority of respondents have good knowledge (56.9%). The distribution of respondents based on prevention behavior shows the majority of respondents with good preventive behavior was 75.9%.

The Relationship Between Respondents' Characteristics and Knowledge Level

Table 3 explains that the majority of respondents having a good level of knowledge are aged 12-25 years (31%). In the gender category, the majority who have a good level of knowledge are women (43.8%). The majority of respondents who have a good level of knowledge in the education level category graduated from senior high school or equivalent (28.3%). Majority of respondents based on the employment status category who had a good

Table 1. Respondents' characteristics

Characteristics	n	%
Age		
12-25 years	200	49.3
36-45 years	162	39.9
46-65 years	41	10.1
>65 years	3	7
Gender		
Male	128	31.5
Female	278	68.5
Education		
Elementary school	14	3.4
Junior high school	32	7.9
Senior high school	214	52.7
Higher education	146	36
Employment status		
Employed	351	86.5
Unemployed	55	13.5
Source of information		
Television news	343	84.4
Radio	216	53.2
Newspaper, magazine	156	38.4
Friends, relatives, colleagues	91	22.4
Online social media	45	11.08
Government/WHO official websites	14	3.4
Online news portal	5	1.2
Family doctors	3	0.7

Table 2. Respondents' knowledge and preventive behavior

Variable	n	%
Knowledge Level		
Insufficient	41	10.1
Moderate	134	33
Sufficient	231	56.9
Preventive Behaviors		
Insufficient	29	7.1
Moderate	69	17.0
Sufficient	308	75.9

level of knowledge were respondents who worked (47%). The chi-square test showed that age, gender, level of education, and employment status have a significant relationship with knowledge level.

The Relationship Between Knowledge Level and Preventive Behavior

Table 4 shows that respondents who have good knowledge and have good preventive behavior are 54.9%. The results of statistical tests using the Chi-square test obtained $p = 0.000$, which means that there is a relationship between the level of knowledge and COVID-19 prevention behavior. It can also be seen that the correlation coefficient value is 0.642, which means that the close relationship between the level of knowledge and COVID-19 prevention behavior is strong. A positive value means that if the level of knowledge increases, the better the preventive behavior will be.

DISCUSSION

This study found that there was a significant relationship between age and the level of knowledge about COVID-19. The correlation coefficient value shows that the higher the age, the knowledge about COVID-19 is minimum. This study aligns with

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Table 3. The Relationship between Respondents' Characteristics and Knowledge Level against COVID-19

Characteristics		Knowledge Level						p-value	Correlation coefficient		
		Insufficient		Moderate		Sufficient				Total	
		n	%	n	%	n	%			n	%
Age (years)	12-25	5	1.2	69	17	126	31	200	49.3	0.000	-0.166
	26-45	27	6.7	49	12.1	86	21.2	162	39.9		
	46-68	9	2.2	16	3.9	19	4.7	44	10.8		
Gender	Males	22	5.4	53	13.1	53	13.1	128	31.5	0.000	0.218
	Females	19	14.7	81	20	178	43.8	278	68.5		
Education Level	Elementary and junior high school†	25	6.2	17	4.2	4	1	46	11.3	0.000	0.397
	Senior high school	12	3	86	21.2	115	28.3	213	52.5		
	Higher education	4	1	31	7.6	112	27.6	147	36.2		
Employment status	Unemployed	1	0.2	14	3.4	40	9.9	55	13.5	0.016	0.134
	Employed	40	9.9	120	29.6	191	47	351	86.5		

†) Elementary and junior high school levels were combined into one category because three cells (25%) had an expected value less than 5, which is statistically significant (p=0.000).

†) Elementary and junior high school levels were combined into one category because three cells (25%) had an expected value less than 5, which was exceeding the maximum 20% standard for Chi-square test.

Table 4. The Relationship between Knowledge Level and Preventive Behavior against COVID-19

Knowledge	Preventive Behaviors						Total	p-value	Correlation coefficient
	Insufficient		Moderate		Sufficient				
	n	%	n	%	n	%	n	%	
Insufficient	24	5.9	15	3.7	2	0.5	41	10.1	0.000
Moderate	5	1.2	46	11.3	83	20.4	134	33.0	
Sufficient	0	0	8	2	223	54.9	231	56.9	
Total	29	7.1	69	17	308	75.9	406	100	0.642

research by Scoy et al. (2020) but contrasts with some previous research (Bates et al., 2021; Kirac et al., 2021; Wulandari et al., 2020). According to Lerik and Damayanti (2020), the relationship between age and level of knowledge about the myths and facts of COVID-19 was nowhere to be found. Different results to this research are conveyed in Nurmala et al.'s (2018) study, that people of different ages were able to have the same exposure to information. Wawan and M (2014) presented a different perspective which explains that the more people grew up, the level of maturity and strength of a person will be more in thinking and working.

This study also found female participants with better knowledge and preventive behavior than male ones. These findings were consistent with some of previously conducted studies (Bates et al., 2021; Hosen et al., 2021; Kirac et al., 2021; Wulandari et al., 2020). Their research shows a relationship between gender and *physical distancing* prevention behavior where the gender variable has a significant relationship with *physical distancing* behavior. The women tend to have good *physical distancing* behavior by 3.4 times better than men.

In addition, in this study there is a relationship between work status and the level of knowledge about COVID-19. This is following the theory presented by Nursalam (2011) that work will affect a person's level of knowledge. While the correlation coefficient shows that the relationship is very weak and has a positive correlation, which means that if the respondents work, the level of knowledge is increased. It is the same with the results of research by Scoy et al. (2020) and (Bates et al., 2021) but

contrary to the research conducted by Wulandari et al. (2020).

Last, this study found that the respondents with higher education had higher knowledge. This result is the same compared with previous research (Anhusadar & Islamiyah, 2020; Bates et al., 2021; Hosen et al., 2021; Kirac et al., 2021). This result is also supported by Nursalam (2011), that a person's knowledge is also influenced by educational factors. However, the result of this research is contrary to some previously conducted studies (Lerik & Damayanti, 2020; Wulandari et al., 2020). It has been assumed that information or knowledge is not only obtained in formal education but can be obtained from experience, environment, and non-formal education (Ayurti et al., 2016; Wawan & M., 2014). Any information greatly affects a person's knowledge; even though someone has low education, when he/she is often exposed to information from various sources, the knowledge will be increased. The educational factor is not very influential because various information about COVID-19 at this time is very easy to be accessed (Wawan & M, 2014).

There is a significant relationship between the level of knowledge and COVID-19 prevention behavior in respondents. These results echo the research conducted by Sari et al. (2020) which stated that there is a relationship between public knowledge and obedience in the use of masks as an effort to prevent COVID-19 in Ngronggah. Research by Syadidurrahmah et al. (2020) also showed that the variable of knowledge related to physical distancing has a significant relationship with physical distancing behavior. This research shows that respondents who have good knowledge of

physical distancing have a 1.7 times chance of having good physical distancing behavior than those who have less knowledge.

The correlation coefficient states that, if the level of knowledge increases, the prevention behavior will be better. This is supported by Juwariyah and Priyanto (2018) and Hosen et al. (2021) but contrasts with research by Bates et al. (2021). Knowledge and behavior factors play a role in forming healthy habits (Shaw, 2016). Most people have inadequate health behaviors due to a lack of knowledge of health (Nurjanah & Mubarakah, 2019). Knowledge is a very important domain to create one's actions (Nurmala et al., 2018). Behavior which is based on knowledge, awareness, and positive attitude will last longer rather than behavior that is not based on these three things (Notoatmodjo, 2014). As previously discussed, many factors connect knowledge and behavior. Knowledge is a predisposing factor before a person adopts a new behavior; people must understand first about the meaning or benefit of this behavior for one's self or family (Notoatmodjo, 2014). A person will take preventive action for COVID-19 if he/she knows what the benefits and goals of prevention are for (Hamel et al., 2020). Pratama and Hidayat (2020) found that society is still maintaining social distancing because they recognize the importance of the safety of themselves and others.

The results of the research show that there are still respondents who have good knowledge with adequate preventive behavior (2%). This is possible because of other factors from that person. As everyone knows, the COVID-19 pandemic has had many impacts on the various sectors. Economic sectors have a big impact on society. Now people experience difficulties to find jobs, experience difficulties to fulfill their daily needs, and even lose their income (Hanoatubun, 2020; Pratama & Hidayat, 2020) so even though people have good knowledge, they are constrained by the economy because they do not have money to buy masks, hand sanitizers or vitamins to prevent COVID-19, and thus, preventive behavior cannot be done properly. The other influencing factor is the social relationship factor in the form of disruption of social relations. There is still a belief that social distancing will lead to distant social relationships (Pratama & Hidayat, 2020). The lack of preventive behavior can also arise due to the non-obedience factor, a condition when an individual or group wishes to comply but several factors stop them from being submissive to the advice given by health professionals (Prihantana & Wahyuningsih, 2016).

This study has limitations by conducting research in one location, as in Depok, Indonesia. The study may be conducted in other areas to explore the same context with various variable. In addition, the data collection instruments, particularly the behavioural aspect, were self-administered by the respondents; thus, the researchers could not directly observe the actual behaviour demonstrated by the participants.

CONCLUSION

The results showed that a good level of knowledge will lead to good behavior as well. Variables of age, gender, education level, work status also have a relationship with a person's level of knowledge. Innovative health education is still needed to increase public knowledge in order to increase knowledge and prevention behavior for reducing the risk transmission of COVID-19. This study can provide input on level of knowledge and COVID-19 behavior to the government in making the right policies and strategies regarding COVID-19.

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<https://doi.org/doi:10.7150/ijbs.45221>



Research



Knowledge and preventive practice to COVID-19 among household heads in Enugu metropolis, South-East Nigeria

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Received: 03 Jun 2020 - **Accepted:** 06 Jun 2020 - **Published:** 16 Sep 2020

Keywords: COVID-19, knowledge, preventive practices, non-pharmaceutical interventions, Enugu metropolis

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Cite this article: Elizabeth Uzoamaka Nwonwu et al. Knowledge and preventive practice to COVID-19 among household heads in Enugu metropolis, South-East Nigeria. Pan African Medical Journal. 2020;63(63). 10.11604/pamj.2020.37.63.23986

Available online at: <https://www.panafrican-med-journal.com//content/article/37/63/full>

Knowledge and preventive practice to COVID-19 among household heads in Enugu metropolis, South-East Nigeria

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Abstract

Introduction: the coronavirus disease COVID-19 pandemic has affected the way we live. The use of non-pharmaceutical interventions (NPI) has been reported to be effective in controlling similar respiratory diseases outbreak in the past and is being used as one of the mainstays of control of the pandemic. We therefore assessed the knowledge and practice of preventive measures against COVID-19 among adults in Enugu metropolis during the outbreak in the State.

Methods: we conducted a descriptive cross-sectional study among 320 adults who were recruited through a multistage sampling technique. We used semi-structured interviewer-administered questionnaire to collect information on the knowledge and preventive practices against COVID-19. The data were analyzed using the IBM-SPSS version 25. **Results:** the mean age of the participants was 41.6 ± 12.5 years. There were 168 (52.5%) male, 69.7% had attained tertiary education and 57.8% were self-employed. Overall, 256 (80.0%) of the respondents had good knowledge about COVID-19. Only 133 (41.6%) had good practice of preventive measures among respondents. The more commonly practiced NPIs among the respondents were use of alcohol hand sanitizer (86.6%), physical distancing (85.6%), washing of hands with soap and water (81.6%) and disinfecting frequently touched surfaces (80.9%). The NPIs the respondents practiced poorly were use of face mask (33.8%) and avoidance of crowded areas (47.2%). Having good knowledge (aOR: 3.2; 95% CI: 1.65 - 6.05) and attaining secondary education or less (aOR: 2; 95%CI: 1.0-3.13) were the only predictors of good practice of preventive measures. **Conclusion:** the highly educated segment of the population needs to be targeted with appropriate messages to improve their adoption of the right preventive measures against COVID-19.

Introduction

The coronavirus disease (COVID-19) is caused by a new strain of coronavirus (SARS-CoV-2) that has not been previously identified in humans. It was first reported to World Health Organization on December 31st, 2019 after it was isolated in a cluster of patients in Wuhan China. COVID-19 has the same veiled RNA structure resembling SARS-CoV and MERS-CoV but it is more infectious [1]. The basic idea about COVID-19 infection is that it spreads through the direct mucus contact with the breath/ingestion/salivary droplet of an infected person that can live on hands, objects or surfaces [1,2]. The outbreak was declared a public health emergency of international concern on January 30th, 2020 by WHO and called for collaborative efforts of all countries to prevent the rapid spread of COVID-19 [3]. The ongoing COVID-19 pandemic has spread rapidly and by end of May 2020, the virus has reached over 215 countries, areas and territories resulting in more than 6 million confirmed cases and 370, 000 deaths worldwide including Nigeria.

Nigeria Centre for Disease Control announced the first case of coronavirus disease in Nigeria on February 27, 2020 and since then many confirmed cases have been reported in many States across the country. As at the end of May 2020, over 10, 162 cases have been confirmed, 3007 cases have been discharged and 287 deaths have been recorded in 35 States and the Federal Capital Territory. In Enugu State 18 cases have been confirmed, 12 discharged and no death. To reduce the continued spread of the coronavirus disease and its associated mortality, World Health Organization has recommended series of preventive measures including regular hand washing with water and soap, social distancing, covering nose and mouth while coughing and avoid touching eyes, nose and mouth. Implementing personal hygiene and public health behaviors such as hand washing and social distancing are necessary to curb the spread of

coronavirus, but it will be challenging to practice these in many cities and rural areas in developing countries. Without sustained bans on large gatherings (including specific cultural and faith practices such as mass prayer gatherings, large weddings and funerals) these may create super-spreading events that accelerate transmission [4]. This situation may be compounded by the spread of COVID-19 misinformation including unsupported treatments or promotion of ineffective preventive behaviors [5].

In Nigeria, preventive measures have been adopted to prevent further spread of the virus in the country. The government of Nigeria has also engaged in media campaigns to disseminate information on preventive measures to the general public. However, the level of knowledge and preventive practices against COVID-19 infection among adults in Enugu are yet to be evaluated. Therefore, this study aimed to determine the knowledge and preventive practices against coronavirus infection among adults in Enugu metropolis, Nigeria.

Methods

Study setting: Enugu is the capital of Enugu State which is one of the five States in the south-east geo-political zone in Nigeria. The metropolis is made up of three local government areas namely Enugu North, Enugu South and Enugu East local government areas. Its population according to the 2006 national population census was 722,664 people with a growth rate of 3.05% [6]. Its inhabitants are mainly of Igbo ethnic nationality and are predominantly Christians. The occupation of the people includes civil service, trading, artisanship and farming.

Study design and population: this was a descriptive cross-sectional study on heads of households in Enugu metropolis, Enugu state, Nigeria. A household is a group of people who live together and feed from the same pot. The head of household is the individual responsible for

leadership and financial decisions in the household. We estimated the minimum sample size using the formula for single proportions.

$$n = \frac{Z^2 P(1-P)}{d^2}$$

A sample size of 320 respondents was estimated based on a type 1 error (α) of 0.05, tolerable margin of error of 0.05 and a proportion of 83.9%, representing the proportion of respondents that had good knowledge of COVID-19 in a study among Nigerians [7].

Sampling technique and study instrument: a multistage sampling technique was used to recruit respondents for the study. In the first stage, a simple random sampling technique of balloting was used to select one out of the three local government areas in the metropolis. In the second stage, a simple random sampling technique of balloting was used to select two out of four districts in the selected local government area. In the third stage, a simple random sampling technique of balloting was used to select two communities each from the list of communities in the two districts that are located in the urban section of the selected local government area. In the fourth stage, a systematic random sampling technique was used to select houses in the selected communities. House numbering was done in each of the selected communities and that served as the sampling frame. A total of 80 respondents were allocated to each of the four communities. The sampling interval for each of the selected communities was determined by dividing the sampling frame by the sample size of 80. The sequence that the houses were selected was based on the numbers allocated to the houses. The index house was selected using a simple random sampling technique of balloting. In the fifth stage, a list of households in each of the selected houses where there were more than one household was made and one household was selected using a simple random sampling technique of balloting. The head of each of the selected household was included in the study. A

pretested semi-structured questionnaire developed by the researchers was used for the study. The questionnaire had three sections. The first section had information on socio-demographic characteristics, second section assessed the knowledge on COVID-19 and the third section assessed the practice of the preventive measures on COVID-19. The questionnaire was administered to the respondents by trained research assistants.

Outcome measure: outcome measure included Good knowledge and Good preventive practices against COVID-19. Knowledge of COVID-19 was assessed using 22 variables. A correct response to each of the variables was awarded a score of one while an incorrect answer was scored zero. Respondents who scored $\geq 70\%$ of the 22 variables were regarded as having good knowledge of COVID-19. Preventive practices against COVID-19 was assessed using ten variables. A correct response to each of the variables was given a score of one while an incorrect answer was scored zero. Respondents who scored $\geq 70\%$ of the ten variables were designated as having good preventive practices against COVID-19. The socio-economic status index was developed using Principal Component Analysis, (PCA) in STATA statistical software version 12. The input to the PCA included information on estimated household monthly income and ownership of ten household items that included radio, television, cable television, generator, gas cooker, refrigerator, electric iron, car, air-conditioner and washing machine. For calculation of distribution cut points, quartiles, (Q) were used. Each respondent was assigned the wealth index score of the household. The quartiles were Q1 = poorest, Q2= the very poor, Q3= the poor and Q4= least poor. The first two quartiles, Q1 and Q2 were grouped as low socio-economic class while Q3 and Q4 were categorized as high socio-economic class.

Data management: data entry and analysis were done using IBM Statistical Package for Social Sciences statistical software version 25. Frequency tables and cross-tabulations were generated. Chi

square test was used to assess the relationship between the good knowledge and sociodemographic characteristics. Multivariate analysis using binary logistic regression was used to determine predictors of good knowledge and good preventive practices against COVID-19. Variables that had a p value of <0.2 on bivariate analysis were entered into the logistic regression model to determine the predictors of good knowledge and good preventive practices against COVID-19. Result of regression analysis was reported using adjusted odds ratio and 95% confidence interval at 5% level of significance.

Ethical considerations: ethical approval for the study was obtained from the Research and Ethics Committee of Enugu State Ministry of Health, Enugu state, Nigeria. We obtained a written informed consent from the respondents before questionnaire administration. The participants were assured by the researchers that participation in the study was voluntary and that information obtained for the study will be treated anonymously and confidentially.

Results

The mean age of the respondents was 41.6 ± 12.5 years. There were 168 (52.5%) male, 74.7% of the respondents were married, 20.5% (65) had more than four children, 94.1% were Christians, 69.7% had attained tertiary education and 57.8% were self-employed (Table 1). All the respondents were aware of COVID-19 pandemic and the major source of their information on COVID-19 were television 94.7%, friends 81.9%, social media 80.3%, radio 72.2% and family members 67.2%. The least common sources of information for them were market 19.4% and town criers (4.7%). The most common symptoms of COVID-19 the respondents were aware of were fever (85.0%), sneezing (79.1%), dry cough (76.9%) and difficulty in breathing (63.7%). Overall, 80.0% (256) of the respondents had good knowledge about COVID-19, none of the socio-demographic characteristics examined was found to be associated with having good knowledge of the COVID-19 (Table 2).

The use of preventive measures (non-pharmaceutical interventions NPI) among respondents was observed to be generally poor among the respondents. Only 41.6% (133) had good practice of preventive measures among respondents (Table 3). The most common NPI practiced among the respondents were use of alcohol hand sanitizer (86.6%), physical distancing (85.6%), washing of hands with soap and water (81.6%) and disinfecting frequently touched surfaces (80.9%). The NPIs the respondents practiced poorly were use of face mask (33.8%) and avoidance of crowded areas (47.2%, Table 3). Education, employment status and having good knowledge of COVID-19 were found to be associated with good practice of preventive measures against COVID-19 among the participants (Table 4), however when modelled to remove the possible effect of confounder, having good knowledge (aOR: 3.2; 95% CI: 1.65 - 6.05) and attaining secondary education or less (aOR: 2; 95%CI: 1.10-3.13) were the only predictors of good practice of preventive measures. Those who had good knowledge of the disease were 3.2 times higher odds of having good practice of the preventive measures compared to those with poor knowledge of the disease. Those who have secondary education or less had twice higher odds of practicing good preventive measures compared to those that had attained tertiary education (Table 5).

Discussion

We found that the heads of households in Enugu metropolis were all aware of the COVID-19 disease. This is good and signifies that the awareness creation effort of the government and the various public health agencies had yielded some result. Awareness and good perception have been reported as a good predictor of proper preventive measures to infectious disease [8]. The main sources of the information about the diseases were found to be the news media and social media. The finding was similar to an earlier study which reported that high proportion of the

respondents sourced their information from social media [9,10]. The use of traditional means of information dissemination was not popular among this population. This could be due to the high proportion of well-educated people among the respondents and the metropolitan nature of the study population.

We observed that a high proportion of the respondents had good knowledge about the COVID-19. However, this knowledge was not found to be associated with any of the sociodemographic characteristics assessed. Age and economic status have however been reported to be a predictor of good knowledge among some health workers [10,11]. This showed a good penetration of risk communication messaging across the different layers of the community. The level of knowledge reported in this study was higher than those earlier reported among health workers in China [9]. We observed that the practice of preventive measures against COVID-19 was generally poor among the respondents. This is despite good knowledge of the disease. It is however important to note that the practices of the preventive measures varied from one measure to another. The use of the preventive measures which are also generally called non pharmaceutical interventions has been noted to help in limiting the transmission of the virus from one person to another [12]. Its effectiveness depends on the right use of a cocktail of the measures. One cannot be fully protected if one practices the use of face mask alone and do not wash hands regularly. Hence despite the good practice observed among some popular measures, the use of the combination of measures, which ensures better preventive effectiveness, was rather poor among the populace. This could be due to incomplete risk communication or other factors such as cost of procuring the materials or its availability. It could also be due to personal preferences or level of risk perception to being infected.

Education and good knowledge of the COVID-19 were the only factors that predicted the good practice of preventive measures against the

disease. Having lower educational attainment was associated with greater odds of practicing the preventive measures against COVID-19. This could be as a result of the more acceptance among this segment of the population. The more educated segment of the population were less accepting of the preventive measures probably because they feel less at risk of contracting the diseases. They are less likely to live in crowded areas, more likely to have their own personal means of transportation and feel less exposed to the risk of the exposure to the virus. Having good knowledge about the disease is known to be associated with good preventive practices. Those that know about the diseases, its effects and the mode of transmission are more likely to better prevent themselves from being infected. Efforts should be targeted to improving the level of knowledge in the community about COVID-19 as this will have multiplier effects on the preventive practices against the disease.

Conclusion

The national public health institute, the Nigeria Center for Disease Control and other national and subnational public health agencies need to improve on the risk communication messaging on the use of the NPIs to help improve the acceptance and practice of these NPIs. The highly educated segment of the population needs to be target with appropriate messages to improve their adoption of the right preventive measures against COVID-19. Effort at educating the whole population about the COVID-19 disease should be encouraged as this has a multiplier effect on also improving their use of preventive practices.

What is known about this topic

- *Effective use of the non-pharmaceutical interventions has been known to limit the spread of respiratory diseases spread by droplet;*
- *Good knowledge of the disease is associated with practice of preventive measures to protect against infection.*

What this study adds

- *The knowledge of COVID-19 is high among the adults in Enugu metropolis;*
- *However, the practice of preventive measures is low, and this might have implications for the control of the spread of the disease in the metropolis.*

Competing interests

The authors declare no competing interests.

Authors' contributions

Elizabeth Uzoamaka Nwonwu and Edmund Ndudi Ossai conceptualized the study. Elizabeth Uzoamaka Nwonwu acquired the data. Edmund Ndudi Ossai, Chukwuma David Umeokonkwo contributed to data analysis and interpretation of the result. Elizabeth Uzoamaka Nwonwu, Edmund Ndudi Ossai, Chukwuma David Umeokonkwo and Ituma Bernard Ituma wrote the initial draft. All others reviewed the initial draft, read and approved the final draft for submission. All authors read and approved the final version of the manuscript.

Tables

Table 1: socio-demographic characteristics of respondents

Table 2: factors affecting good knowledge of COVID-19 among the respondents

Table 3: practices of preventive measures against COVID-19 among the respondents

Table 4: factors affecting good preventive practices against COVID-19

Table 5: predictors of good preventive practices against COVID-19

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Table 1: socio-demographic characteristics of respondents

Variable	Frequency (n=320)	Percent (%)
Age (years)		
Mean SD	41.6±12.5	
<35 years	111	34.7
35-44 years	100	31.3
≥45 years	109	34.1
Gender		
Male	168	52.5
Female	152	47.5
Number of children		
None	72	22.5
1-4 children	183	57.2
≥5 children	65	20.3
Marital status		
Never married	69	21.6
Married	239	74.7
Divorced	7	2.2
Separated	5	1.6
Religion		
Christianity	301	94.1
Islam	17	5.3
Traditional religion	2	0.6
Education		
No formal	13	4.1
Primary	9	2.8
Secondary	75	23.4
Tertiary	223	69.7
Employment status		
Unemployed	11	3.4
Self-employed	185	57.8
Salaried employment	124	38.8
Socio-economic class		
Low socio-economic class	164	51.2
High socio-economic class	156	48.8



Table 2: factors affecting good knowledge of COVID-19 among the respondents

Variable	Good Knowledge N (%)	Poor knowledge N (%)	P value
Age (years)			
<35	84 (75.7)	27 (24.3)	0.270
35-44	80 (80.0)	20 (20.0)	
≥45	92 (84.4)	17 (15.6)	
Gender			
Male	136 (81.0)	32 (19.0)	0.654
Female	120 (78.9)	32 (21.1)	
Number of children			
None	52 (72.2)	20 (27.8)	0.170
1-4 children	150 (82.0)	33 (18.0)	
≥5 children	54 (83.1)	11 (16.9)	
Marital status			
Married	196 (82.0)	43 (18.0)	0.123
Others**	60 (74.1)	21 (25.9)	
Education			
Tertiary	179 (80.3)	44 (19.7)	0.855
Secondary and less	77 (79.4)	20 (20.6)	
Employment status			
Unemployed	9 (81.8)	2 (18.2)	0.852
Self-employed	146 (78.9)	39 (21.1)	
Salaried employment	101 (81.5)	23 (18.5)	
Socio-economic class			
Low socio-economic class	128 (78.0)	36 (22.0)	0.371
High socio-economic class	128 (82.1)	28 (17.9)	

**Never married, separated, divorced



Table 3: practices of preventive measures against COVID-19 among the respondents

Variable	Frequency	Percent (%)
In the last two weeks		
Have gone to a crowded place		
Yes	151	47.2
No	169	52.8
Have travelled out of state for a social function		
Yes	101	31.6
No	219	68.4
Have worn a face mask when leaving home		
Yes	108	33.8
No	212	66.2
Wash hands with soap and water regularly		
Yes	261	81.6
No	59	18.4
Use personal alcohol-based sanitizer		
Yes	277	86.6
No	43	13.4
Shake hands with other people regularly		
Yes	182	56.9
No	138	43.1
Touch face/nose/eyes with hands regularly		
Yes	246	76.9
No	74	23.1
Clean/disinfect frequently touched surfaces		
Yes	259	80.9
No	61	19.1
Stay indoors from time to time to prevent infection		
Yes	252	78.8
No	68	21.3
Maintain at least one meter from others in public places		
Yes	274	85.6
No	46	14.4
Preventive practices against COVID-19		
Good	133	41.6
Poor	187	58.4



Table 4: factors affecting good preventive practices against COVID-19

Variable	Good preventive practice N (%)	Poor preventive practice N (%)	p value*
Age (year)			
<35	44 (39.6)	67 (60.4)	0.796
35-44	41 (41.0)	59 (59.0)	
≥45	48 (44.0)	61 (56.0)	
Gender			
Male	65 (38.7)	103 (61.3)	0.273
Female	68 (44.7)	84 (55.3)	
Number of children			
None	25 (34.7)	47 (65.3)	0.380
1-4 children	81 (44.3)	102 (55.7)	
≥5 children	27 (41.5)	38 (58.5)	
Marital status			
Married	103 (43.1)	136 (56.9)	0.339
Others*	30 (37.0)	51 (63.0)	
Education			
Tertiary	86 (38.6)	137 (61.4)	0.099
Secondary and less	47 (48.5)	50 (51.5)	
Employment status			
Unemployed	7 (63.6)	4 (36.4)	0.141
Self-employed	70 (37.8)	115 (62.2)	
Salaried employment	56 (45.2)	68 (54.8)	
Socio-economic class			
Low	69 (42.1)	95 (57.9)	0.849
High	64 (41.0)	92 (59.0)	
Knowledge of COVID-19			
Good	119 (46.5)	137 (53.5)	<0.001
Poor	14 (21.9)	50 (78.1)	

*P valued based on Chi Square statistics **Never married, separated, divorced



Table 5: predictors of good preventive practices against COVID-19

Variable	AOR (95% CI)	P value
Education		
Secondary and less	2 (1.10-3.13)	0.021
Tertiary	1	
Employment status		
Unemployed	2.2 (0.57-8.09)	0.257
Self-employed	0.6 (0.37-1.02)	0.060
Salaried employment	1	
Knowledge of COVID-19		
Good	3.2 (1.65-6.05)	0.001
Poor	1	



Relationship Between Knowledge, Preventive Practices and Fear from COVID-19 among Middle Aged and Older Adults: During the Novel Coronavirus Outbreak

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To cite this article:

Sally Mohammed Elsayed Ibrahim, Marwa Abdelhamid Mohammed Mahmoud. Relationship Between Knowledge, Preventive Practices and Fear from COVID-19 among Middle Aged and Older Adults: During the Novel Coronavirus Outbreak. *American Journal of Nursing Science*. Vol. 9, No. 5, 2020, pp. 333-346. doi: 10.11648/j.ajns.20200905.15

Received: August 25, 2020; Accepted: September 10, 2020; Published: September 21, 2020

Abstract: *Background:* New virus infections outbreaks among people are always a public health problem. For the COVID-19, it may have physical, psychological, and social consequences that affect on individuals. One of these psychological consequences is fear. Older adults, especially with chronic health conditions are extremely vulnerable to COVID-19. So, individuals must have good COVID-19 knowledge and preventive practices to combat this fear and prevent the spread of infection. *Aim:* Determine the relationship between knowledge, preventive practices, and fear from COVID-19 among middle aged and older adults: during the novel coronavirus outbreak. *Design:* A descriptive cross-sectional correlational research design was used in this study. *Setting:* The study was carried out at Temai Elamdud health insurance outpatient clinics that affiliated to the Egyptian Ministry of Health. *Subjects:* A convenience sample of 185 patients attending the previous study setting. *Tools:* Four tools were used in this study; demographic and clinical data structured interview schedule, COVID-19 knowledge structured interview schedule, COVID-19 preventive practices structured interview schedule and fear from COVID-19 scale. *Results:* It was noticed that more than two fifth of middle aged adults and more than one third of older adults had satisfactory COVID-19 preventive practices. Furthermore, more than one third of middle aged adults and one third of older adults had good COVID-19 knowledge with statistically significant difference was found between two groups. Also, Significant relation was found between both COVID-19 knowledge and preventive practices and fear from COVID-19 among the study subjects ($P=0.000$). In the same direction, there was statistically significant difference between middle aged adults and older adults regarding COVID-19 knowledge and preventive practices and higher level of COVID-19 fear ($P=0.000$). *Conclusion:* Older adults had a significant lower score of COVID-19 knowledge and preventive practices and higher level of COVID-19 fear than middle aged adults as strong negative correlation between fear from COVID-19 and either COVID-19 knowledge & preventive practices was found. *Recommendations:* Educational programs should be developed and implemented by nurses in different care settings to increase their awareness about COVID-19.

Keywords: Knowledge, Preventive Practices, Fear, COVID-19, Middle Aged, Older Adults

1. Introduction

Coronaviruses are a large family of enveloped RNA viruses that mostly infect birds and mammals, with humans being particularly vulnerable to infection and transmission of the virus [51]. The previous outbreaks of coronaviruses such as Severe Acute Respiratory Syndrome-Coronavirus (SARS-

CoV) and Middle East Respiratory Syndrome-Coronavirus (MERS-CoV) show similarities to the novel coronavirus [33]. The novel coronavirus disease 2019 (COVID-19) is an emerging respiratory disease that first reported in Wuhan, in the Hubei province of China in the late December 2019 when patients stated that they having viral pneumonia resulted from an unknown microbial pathogen. A new coronavirus

was subsequently identified as the pathogen and was named temporarily the 2019 new coronavirus [36, 37].

The new COVID-19 epidemic has spread to most countries in the world. The number of new COVID-19 patients increased dramatically due to the traveling of hundreds of millions of people. The severity of COVID-19 had been underestimated until the national health commission classified it as a B type infectious disease and took actions to fight against this disease on 20 January 2020 [34]. Additionally, the World Health Organization (WHO) declared the COVID-19 outbreak a public health emergency of international concern on 30 January 2020 [56]. Since 31 December 2019 and as of 26 June 2020, 9 581 803 cases of COVID-19 (following the applied case definitions and testing strategies in the affected countries) have been reported worldwide, including 489 182 deaths. In Egypt, 61 130 cases was reported till 26 June 2020 and a rapid tendency towards increase [57]. Although new COVID-19 seems to be very contagious and has quickly spread globally, most infected people will develop mild to moderate illness and recover without hospitalization. Fever and cough are suggesting the differences in viral tropism compared to, SARS-CoV, MERS-CoV, and influenza [9, 54, 14].

Clinical manifestations of the new COVID-19 included fever, cough, fatigue, muscle or body aches, difficulty breathing, sore throat, the new loss of taste or smell, and headache. Additionally, some patients manifested gastrointestinal symptoms, with diarrhea, nausea, and vomiting [17, 58]. Older adults due to frailty and weak immunity and people who have severe underlying medical conditions like hypertension, chronic obstructive pulmonary disease, diabetes, and cardiovascular disease, seem to be at higher risk for developing more serious complications leading to death [22, 26]. Atypical presentations of COVID-19 in older adults may include delirium, abdominal pain, and low-grade fever [41].

Confirmation of cases of new COVID-19 is based on real time reverse transcription polymerase chain reaction (rRT-PCR). Respiratory material should be collected from the upper respiratory specimens (nasopharyngeal and oropharyngeal swab or wash in ambulatory patients) and/or from the lower respiratory specimens (sputum if produced and/or endotracheal aspirate or bronchoalveolar lavage in patients with more severe respiratory disease [59] Regarding older adults, multiple lobe involvement was more common than in middle-aged [46].

Nowadays, there is no specific drug therapy against new COVID-19 for suspected or confirmed cases. Therefore, current treatments chiefly concentrated on symptomatic and respiratory support according to the diagnosis and treatment of pneumonia resulted from the new COVID-19 [38]. Almost all patients accepted oxygen therapy, and extracorporeal membrane oxygenation (ECMO) to patients with refractory hypoxemia is recommended by the World Health Organization [60]. Rescue treatment with convalescent plasma and immunoglobulin G is delivered to some critical cases [18]. It was noticed that older patients with COVID-19

have been reported to exhibit relatively higher mortality and severity of illness than younger patients [52] as the mortality rate of COVID-19 is 15% for older people 80 years or over compared to 0.2% for those under 20 years worldwide. Therefore, Age is considered a critical major risk for COVID-19 mortality as aging itself has been strongly associated with worse outcomes due to the pathophysiological changes that characterize the respiratory system and has created serious psychological disturbances, insecurity, and fear among older adults [28].

To date, there is no clinically approved vaccination against the new COVID-19. Therefore, the best prevention is to avoid being exposed to the virus through infection control measures [35]. The knowledge of the public is expected to largely influence the degree of adherence to personal protective measures [47]. The emergence of the COVID-19 and its pandemic nature has exacerbated fears worldwide. One characteristic nature of infectious disease compared with other conditions is fear [2]. Fear is known as an unpleasant emotional state that is induced by the perception of frightening stimuli [50]. Extraordinary situations such as disease outbreaks can trigger fear among many individuals [6, 25]. Currently, there is not enough evidence that knowledge and preventive practices toward the COVID-19 influenced by fear from COVID-19 [62].

1.1. Aims of the Study

This study was aimed to determine the relationship between knowledge, preventive practices, and fear from COVID-19 among middle aged and older adults: during the novel coronavirus outbreak.

1.2. Research Questions

Q1: What is COVID-19 knowledge among middle aged and older adults: during the novel coronavirus outbreak?

Q2: What is COVID-19 preventive practices among middle aged and older adults: during the novel coronavirus outbreak?

Q3: What is the relationship between knowledge, preventive practices, and fear from COVID-19 among middle aged and older adults: during the novel coronavirus outbreak?

2. Subject and Method

2.1. Study Design

A descriptive cross-sectional correlational research design was used in this study.

2.2. Setting

The study was carried out at Temai Elamdid health insurance outpatient clinics that are affiliated to the Egyptian Ministry of Health.

Temai Elamdid health insurance outpatient clinics consisted of two floors. The ground consists of The

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pharmacy, The pharmacy store, Analysis Lab, an archive room that contains patients files, and finally two outpatient clinics; one general internal medicine clinic and the other general practitioner clinic for orthopedic, dermatology, and ophthalmology. The first floor consisted of director office, employee room, statistics office, medical supplies store, Paper store, bathroom, and two outpatient clinics (dentist clinic and pediatric clinic). The outpatient clinics receive patients (nearly 20 patients per day in each outpatient clinic due to novel coronavirus outbreak), six days per week from Saturday to Thursday from 8 Am to 2 Pm.

2.3. Subjects

A convenience sample of 185 patients. The sample size was calculated based on the percentage of inadequate knowledge about novel coronavirus among selected rural community 19% [45] and percentage of poor knowledge among general population 22.6% [21]. for calculating sample size we used the website "www.Dssresearch.com" using the previous percentage, two-tailed significance test with a power 80% and alpha error 5%. The calculated sample size was 164. We add 10% for any error in data calculation, So we were conducted our study on 185 patients attending the previous study setting and fulfilling the following (Inclusion criteria):

- 1) Able to communicate.
- 2) Willing and give their consent for participation in the study.
- 3) Available at the time of data collection.
- 4) Both sex patients.
- 5) Aged from 20 years old and older, and then stratified into two groups according to their age; Adults group (aged from 20 to less than 60 years old), and older adults group (aged from 60 years and more).

2.4. Tools of Data Collection

So as to collect the necessary information for the study, four tools were used:

2.4.1. Tool I: Demographic and Medical History Structured Interview Schedule

This tool was developed by the researchers after literature review [8, 43, 65] and consists of; demographic data of the study participants as age, sex, income, marital status, residence, occupation and education; as well as, medical history of study participants.

2.4.2. Tool II: COVID-19 Knowledge Structured Interview Schedule

This tool was developed by the researchers after the literature review [64, 24, 61, 15] to assess baseline knowledge of study participants about COVID-19. It consisted of thirty-two (32) multiple-choice questions; regarding the nature of the disease (Q1-Q2), mode of transmission (Q3-Q15), the incubation period (Q16), manifestations (Q17-Q19), diagnosis (Q20), treatment (Q21-Q22), risk factors (Q23-Q24), complications (Q25),

preventive measures (Q26-Q32). Each question was responded as Yes, No and I don't know.

Scoring system for COVID-19 knowledge structured interview schedule:

The correct answer for each question gets a score of one grade, while incorrect answers and don't know get a score of zero. The total knowledge score was computed out of thirty-two (32) grades. It was converted into percent as the following [53]:

- 1) Good knowledge = $\geq 75\%$.
- 2) Average knowledge = 50 - 75%.
- 3) Poor knowledge = $< 50\%$.

2.4.3. Tool III: COVID-19 Preventive Practices Structured Interview Schedule

This tool was developed by the researchers after the literature review [19, 3, 56] to assess COVID-19 preventive practices among study participants. It was consists of sixteen questions regarding; hand hygiene (Q1-Q2), avoid touching nose, mouth, and eye (Q3), wearing mask (Q4), disinfectant of surfaces (Q5), respiratory hygiene/cough etiquette (Q6-Q7), social distancing (Q8-Q15) and self-isolation (Q16).

Scoring system for COVID-19 Preventive Practices structured interview schedule:

Give two grades for the answer "yes", one grade for the answer "sometimes", while zero for the answer "No" [39]. The total COVID-19 preventive practices score was computed out of thirty-two (32) grades. It was converted into percent.

The total COVID-19 Preventive practices score [53]:

- 1) Satisfactory practices = $\geq 75\%$.
- 2) Unsatisfactory practices = $< 75\%$.

2.4.4. Tool IV: Fear from COVID-19 Scale

This scale was designed by Ahorsu et al.,(2020) [2]. It is originally designed to assess one's fear of COVID-19. It was in the English version and translated into the Arabic language and validated by the researchers. It consisted of seven questions. The subjects indicate their agreement level with the statements by a five-item Likert type scale. Answers included "strongly disagree," "disagree," "neither agree nor disagree," "agree," and "strongly agree". The maximum score possible for each question is five, and minimum the is one. A total score is calculated by adding up the score of each item (from seven to thirty-five). The higher the score, the greater COVID-19 fear.

2.5. Method of Data Collection

2.5.1. Phase I: Preparatory Phase

- 1) An Official approval which includes the title and aim of the study was obtained from the Faculty of Nursing, Mansoura University. Additionally, official approval for conducting the study was obtained from the responsible administrative personnel of Temai Elamidid health insurance outpatient clinics to attain the approval for interviewing the patients.
- 2) After a thorough review of the literature, Tool I (Demographic and medical history structured interview

schedule), Tool II (COVID-19 knowledge structured interview schedule), Tool III (COVID-19 Preventive Practices structured interview schedule) were developed by the researchers.

- 3) Tool IV (Fear from COVID-19 scale) was translated by the researchers into the Arabic language and tested using the test-retest method.
- 4) The reliability of tool II & tool III and Tool IV was applied to 20 patients selected from the previous mentioned setting and reapplied two weeks later. The reliability was assured by Cronbach's alpha ($r = 0.89$ for tool II and $r = 0.88$ for tool III and $r = 0.87$ for tool IV).
- 5) The study tools were tested for its validity by seven experts in the fields of community health medicine and medical surgical nursing; as well as gerontological nursing, as a jury to test feasibility and validity, and the necessary changes were done consequently.
- 6) A pilot study was conducted on 20 patients (10% of sample size) in the previously mentioned setting before beginning the data collection to test the tools feasibility and to make the necessary changes. Patients who participated in the pilot study were excluded from the study sample.

2.5.2. Phase II: Operational Phase

- 1) Based on the schedule of the Temai Elamdid health insurance outpatient clinics, the researchers visited the outpatient clinics six days per week (from Saturday to Thursday) from 8 Am to 2 Pm.
- 2) All patients who attended these clinics in these days and fulfill the study criteria were included in the study.
- 3) The researchers started by introducing herself to patients and giving him/her a brief idea about the study purpose.
- 4) Each patient who agreed to participate in the study and fulfilling the inclusion criteria was interviewed individually to collect the necessary data using all the study tools. Time taken to fill the study tools ranged from 20 to 30 minutes for each patient.
- 5) If the study subjects can't read the study questionnaire, the researchers read each question to study subjects and marked exactly the answer they gave.
- 6) The researchers used to meet with each study subject in the waiting room in outpatient clinics or inside outpatient clinics. A face to face interview was directed with each patient who achieved the study criteria. Then the required data were collected using tools of the study.
- 7) The researchers follow preventive measures while dealing with patients as wearing mask, gloves, maintain social distance, and prevent being in a crowded area with patients by interview patient individually according to the rules of outpatient clinics.
- 8) The data collection covered a period from the end of April, 2020 till the end of May, 2020.

2.6. Ethical Consideration

- 1) Informed consent from the study subjects was obtained

after clarification of the study and assured that data collection was used only for the purpose of the study.

- 2) The confidentiality of the collected data and the privacy of the participants were maintained.
- 3) Study participants were informed about their rights to draw from the study at any time without any punishment.

2.7. Statistical Analysis

After data were collected it was revised, coded, and fed to Statistical Package for the Social Sciences (SPSS) version 22. The given graphs were constructed using Microsoft excel software and SPSS. The normality of data was first tested with one-sample Kolmogorov-Smirnov test. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations, median, and Min-Max for quantitative variables. Quantitative continuous data were compared using the non-parametric Mann-Whitney U-test to compare quantitative variables between two groups and Kruskal-Wallis test for more than two groups and as the normal distribution of the data could not be assumed. Pearson correlation coefficient (r) used for the correlation between continuous data. Statistical significance was considered at p -value < 0.05 .

3. Results

Table 1 shows the distribution of the studied subjects according to their demographic characteristics and their medical history, this study included 185 participants; half (50.8%) of those were middle aged and about half (49.2%) were older adults with a mean age 51.23 ± 6.52 and 67.16 ± 5.37 respectively. Most of the two groups (60.6% of middle aged and 61.5% of older adults) were male. Concerning the educational level the results revealed that diploma education was prevailing most of the two groups (48.9% in middle aged and 37.4% in older adults group). Also, about half of both middle aged group and the older adults group were residing in urban (52.1% & 50.5% respectively). Regarding marital status, It was observed that about three quarter of middle aged (84%) and about two third of older adults (68.1%) were married. In relation to the economic status, the majority of both middle aged and older adults groups (80.9% and 86.8% respectively) reported that their income was not enough. Regarding medical history, it was found that diabetes mellitus was the most prevailing disease among middle aged and older adults groups (67% & 68.1% respectively). With regard to demographic characteristics and medical history, there was no statistically significant difference between the two groups ($p > 0.05$) except occupation ($p = 0.000$).

Figure 1 illustrates the source of COVID-19 knowledge among middle aged and older adults, this figure shows that social media was considered the most common source of COVID-19 knowledge among both groups (60.6% in middle aged and 40.7% in older adults), while the lowest source of

knowledge among older adults was internet search (3.3%), and among middle aged was health care workers (8.8%).

Table 2 displays the distribution of studied subjects according to their knowledge & preventive practices and fear from COVID-19. It was noticed that there was a statistically significant difference was found between middle aged group and older adults group regarding to COVID-19 knowledge as about one third of middle aged (37.2%) and 33% of older adults had good COVID-19 knowledge ($p=0.000$). Also, it was observed that there was a statistically significant difference between middle aged and older adults groups. Concerning COVID-19 preventive practices, about two fifth (42.6%) of middle aged group in comparison to about one third of older adults had satisfactory COVID-19 preventive practices ($p=0.000$). Concerning fear from COVID-19, there was a statistically significant difference between middle aged and older adults groups as older adults had a higher level of fear than middle aged ($p=0.000$).

Table 3 shows the relation between demographic characteristics and both COVID-19 knowledge & preventive practices among the studied subjects. It appears from the table that males obtain higher mean scores of COVID-19 knowledge and preventive practices than females in both middle aged and older adults groups ($P=0.000$). Furthermore, there was a statistically significant relation between residence and both COVID-19 knowledge and preventive practices among the studied subjects as study subjects who were residing in urban areas had both higher scores of COVID-19 knowledge and preventive practices than others in both middle aged and older adults groups ($p=0.000$). Also, the table shows that there was a statistically significant relation between COVID-19 knowledge and income in both middle aged and older adults as the studied subjects with enough income had both higher scores of COVID-19 knowledge and preventive practices than those with not enough income ($P=0.000$). Moreover, the level of education affects significantly on COVID-19 knowledge in both groups as study subjects with university education had both higher scores of COVID-19 knowledge and preventive practices than others ($P=0.000$).

Table 4 shows the relation between demographic characteristics and Fear from COVID-19 among the studied subjects. It appears from the table that sex affects significantly on the level of fear as females had a higher level of fear than males in both middle aged and older adults groups ($P=0.000$). Concerning residence, there was a statistically significant relation between the residence of the studied subjects and level of fear as study subjects who were living in rural areas had a higher level of COVID-19 fear

than those who were living in urban areas ($P=0.000$). Also, the table shows that there was a statistically significant relation between income and level of fear as the studied subjects with enough income had a higher level of fear than those with not enough income ($P=0.000$). Otherwise, results revealed that education level affect significantly on the level of COVID-19 fear as study subjects with university education had a lower level of fear than others ($P=0.000$).

Table 5 shows the relation between COVID-19 knowledge & preventive practices and fear from COVID-19 among the studied subjects. It was noticed from the table that there was statistically significant results between both COVID-19 knowledge and preventive practices and fear from COVID-19 among the studied subjects as study subjects with good COVID-19 knowledge scores had a lower level of COVID-19 fear than those with poor scores of COVID-19 knowledge ($P=0.000$). Moreover, study subjects with unsatisfactory COVID-19 preventive practices had a higher level of fear than those with satisfactory preventive practices scores in both middle aged and older adults groups ($P=0.000$).

Table 6 shows the relation between COVID-19 Knowledge and preventive practices among the studied subjects; it appears from the table that there were statistically significant results was found between study subjects COVID-19 knowledge and their preventive practices as study subjects with satisfactory COVID-19 preventive practices had higher knowledge about COVID-19 than those with unsatisfactory COVID-19 preventive practices in both middle aged and older adults groups ($P=0.000$).

Figures 2&3 represent the correlation between total COVID-19 knowledge and preventive practices. These figures displayed that there was a statistically significant strong positive correlation between both total COVID-19 knowledge and preventive practices scores in middle aged and older adults groups.

Figures 4&5 show the correlation between total COVID-19 knowledge scores and fear from COVID-19 scores of the studied subjects. The figures clarified that there was a statistically significant strong negative correlation was found between total COVID-19 knowledge scores and fear from COVID-19 scores in middle aged and older adults groups.

Figures 6&7 represent the correlation between total COVID-19 preventive practices scores and fear from COVID-19 scores in both middle aged and older adults groups. These figures revealed that there was a statistically significant strong negative correlation between total COVID-19 preventive practices scores and fear from COVID-19 scores among the study subjects.

Table 1. Demographic characteristics and medical history of middle aged and older adults groups.

Items	Middle-aged group		Older adults group		Test of significance
	N	%	N	%	
	94	50.8	91	49.2	
Age (years)	51.23±6.52		67.16±5.37		
Sex					
Male	57	60.6	56	61.5	Z=0.125
Female	37	39.4	35	38.5	P=0.900

Items	Middle-aged group		Older adults group		Test of significance
	N	%	N	%	
	94	50.8	91	49.2	
Residence					
Urban	49	52.1	46	50.5	Z=0.214
Rural	45	47.9	45	49.5	P=0.830
Occupation					
Employee	51	54.3	0	0	
Worker	12	12.8	0	0	
Housewife	19	20.2	23	25.3	X2=72.323
Farmer	4	4.3	5	5.5	P=0.000*
Retired	0	0	58	63.7	
Private work	8	8.5	5	5.5	
Marital Status					
Single	2	2.1	0	0	
Married	79	84.0	62	68.1	X2=13.597
Divorced	4	4.3	2	2.2	P=0.214
Widow	9	9.6	27	29.7	
Education					
Illiterate	11	11.7	25	27.5	
Read and write	11	11.7	10	11	
Primary education	16	17.0	16	17.6	X2=8.201
Diplome	46	48.9	34	37.4	P=0.084
University	10	10.6	6	6.6	
Income					
Enough	18	19.1	12	13.2	Z=1.097
Not enough	76	80.9	79	86.8	P=0.273
Medical History					
Hypertension					
Yes	29	30.9	36	39.6	Z=-1.237
No	65	69.1	55	60.4	P=0.216
Diabetes Mellitus					
Yes	63	67.0	62	68.1	Z=-0.161
No	31	33.0	29	31.9	P=0.872
Liver cirrhosis					
Yes	10	10.6	12	13.2	Z=-0.534
No	84	89.4	79	86.8	P=0.593
Ischemic Heart disease					
Yes	27	28.7	34	37.4	Z= -1.246
No	67	71.3	57	62.6	P=0.213

means more than one response; Z value of Mann-Whitney U test;

X2 value of Kruskal-Wallis test;

*Significant at $P \leq 0.05$

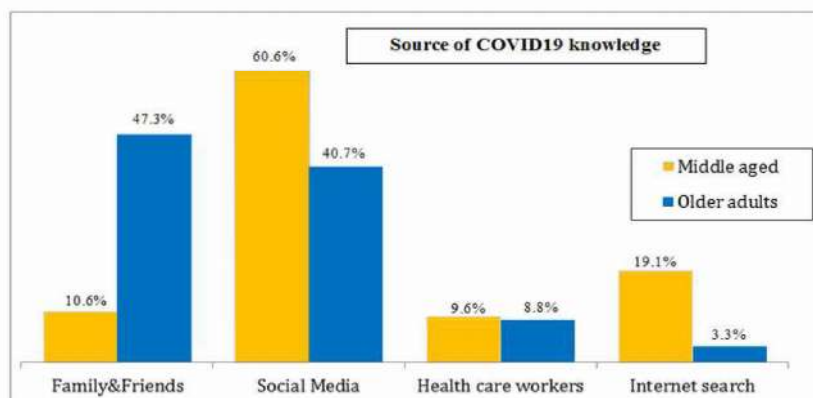


Figure 1. Source of COVID-19 knowledge among middle aged and older adults.

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Table 2. Distribution of studied subjects according to knowledge & preventive practices and fear from COVID-19.

Items	Middle-aged group		Older adults group		Mann-Whitney U test	
	N (94)	%	N (91)	%	Z	p
COVID-19 Knowledge						
Good	35	37.2	30	33.0		
Average	17	18.1	11	12.1		
Poor	42	44.7	50	54.9	-4.123	(0.000) *
Mean $\pm$ SD	20.52 $\pm$ 6.95		16.74 $\pm$ 7.36			
Median (Min-Max)	23 (10 - 30)		14 (7 - 28)			
COVID-19 preventive practices						
Satisfactory	40	42.6	32	35.2		
Unsatisfactory	54	57.4	59	64.8	-4.677	(0.000) *
Mean $\pm$ SD	23.99 $\pm$ 4.43		20.99 $\pm$ 5.53			
Median (Min-Max)	23 (15 - 30)		21 (12 - 28)			
Fear from COVID-19						
Mean $\pm$ SD	12.33 $\pm$ 5.22		20.74 $\pm$ 6.59		-8.088	(0.000) *
Median (Min-Max)	10 (7-25)		23 (10-30)			

*Significant at $p \leq 0.05$

Table 3. Relation between demographic characteristics and both COVID-19 Knowledge & preventive practices among the studied subjects.

Demographic characteristics	COVID-19 Knowledge				COVID-19 preventive practices			
	Middle-aged group (N=94)		Older adults group (N=91)		Middle-aged group (N=94)		Older adults group (N=91)	
	Mean $\pm$ SD	Median (Min-Max)	Mean $\pm$ SD	Median (Min-Max)	Mean $\pm$ SD	Median (Min-Max)	Mean $\pm$ SD	Median (Min-Max)
Sex								
Male	25.29 $\pm$ 4.42	28 (14 - 30)	20.84 $\pm$ 6.19	25 (12-28)	26.75 $\pm$ 2.65	28 (22 - 30)	24.41 $\pm$ 3.54	27 (18 - 28)
Female	13.16 $\pm$ 1.55	14 (10 - 15)	10.17 $\pm$ 3.04	10 (7-17)	19.73 $\pm$ 3.01	20 (15-23)	15.51 $\pm$ 3.27	15 (12 - 22)
Test of significance	Z = -7.934	P=0.000*	Z = -7.201	P=0.000*	Z = -7.467	P=0.000*	Z = -7.196	P=0.000*
Residence								
Urban	26.73 $\pm$ 2.47	28 (23 - 30)	22.96 $\pm$ 4.83	25 (14-28)	27.43 $\pm$ 2.20	28 (23 - 30)	25.59 $\pm$ 2.69	27 (21-28)
Rural	13.76 $\pm$ 2.37	14 (10 - 22)	10.38 $\pm$ 2.27	11 (7-14)	20.24 $\pm$ 2.96	22 (15 - 23)	16.29 $\pm$ 3.24	17 (12 - 22)
Test of significance	Z = -8.432	P=0.000*	Z = -8.181	P=0.000*	Z = -8.007	P=0.000*	Z = -7.970	P=0.000*
Marital Status								
Single	30.00 $\pm$ 0.00	30 (30 - 30)			29.50 $\pm$ 0.71	29.5 (29 - 30)		
Married	24.50 $\pm$ 7.00	28 (14 - 28)	25.50 $\pm$ 0.71	25.5 (25-26)	26.75 $\pm$ 3.20	28 (22 - 29)	27.00 $\pm$ 0.00	27 (27-27)
Divorced	20.49 $\pm$ 6.90	23 (10 - 30)	17.77 $\pm$ 7.17	14 (7 - 28)	21.33 $\pm$ 3.70	22 (17 - 28)	18.29 $\pm$ 5.49	17 (12-28)
Widow	16.89 $\pm$ 5.73	14 (12 - 27)	13.70 $\pm$ 6.99	11 (7 - 28)	24.01 $\pm$ 4.43	23 (15 - 30)	21.97 $\pm$ 5.19	22 (12-28)
Test of significance	X ² = 10.522	P=0.015	X ² = 8.568	P=0.014	X ² = 9.542	P=0.023	X ² = 9.155	P=0.010
Occupation								
Employee	23.59 $\pm$ 6.19	27 (12 - 30)			26.43 $\pm$ 2.94	28 (19 - 30)		
Private work	22.00 $\pm$ 8.40	28 (10 - 28)	16.80 $\pm$ 8.84	19 (7-25)	22.08 $\pm$ 3.15	23 (17 - 29)		
Farmer	13.16 $\pm$ 1.83	14 (10 - 15)	9.35 $\pm$ 2.74	9 (7-17)	18.68 $\pm$ 2.93	18 (15 - 23)	14.44 $\pm$ 2.79	14 (12-22)
Worker	18.08 $\pm$ 5.66	15 (12 - 30)			22.75 $\pm$ 0.50	23 (22-23)	20.60 $\pm$ 3.29	20 (18-26)
Housewife	20.75 $\pm$ 4.50	23 (14 - 23)	15.00 $\pm$ 5.61	13 (12-25)	24.50 $\pm$ 5.88	28 (15 - 29)	20.20 $\pm$ 7.33	22 (12-27)
Retired			19.81 $\pm$ 6.56	20 (11-28)			23.69 $\pm$ 3.99	24 (17 - 28)
Test of significance	X ² = 28.758	P= 0.000*	X ² = 42.501	P= 0.000*	X ² = 41.511	P=0.000*	X ² = 43.584	P=0.000*
Education								
Illiterate	12.36 $\pm$ 3.53	11 (10-22)	9.20 $\pm$ 2.68	9 (7 - 17)	17.46 $\pm$ 3.21	16 (15 - 23)	14.28 $\pm$ 2.73	14 (12-22)
Read and write	15.91 $\pm$ 4.59	14 (12 - 23)	12.00 $\pm$ 2.49	11 (11-19)	19.27 $\pm$ 2.79	18 (17 - 23)	17.80 $\pm$ 1.55	17 (17 - 22)
Primary education	17.13 $\pm$ 4.72	15 (14 - 30)	17.00 $\pm$ 5.79	13 (12-25)	22.50 $\pm$ 2.09	23 (20 - 29)	22.19 $\pm$ 3.43	21 (18 - 27)
Diplome	23.89 $\pm$ 6.09	27.5 (13-28)	21.56 $\pm$ 5.36	25 (14-7)	26.59 $\pm$ 2.79	28 (22 - 30)	25.06 $\pm$ 2.86	27 (21 - 28)
University	24.50 $\pm$ 5.93	27.5 (12-30)	28.00 $\pm$ 0.00	28 (28 - 28)	26.80 $\pm$ 3.22	28 (19 - 29)	28.00 $\pm$ 0.00	28 (28 - 28)
Test of significance	X ² = 39.568	P= 0.000*	X ² = 69.258	P= 0.000*	X ² = 51.645	P=0.000*	X ² = 68.247	P=0.000*
Income								
Enough	22.49 $\pm$ 6.23	23.5 (10-14)	18.15 $\pm$ 6.86	16 (9-28)	25.66 $\pm$ 3.01	28 (20 - 30)	22.29 $\pm$ 4.72	22 (14 - 28)
Not enough	12.22 $\pm$ 1.56	12.5 (12-30)	7.42 $\pm$ 0.51	7 (7-8)	16.94 $\pm$ 1.59	17 (15 - 20)	12.42 $\pm$ 0.67	12 (12-14)
Test of significance	Z = -6.049	P=0.000*	Z = 5.577	P=0.000*	Z = -6.708	P=0.000*	Z = -5.578	P=0.000*

Z value of Mann-Whitney U test;

X² value of Kruskal-Wallis test;

*Significant at $P \leq 0.05$

Table 4. Relation between demographic characteristics and Fear from COVID-19 among the studied subjects.

Demographic characteristics	Fear from COVID-19			
	Middle-aged group (N=94)		Older adults group (N=91)	
	Mean $\pm$ SD	Median (Min-Max)	Mean $\pm$ SD	Median (Min-Max)
Sex				
Male	8.72 $\pm$ 1.54	8 (7-13)	17.04 $\pm$ 5.28	15 (10- 25)
Female	17.89 $\pm$ 3.76	18 (13-25)	26.66 $\pm$ 3.32	27 (19-30)
Test of significance	Z=-8.190	P=0.000*	Z=-7.198	P=0.000*
Residence				
Urban	8.27 $\pm$ 1.09	8 (7-10)	14.98 $\pm$ 3.68	13.5 (10-23)
Rural	16.76 $\pm$ 4.22	16 (11- 25)	26.62 $\pm$ 2.19	26 (23-30)
Test of significance	Z=-8.398	P=0.000*	Z=-8.221	P=0.000*
Occupation				
Employee	9.55 $\pm$ 2.82	8 (7- 19)		
Worker	13.58 $\pm$ 4.582	10 (10- 13)		
Housewife	19.37 $\pm$ 3.22	19 (13- 25)	27.52 $\pm$ 2.95	28 (19-30)
Farmer	10.75 $\pm$ 1.50	8 (8 - 24)	22.60 $\pm$ 4.28	24 (15- 25)
Private work	12.25 $\pm$ 7.03	12 (7- 21)	21.40 $\pm$ 7.50	18 (15- 30)
Retired			17.83 $\pm$ 5.69	16 (10- 26)
Test of significance	X ² =35.649	P=0.000*	X ² =29.164	P=0.000*
Marital Status				
Single	7.00 $\pm$ 0.00	7 (7- 7)		
Married	12.39 $\pm$ 5.22	10 (7- 25)	19.79 $\pm$ 6.33	21.5 (10- 30)
Widow	14.67 $\pm$ 5.19	13 (8-22)	23.44 $\pm$ 6.51	26 (11-30)
Divorced	8.50 $\pm$ 3.00	7 (7- 13)	13.50 $\pm$ 0.71	13.5 (13-14)
Test of significance	X ² =10.901	P=0.012	X ² =8.198	P=0.017
Education				
Illiterate	20.27 $\pm$ 5.22	22 (11-25)	27.68 $\pm$ 2.88	29 (19-30)
Read and write	16.64 $\pm$ 4.78	19 (10-21)	25.00 $\pm$ 2.49	26 (18-26)
Primary education	14.25 $\pm$ 3.53	16 (7-18)	20.81 $\pm$ 4.61	24 (14 - 25)
Diplome	9.70 $\pm$ 3.86	8 (7-15)	16.09 $\pm$ 4.33	13.5 (12- 24)
University	9.30 $\pm$ 2.41	8.5 (7-19)	10.83 $\pm$ 0.75	11 (10-12)
Test of significance	X ² =47.024	P=0.000*	X ² =69.451	P=0.000*
Income				
Enough	21.17 $\pm$ 2.20	21 (18- 25)	29.42 $\pm$ 0.51	29 (29-30)
Not enough	10.24 $\pm$ 3.08	9 (7- 18)	19.42 $\pm$ 6.06	20 (10-29)
Test of significance	Z=-6.605	P=0.000*	Z=-5.533	P=0.000*

Z value of Mann-Whitney U test;

X² value of Kruskal-Wallis test;*Significant at P $\leq$ 0.05**Table 5.** Relation between COVID-19 knowledge & preventive practices and fear from COVID-19 among the studied subjects.

Items	Fear from COVID-19			
	Middle-aged group (N=94)		Older adults group (N=91)	
	Mean $\pm$ SD	Median (Min-Max)	Mean $\pm$ SD	Median (Min-Max)
COVID-19 Knowledge				
Good	7.97 $\pm$ 2.01	8 (7-19)	12.63 $\pm$ 1.33	13 (10- 15)
Average	9.82 $\pm$ 0.64	10 (9- 11)	18.09 $\pm$ 1.514	18 (16- 20)
Poor	16.98 $\pm$ 4.16	16.5 (11- 25)	26.18 $\pm$ 2.49	26 (21-30)
Test of significance	X ²	P	X ²	P
	74.515	0.000*	72.073	0.000*
COVID-19 preventive practices				
Satisfactory	7.88 $\pm$ 0.79		8 (7-10)	12.84 $\pm$ 1.53
Unsatisfactory	15.63 $\pm$ 4.61		14.5 (10- 25)	25.02 $\pm$ 3.62
Test of significance	Z	P	Z	P
	-8.277	0.000*	-7.859	0.000*

*Significant at P $\leq$ 0.05

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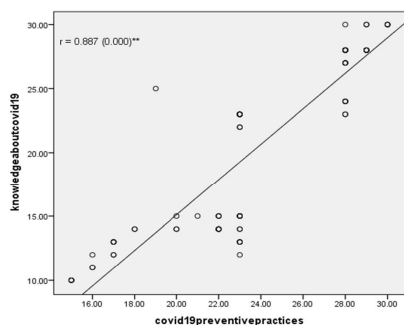


Figure 2. Correlation between total scores of COVID-19 knowledge and preventive practices among middle aged group.

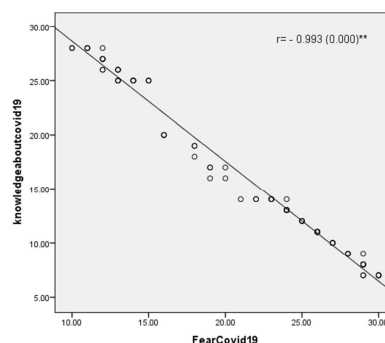


Figure 5. Correlation between total scores of COVID-19 knowledge and fear from COVID-19 among older adults group.

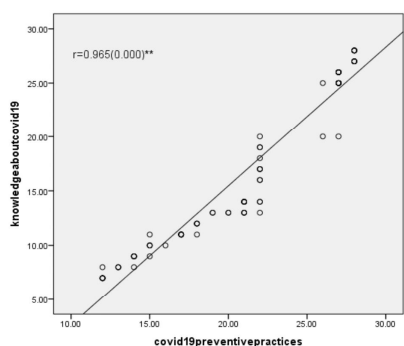


Figure 3. Correlation between total scores of COVID-19 knowledge and preventive practices among older adults group.

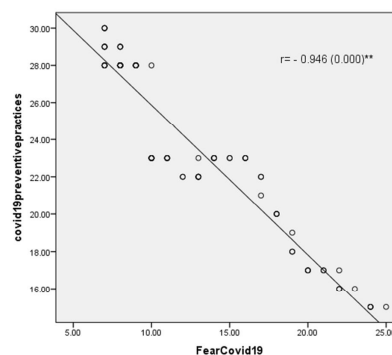


Figure 6. Correlation between total scores of COVID-19 preventive practices and fear from COVID-19 among middle aged group.

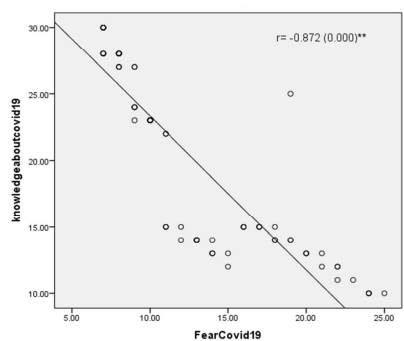


Figure 4. Correlation between total scores of COVID-19 knowledge and fear from COVID-19 among middle aged group.

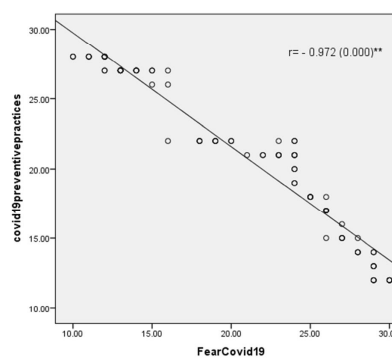


Figure 7. Correlation between total scores of COVID-19 preventive practices and fear from COVID-19 among older adults group.

Table 6. Relation between COVID-19 knowledge and preventive practices among the studied subjects.

Items	COVID-19 Knowledge			
	Middle-aged group (N=94)		Older adults group (N=91)	
	Mean $\pm$ SD	Median (Min-Max)	Mean $\pm$ SD	Median (Min-Max)
COVID-19 preventive practices				
Satisfactory	27.58 $\pm$ 1.89	28 (23- 30)	25.84 $\pm$ 1.90	26 (20- 28)
Unsatisfactory	15.29 $\pm$ 4.08	14 (10- 23)	11.79 $\pm$ 3.39	11 (7- 20)
			Mann-Whitney U test	
Test of significance	Z	P	Z	P
	8.276	0.000*	8.117	0.000*

*Significant at $P \leq 0.05$

4. Discussion

Coronavirus disease 2019 (COVID-19) is a novel disease that has caused numerous effects on public's daily life unusually. A sudden outbreak of new COVID-19 has happened since December 2019 in Wuhan City, Hubei Province, a central city in the people's republic of China, where transference is tremendously suitable to attaching all other places inside China and outside it precisely African countries like Algeria, Nigeria and Egypt Qian et al., [42].

As the World Health Organization has declared the fast-spreading of COVID-19 as an epidemic Saadat et al., [48]. The main step to fight any infectious disease pandemic in nature is to evaluate knowledge and preventive practices about the disease. Simultaneously, the effect of a pandemic on psychological responses such as fear Doshi et al. [20]. Therefore, this study was aimed to determine knowledge, preventive practices, and fear toward COVID-19 among middle aged and older adults: during the novel coronavirus outbreak.

Regarding demographic characteristics and medical history of the studied subjects, the current study showed that most of the participants of the two groups either middle aged or older adults were male. It is in the same line with Kebede et al., [32] who stated that more than three fourths of respondents were male. In contrast, Azlan et al., [10] reported that more than half of the participants were female. From the researchers' point of view, this difference may be due to variation in the sample size of participants.

Concerning the educational level, the results of this study revealed that diploma education was prevailing most of the two groups. This finding is in contrast with a study carried out by Geldsetzer., [23] who stated that Bachelor's degree was prevailing among participants. This may be related to the distinction of setting and different nature of studied subjects. Regarding participants' medical history, it was found that diabetes mellitus was the most prevailing disease among middle aged and older adults groups. These results agree with Wolf et al., [55] who said that more than half of participants have diabetes mellitus.

As regard to the source of COVID-19 knowledge among middle aged and older adults, the present study showed that social media was considered the most common source of COVID-19 knowledge among both groups, this result is in

accordance with Abdelhafiz et al. [1] who found that the most commonly stated sources of COVID-19 knowledge were social media. In addition, Olaimat et al., [40] stated that social media was the most common source of knowledge about COVID-19. Additionally, Bhagavathula et al., [12] reported that the main source of COVID-19 information was social media. This may be due to social media have a wide range of channels as television, radio, and so on. Also, it is available at any time and easy to access.

Concerning knowledge, preventive practices, and fear from COVID-19, It was noticed that there was a statistically significant difference was found between middle aged group and older adults groups regarding COVID-19 knowledge as about two fifths of middle aged group had good COVID-19 knowledge compared to one third of older adults. This coincides with a study conducted in Egypt by Abdelhafiz et al. [1] who emphasized that the mean knowledge score about COVID-19 was significantly lower among older participants. This finding may be due to that most of the older adults during the COVID-19 outbreak live alone and no one visits them to increase their awareness about COVID-19. Also, most of the older adults were had a lower educational level than middle aged.

In relation to COVID-19 preventive practices, the current study showed that there was a statistically significant difference was found between middle aged group and older adults group as more than two fifths of middle aged group had satisfactory COVID-19 preventive practices in comparison with more than one third of older adults group. It is in the same direction with Zhong et al., [64] who reported that older adults are more likely to have inappropriate preventive practices towards COVID-19. Additionally, Salman et al., [49] revealed that geriatric populations would be more likely to have poor knowledge and preventive practices. These results are inconsistent with a study done in the Kingdom of Saudi Arabia by Al-Hanawi et al., [4] who found that older adults are likely to have better knowledge and practices than younger people. This may be due to most of the older adults in our study who had low socioeconomic status as most of them retired which discourage them to be compliant with COVID-19 preventive practices.

Regarding fear from COVID-19, the current study showed that there was a statistically significant difference was found

between middle aged group and older adults group as older adults had a higher level of fear than middle aged. This come in accordance with Guterres., [27] who said that the COVID-19 pandemic is causing untold fear and suffering for older adults across the world. These results may be due to older adults are twice as likely to have serious COVID-19 Centers for disease control and prevention [16]. This is expected because as people age, their immune systems change, making it harder for their body to fight off infection and diseases, and because many older adults are also more likely to have health conditions that make it harder to cope with and recuperate from. Age increases the risk that the lungs or respiratory system will shut down when an older person has COVID-19 disease Cameron., [13].

Concerning the relation between demographic characteristics and both COVID-19 knowledge & preventive practices among the studied subjects, the current study revealed that males obtain higher mean scores of COVID-19 knowledge & preventive practices than females in middle aged and older adults groups. It is in accordance with a study conducted by Almofada et al., [6] who revealed that males had a higher percentage of COVID-19 knowledge compared to females. However, these results contrast with Al-Hanawi et al., [4] who reported that males have less knowledge and less good practice toward COVID-19 than females. Additionally, Hezima et al., [30] found that female participants obtain higher mean scores of COVID-19 knowledge than male participants ($P = 0.001$).

As regard to residence, the current study revealed that there was statistically significant relation was found between residence and both COVID-19 knowledge & preventive practices among the studied subjects as study subjects who were residing in urban areas had both higher scores of COVID-19 knowledge and preventive practices than others in both middle aged and older adults group. It is in the same line with Zhong et al., [64] who revealed that rural people with low income are more likely to have poor knowledge, negative attitudes, and inappropriate preventive practices towards COVID-19. Besides, Salman et al., [49] reported that rural populations would be more likely to have poor knowledge and preventive practices.

Concerning income, the current study revealed that there was a statistically significant relation between both COVID-19 knowledge & preventive practices among the studied subjects as the studied subjects with enough income had both higher scores of COVID-19 knowledge and preventive practices than others in both middle aged and older adults group. It is agreed with a study done in Egypt by Abdelhafiz et al. [1] who reported that COVID-19 Knowledge was significantly lower among lower-income participants. Additionally, Azlan et al., [10] reported that higher knowledge scores were obtained among participants in the higher income category as subjects with a high income had money to shop masks, gloves, and other preventive equipment than others.

As detected from this study results regarding the level of education, it was obvious that study subjects with university

education had both higher scores of COVID-19 knowledge and preventive practices than others. It is consistent with Zegaravaldivia et al., [63] who highlighted that Well-educated people have a better understanding of control measures and preventive strategies related to COVID-19. Additionally, Al-Mohrej et al., [7] as well as, Bawazir et al., [11] reported that more educated participants are more knowledgeable regarding preventive measures of diseases than others.

Concerning the relation between demographic characteristics and fear from COVID-19 among the studied subjects, the current study revealed that female and lower educational level participants had a higher level of fear than male and university education participants in both middle aged and older adults groups. It is in the same line with Doshi et al., [20] who reported that females and lower educational status displayed significantly higher odds for a high level of fear compared to their respective counterparts in this study population.

Regarding the relation between residence and fear from COVID-19 among the studied subjects, the current study revealed that study subjects who were living in rural areas had a higher level of COVID-19 fear than those who were living in urban areas. Otherwise, a study was done in Bangladesh by Hossain et al., [31] revealed that Dhaka urban dwellers reported a higher status of COVID-19 fear than rural dwellers this may due to subjects in a rural area had fewer health centers and had difficult to access health centers than who residing in urban, so they fear from acquiring disease than others. Also, the present study showed that there was a statistically significant strong negative correlation between fear from COVID-19 and either total Knowledge about COVID-19 scores & total COVID-19 preventive practices scores in both middle aged and older adults groups. It was in the same line with Hossain et al., [31] who reported that knowledge scores showed contrasting correlation with Fear scores. In contrast, Ali et al., [5] didn't find a correlation between fear and knowledge.

Concerning the relation between total COVID-19 knowledge scores and preventive practices scores among both middle aged and older adults groups. The study revealed that there was a statistically significant strong positive correlation between total COVID-19 knowledge scores and preventive practices scores among study subjects this may due to when an individual had good knowledge about COVID-19 they aware of complications and serious consequences of the disease so they practice preventive measures better than individual with poor knowledge It is agreed with Rahman& Sathi., [44] who found a positive correlation between the COVID-19 knowledge scores and Preventive practices scores, So a good knowledge is important for a better practice toward COVID-19. On the other hand, a study was conducted in Egypt by Hamza et al., [29] who revealed that no correlation appeared to exist between COVID-19 knowledge and practice. Finally, these previous findings highlight the importance of assessing knowledge, preventive practices, and fear toward COVID-19 among middle aged and older adults: during the novel coronavirus outbreak.

5. Conclusion

Based on the findings of the current study, it can be concluded that social media was considered the most common source of COVID-19 knowledge among both middle aged and older adults groups. Middle aged adults had a significantly high score of COVID-19 knowledge and preventive practices and lower level of COVID-19 fear than older adults as a strong negative correlation between fear from COVID-19 and either COVID-19 knowledge & preventive practices were found. This finding indicates that increase awareness about COVID-19 and how to prevent it important for decreasing the level of COVID-19 fear.

6. Recommendations

Based on the results of the present study the following recommendations are suggested:

- 1) Educational programs should be planned and implemented by nurses in different care settings regarding COVID-19 and providing the public with educational materials as; books, pamphlets, and videos to increase their awareness about COVID-19 and promoting their COVID-19 preventive practices to stop its spread.
- 2) Development and implementation of psychological rehabilitation programs for the public to alleviate their COVID-19 fear and help them to cope with novel coronavirus outbreak.
- 3) Future researches are needed to assess factors that affecting COVID-19 knowledge, preventive practices, and level of COVID-19 fear.

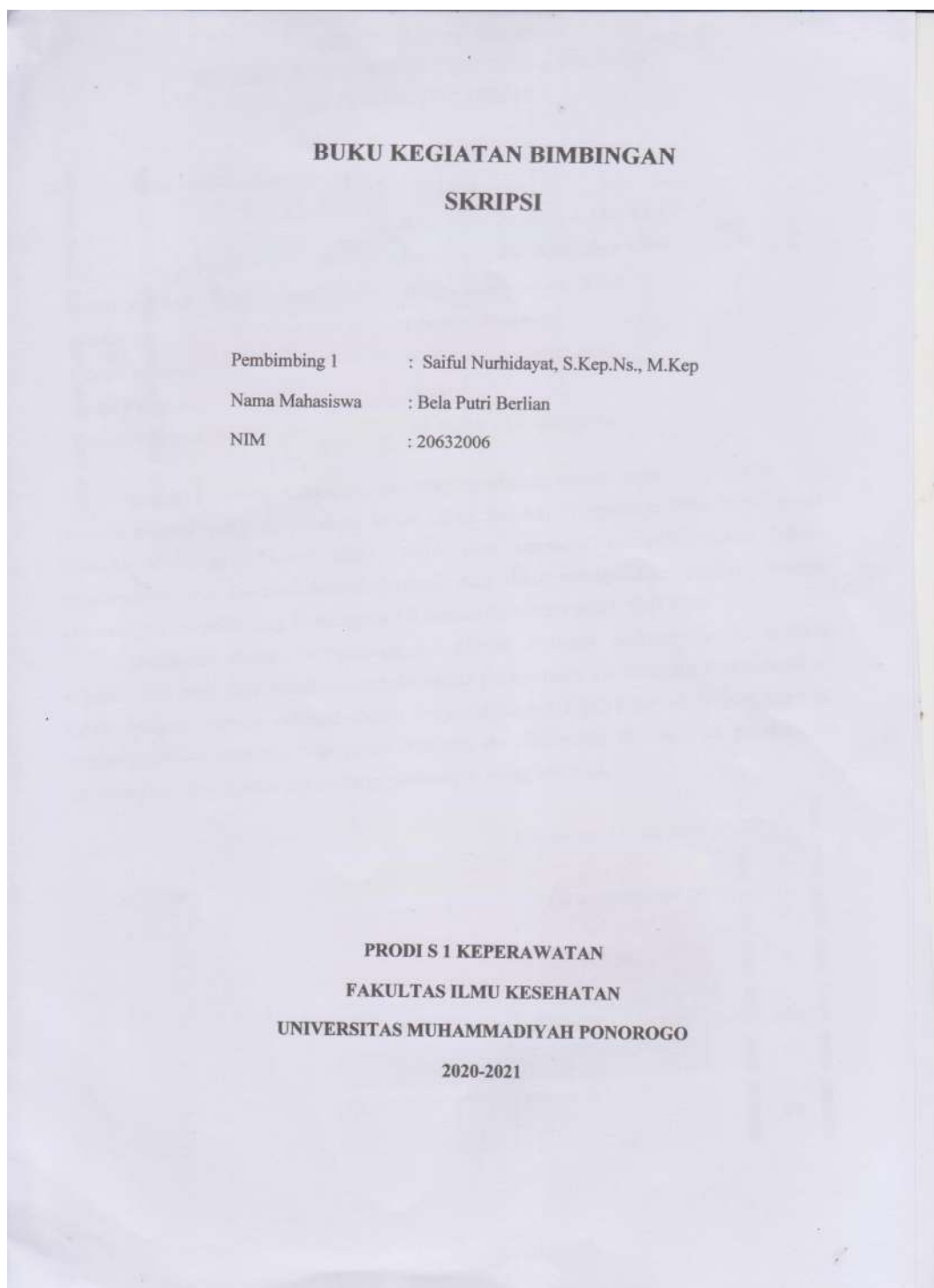
Acknowledgements

We would like to thank all studied participants as well as health personnel in the Temai Elamdid health insurance outpatient clinics that affiliated to the ministry of health, Egypt for their participation to fulfill this study.

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Lampiran 2. Logbook

LEMBAR KONSULTASI

NO.	HARI/TANGGAL	REKOMENDASI	TANDA TANGAN
1	Jumat/25 Juni 2021	1) Cari Jurnal/Literatur yang mendukung masalah Penelitian. 2) Buat Bab 1.	
2	Senin/5 Juli 2021	Revisi: 1) Introduksi, jangan langsung teori, Paparan masalah yang diangkat 2) Pada Justifikasi berikan data yang mendukung Penelitian, tunjukkan bahwa Perilaku Pencegahan bisa diatasi dengan pengetahuan. 3) Tunjukkan hasil Penelitian terdahulu 4) Tujuan sesuai dengan Literatur Review	
3	Senin/12 Juli 2021	1) Revisi tujuan Penelitian. Cantumkan satu saja sesuai masalah/Judul. 2) Siapkan Bab 2	
4	Jumat/13 Agustus 2021	1) Cari Jurnal sesuai kriteria 2) Sesuaikan dengan judul 3) Lengkapi, sesuaikan dengan Panduan.	
5	Kamis/26 Agustus 2021	1) Konsul keseluruhan.	
6	Senin/30/8/2021	Ma sip Yi.	

NO.	HARI/TANGGAL	REKOMENDASI	TANDA TANGAN
7.	06/01/2022	Konsultasi revisi Proposal: Ace Lanjutkan bab berikutnya.	
8.	11/01/2022	Tambahkan jurnal dari data- base lain, jangan hanya dari google scholar saja	
9.	29/01/2022	Pembahasan dibuat sesuai fakta, teori, opini dan di- jabarkan perjurnal	
10	25/01/2022	Formul Kendu	
11	27/01/2022	Ace sip Yis	

**BUKU KEGIATAN BIMBINGAN
SKRIPSI**

Pembimbing 1 : Saiful Nurhidayat, S.Kep.Ns., M.Kep
Nama Mahasiswa : Bela Putri Berlian
NIM : 20632006

**PRODI S 1 KEPERAWATAN
FAKULTAS ILMU KESEHATAN
UNIVERSITAS MUHAMMADIYAH PONOROGO
2020-2021**

NO.	HARI/TANGGAL	REKOMENDASI	TANDA TANGAN
1.	Senin/12 Juli 2021	Konsultasi Jurnal Penelitian Kerjakan Latar belakang	
2.	Rabu/14 Juli 2021	Revisi Latar belakang : → Sesuaikan dengan IJES → Jadikan 4 Paragraf → Spesifikkan Pada Solusi Perilaku Pencegahan COVID-19	
3.	Rabu/4 Agustus 2021	Lanjutan Bab 2 dan 3	
4.	Senin/23 Agustus 2021	Bab II : → Jurnal kedua tidak masuk dalam variabel Penelitian → Jurnal keempat perlu dilengkapi → Penjabaran hasil penelitian kurang lengkap pada Jurnal kelima	
S.	Senin/30 Agustus 2021	Siapkan via jurnal-	
	Kamis/27 Januari 2022	Jurnal 3.4.5.6.7.8 tidak masuk dalam variabel Penelitian karena ada variabel tetap Pembahasan kupa tunas tentang Pengetahuan & Perilaku	
	Senin/07 Februari 2022	Revisi tujuan Penelitian, mengganti kata "menjelaskan" dengan meng- analisa Kesimpulan sesuaikan tujuan Penelitian.	

