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## Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

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### ABSTRACT

Cervical cancer was caused approximately 90% of death occurred in low and middle-income countries. Indonesia was the second country which has the most cervical cancer cases in the world. Midwives had a important role for cervical cancer screening and also as role model in society. Cervical cancer screening recommendation was pap smear test. This study aims to determine the factors that associated in midwife's pap smear behavior. This study used a quantitative cross-sectional design. Subjects were 65 midwives in primary health care in Yogyakarta City. Combination Theory used Precede and Procede and Health Belief Model. This research analysis used univariate, bivariate and multivariate analysis. The results showed that there were 61.5% of midwives have did implementation of pap smear. There was a relationship between age ( $p=0.002$ ), attitude ( $p=0.028$ ), cost ( $p=0.208$ ) and vulnerability ( $p=0.001$ ) with pap smear behavior. There was no correlation between value ( $p=0.724$ ), benefit ( $p=0.403$ ) and severity ( $p=0.813$ ) with pap smear behavior. Multivariate analysis showed that age was the most dominant factors affecting pap smear behavior ( $p$ -value 0.009; PR 26.903; CI 95% 2.251-321.490). Need to improved promotive efforts about pap smear among midwives and also women in general.

Keywords: midwives; screening; cervical cancer; age

### Pendahuluan

Kanker serviks menempati urutan keempat kanker tersering pada wanita pada tahun 2018 dengan perkiraan 570.000 kasus baru, mewakili 6,6% dari seluruh kanker wanita. Sekitar 90% kematian akibat kanker serviks terjadi di negara berpenghasilan rendah dan menengah [1]. Indonesia merupakan negara kedua di dunia dengan penderita kanker serviks terbanyak [2]. Berdasarkan data Kementerian Kesehatan tahun 2015, rata-rata setiap jam jumlah penderita kanker serviks meningkat 2,5 orang dan 1,1 wanita meninggal karena kanker serviks. Prevalensi dan estimasi kanker serviks tahun 2013 di Indonesia sebesar 0,8% dengan total estimasi 98,692 kasus. Daerah Istimewa Yogyakarta merupakan

salah satu dari tiga provinsi yang memiliki prevalensi kanker serviks tertinggi yaitu 1,5% dengan jumlah 2703 kasus [3].

Tingginya angka kematian akibat kanker serviks secara global dapat dikurangi melalui pendekatan komprehensif yang mencakup pencegahan, diagnosis dini, program skrining dan pengobatan yang efektif [1]. Bentuk paling umum dari kanker serviks dimulai dengan perubahan pra-kanker, dan ada cara untuk menghentikan perkembangan penyakit ini. Cara pertama adalah menemukan dan mengobati pra-kanker sebelum menjadi kanker sejati dan yang kedua adalah mencegah pra-kanker. Jika pra-kanker ditemukan, dapat diobati, menghentikan kanker serviks sebelum benar-benar dimulai. Skrining kanker serviks yang dikenal dengan tes pap smear

merupakan metode yang efektif untuk deteksi dini kanker serviks. Tes pap adalah prosedur yang digunakan untuk mengumpulkan sel-sel dari leher rahim sehingga dapat dilihat di bawah mikroskop untuk menemukan kanker dan pra-kanker. Sebagian besar kanker serviks invasif ditemukan pada wanita yang belum menjalani tes pap secara teratur [4].

Pemerintah Indonesia mengoptimalkan program deteksi dini kanker serviks untuk meningkatkan pelaksanaan pencegahan dan deteksi dini kanker pada wanita di Indonesia dengan memfasilitasi pemeriksaan pap smear gratis menggunakan jaminan kesehatan nasional (BPJS Kesehatan). Sayangnya, masih banyak perempuan yang tidak melakukan skrining kanker serviks meski sudah ada program dari pemerintah. Berdasarkan penelitian Sari, mayoritas motivasi wanita usia subur untuk melakukan deteksi dini kanker serviks sangat rendah (60,0%) dan sebanyak 54,0% responden belum pernah melakukan pap smear [6]. Dalam penelitian lain yang dilakukan oleh Kusumaningrum menyatakan bahwa sebagian besar wanita usia subur (61,1%) di Pancuran, Bantul tidak mendukung pemeriksaan pap smear [7].

Pelaksanaan deteksi dini kanker serviks dilakukan oleh tenaga kesehatan yang berwenang, termasuk bidan. Sebagai tenaga kesehatan, profesi bidan harus menjadi panutan bagi masyarakat untuk melakukan skrining kanker sedini mungkin. Namun penelitian yang dilakukan oleh Syaiful menyebutkan bahwa fenomena yang terjadi adalah profesi bidan tidak patuh untuk melakukan pap smear padahal mereka memiliki pengetahuan yang baik tentang kanker serviks dan proses pemeriksaan pap smear. Bidan sebagai tenaga kesehatan harus menjadi panutan bagi masyarakat. Salah satu tugas Bidan khususnya dalam hal pencegahan yaitu kanker serviks dengan deteksi dini. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi perilaku bidan dalam pencegahan kanker serviks dengan tes pap smear.

## Metode Penelitian

Penelitian ini merupakan penelitian kuantitatif dengan pendekatan cross sectional. Subjek penelitian ini adalah 65 bidan di 14 Puskesmas di Yogyakarta. Subyek dipilih secara acak. Perhitungan sampel untuk ukuran sampel minimum menggunakan rumus Lemeshow. Semua subjek sukarela berpartisipasi untuk penelitian ini dengan menandatangani persetujuan. Penelitian ini juga telah mendapatkan persetujuan etik dari Komisi Etik Poltekkes Kemenkes Yogyakarta. Penelitian ini menggunakan pendekatan kerangka teori kombinasi model Precede-Proceed (Lawrence Green) pada variabel sikap dan nilai (malu) dan Health Belief Model yang terdiri dari Severity, Vulnerability, Cost dan Benefit. Variabel bebas dalam penelitian ini terdiri dari umur bidan, sikap terhadap perilaku pap smear, tingkat keparahan, kerentanan bidan, tingkat biaya tes pap smear, tingkat manfaat tes pap smear. Variabel terikat adalah perilaku pap smear pada bidan. Penelitian ini diukur dengan kuesioner tentang sikap bidan (merasa dari ketakutan), nilai (merasa malu), tingkat keparahan, kerentanan bidan tentang kanker serviks dan tingkat biaya dan manfaat perilaku tes pap smear menggunakan skala analog visual dari 0 sampai dengan 10. 0 berarti negatif dan 10 berarti positif. Dikategorikan untuk setiap variabel tergantung pada normalitas data. Dikategorikan menurut cara untuk data normal dan median yang digunakan untuk data tidak normal. Usia dikategorikan kurang dan lebih 35 tahun, sikap dan nilai terhadap pap smear dikategorikan positif dan negatif, biaya dikategorikan terjangkau dan tidak terjangkau, manfaat dikategorikan tidak bermanfaat dan bermanfaat, keparahan dikategorikan tidak parah dan cukup parah, kerentanan dikategorikan tidak berisiko dan berisiko dan perilaku pap smear dikategorikan ya dan tidak. Analisis menggunakan analisis univariat untuk menggambarkan distribusi frekuensi, analisis bivariat menggunakan uji chi square, sedangkan analisis multivariat menggunakan regresi logistik untuk semua variabel dengan  $p < 0,25$ .

## Hasil dan Pembahasan

**Tabel 1.**  
**Analisis univariat Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia**

Variabel	n (65)	%
Usia		
<35 tahun	26	40.0
>35 tahun	39	60.0
Sikap terhadap perilaku pap smear		
Positif	32	49.2
Negatif	33	50.8
Nilai terhadap perilaku pap smear		
Positif	32	49.2
Negatif	33	50.8
Biaya untuk pap smear		
Terjangkau	30	46.2
Tidak terjangkau	35	53.8
Manfaat terhadap pap smear		
Tidak berguna	27	41.5
Berguna	38	58.5
Persepsi Keparahannya terhadap kanker serviks		
Tidak parah	35	53.8
Cukup parah	30	46.2
Persepsi Kerentanan terhadap kanker serviks		
Resiko rendah	38	58.5
Resiko tinggi	27	41.5
Perilaku Pap Smear		
Tidak	25	38.5
Ya	40	61.5

**Tabel 2.**  
**Analisis Bivariabel Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia**

Variabel	Perilaku Pap Smear				Total		<i>P value</i>
	n	Tidak %	Ya n	%	n	%	
Usia							
<35 tahun	16	61.5	10	38.5	26	100	0.002
>35 tahun	9	23.1	30	76.9	39	100	
Total	25	38.5	40	61.5	65	100	
Sikap							
Positif	8	25.0	24	75.0	32	100	0.028
Negatif	17	51.5	16	48.5	33	100	
Total	25	38.5	40	61.5	65	100	
Nilai							
Positif	13	40.6	19	59.4	32	100	0.724
Negatif	12	36.4	21	63.6	33	100	
Total	25	38.5	40	61.5	65	100	
Biaya							
Terjangkau	14	46.7	16	53.3	30	100	0.208
Tidak terjangkau	11	31.4	24	68.6	35	100	
Total	25	38.5	40	61.5	65	100	

Variabel	Perilaku Pap Smear				Total		P value
	n	Tidak %	Ya n	%	n	%	
Manfaat							
Tidak berguna	12	44.4	15	55.6	27	100	0.403
Berguna	13	34.2	25	65.8	38	100	
Total	25	38.5	40	61.5	65	100	
Keparahan							
Tidak parah	13	37.1	22	62.9	35	100	0.813
Cukup parah	12	40.0	18	60.0	30	100	
Total	25	38.5	40	61.5	65	100	
Kerentanan							
rendah	25	65.8	13	34.2	38	100	0.001
tinggi	0	0.0	27	100.0	27	100	
Total	25	38.5	40	61.5	65	100	

**Tabel 3.**  
**Hasil Analisis Multivariabel Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia**

Variabel	p value	Exp (B)	95% CI for EXP(B)	
			Lower	Upper
Usia	0.009	26.903	2.251	321.490
Sikap	0.030	12.572	1.281	123.408

Distribusi frekuensi baik variabel dependen maupun independen seperti usia bidan, sikap terhadap perilaku pap smear, tingkat keparahan, kerentanan bidan, tingkat biaya tes pap smear, tingkat manfaat tes pap smear ditunjukkan pada tabel 1.

Berdasarkan tabel 1, hasil penelitian ini menunjukkan bahwa mayoritas responden berusia lebih dari 35 tahun (60,0%). Mayoritas subjek memiliki sikap negatif (50,8%), memiliki nilai negatif tinggi pada tes pap smear (50,8%). Mayoritas subjek menyatakan bahwa tes pap smear tidak terjangkau (53,8%) tetapi bermanfaat (58,5%). Sebagian besar responden menyatakan bahwa kanker serviks bukanlah penyakit berat (53,8%), dan sebagian besar responden menyatakan bahwa mereka berisiko rendah terkena kanker serviks (58,5%) dan memiliki perilaku tes pap smear (61,5%).

Berdasarkan tabel 2 menunjukkan variabel usia, hasil penelitian menunjukkan bahwa yang mendominasi adalah responden berusia lebih dari 35 tahun dan memiliki perilaku pap smear sebanyak 30 responden (76,9%). Responden dengan sikap positif dan perilaku pap smear sebanyak 24 responden (75,0%). Persentase ini lebih besar dibandingkan responden dengan sikap negatif dan tidak memiliki perilaku pap smear yang berjumlah 17 responden (51,5%). Responden yang memiliki nilai negatif dan memiliki perilaku pap smear lebih

banyak yaitu 21 responden (63,6%) dibandingkan responden yang tidak memiliki perilaku pap smear.

Berdasarkan variabel tingkat biaya, hasil penelitian menunjukkan bahwa yang dominan adalah responden yang mengatakan tes pap smear mahal dan memiliki perilaku pap smear sebanyak 24 responden (68,6%). Berdasarkan variabel tingkat manfaat diperoleh hasil yang dominan adalah responden yang menyatakan pap smear bermanfaat dan memiliki perilaku pap smear sebanyak 25 responden (65,8%). Sedangkan responden yang tidak berat dan tidak melakukan pap smear sebanyak 22 responden (62,9%). Berdasarkan variabel kerentanan, yang dominan adalah responden berisiko dan memiliki perilaku pap smear sebanyak 27 responden (100,0%).

Analisis chi square menunjukkan bahwa ada hubungan yang signifikan antara usia dan kerentanan dengan perilaku pap smear (p-value <0,05). Hasil analisis chi square menunjukkan bahwa tidak ada hubungan yang signifikan antara sikap, nilai, biaya, manfaat dan keparahan dengan perilaku pap smear. Dalam analisis multivariabel, variabel yang memenuhi syarat untuk uji regresi logistik adalah umur, sikap, biaya dan kerentanan.

Berdasarkan tabel 3, hasil analisis menunjukkan bahwa faktor yang paling mempengaruhi perilaku pap smear adalah usia dengan p-value 0,009 dengan PR= 26,903 (95% CI 2.251-321.490). Hal ini menunjukkan bahwa bidan

yang berusia kurang dari 35 tahun memiliki perilaku pap smear yang kurang dari 26.903 lebih besar dibandingkan dengan bidan yang berusia lebih dari 35 tahun. Penelitian sebelumnya menunjukkan bahwa hubungan antara usia dan partisipasi dalam tes pap smear telah diakui dalam beberapa penelitian ( $p < 0,05$ ), menunjukkan bahwa persentase skrining kanker serviks bervariasi berdasarkan usia. Seiring bertambahnya usia wanita, mereka kemungkinan besar akan melakukan tes pap smear. [10-12].

Faktor lain yang mempengaruhi perilaku pap smear adalah sikap dengan  $p$ -value 0,03 PR = 12,572 (95% CI 1,281-123,408). Bidan yang memiliki sikap negatif berisiko memiliki perilaku pap smear yang lebih sedikit 12,572 kali lebih besar daripada bidan yang memiliki sikap positif. Sikap merupakan variabel yang signifikan terhadap perilaku pap smear.

Hasil penelitian ini menunjukkan hasil yang signifikan antara usia ibu dengan perilaku Pap smear  $p$ -value  $< 0,02$ . Bidan yang lebih tua memutuskan untuk melakukan papsmear karena risiko. Berbeda dengan penelitian sebelumnya yang dilakukan oleh Dewi Suryani dkk dan Dwika Gustiana dkk yang menyatakan tidak ada hubungan antara usia dengan perilaku Pap smear [13-14].

Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Ncube et al yang menunjukkan adanya hubungan yang signifikan antara sikap (feel of fear) dan perilaku pap smear ( $p$ -value  $< 0,05$ ) [15]. Banyak peneliti menemukan bahwa ketakutan akan didiagnosis kanker serviks, sakit perut setelah pap smear, dan perasaan tidak nyaman selama tes dapat berdampak negatif pada wanita yang melakukan tes pap [16-18].

Berdasarkan variabel kerentanan, hasil statistik dalam penelitian ini menunjukkan bahwa terdapat hubungan yang signifikan antara kerentanan dengan perilaku pap smear dengan  $p$ -value 0,001 ( $p$ -value  $< 0,05$ ). Hal ini didukung oleh hasil penelitian Rachmawati yang menyatakan bahwa terdapat hubungan yang signifikan antara kerentanan dengan perilaku pap smear dengan  $p$ -value 0,01 ( $p$ -value  $< 0,01$ ) [19]. Hasil penelitian ini juga didukung oleh penelitian Karimy dkk yang menyatakan ada hubungan yang signifikan antara kerentanan (kerentanan) dengan perilaku pap smear [20].

Kerentanan yang dirasakan adalah persepsi subjektif seseorang tentang risiko terkena penyakit. Seseorang akan bertindak untuk mengobati atau mencegah penyakit jika merasa rentan terhadap serangan penyakit

tersebut. Kerentanan setiap perempuan berbeda-beda tergantung dari risiko individu yang dirasakan dari situasi tertentu. Jika seorang wanita merasa rentan, wanita tersebut akan berniat untuk melakukan pap smear. Hal ini dikarenakan mereka merasa rentan terhadap kanker serviks sehingga ingin mencegah penyakit tersebut. Sedangkan persepsi kerentanan perempuan tidak cukup membuat perempuan tidak peka terhadap risiko terkena suatu penyakit, sehingga tidak aktif melakukan pencegahan dengan pap smear.

Faktor lain yang mempengaruhi perilaku pap smear adalah nilai (tingkat malu), tingkat biaya, tingkat manfaat dan tingkat keparahan. Namun dalam penelitian ini menunjukkan bahwa tidak ada hubungan yang signifikan antara tingkat biaya, tingkat manfaat dan tingkat keparahan dengan perilaku pap smear ( $p$ -value  $> 0,05$ ). Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Cholifah dkk yang menyatakan bahwa tidak ada hubungan antara tingkat rasa malu dengan perilaku pap smear [22]. Namun penelitian lain menunjukkan sebaliknya. Penelitian Suantika dkk menyatakan bahwa wanita sering mengeluh merasa malu sehingga wanita jarang mau melakukan pap smear, seperti bidan. Merasa malu karena pemeriksaan langsung pada organ intim menjadikan kendala utama untuk keikutsertaannya dalam pap smear [23].

Sebuah studi yang dilakukan oleh Ashtarian et al menyatakan bahwa meskipun biaya rendah dan aksesibilitas untuk tes pap dapat dianggap sebagai fasilitator, hasilnya menunjukkan bahwa akses yang mudah dan terjangkau untuk tes pap tidak berharga bagi perempuan [24]. Namun hasil ini berbeda dengan penelitian yang dilakukan oleh Kim yang menyatakan bahwa tingkat biaya memiliki hubungan dengan perilaku pap smear [25].

Dalam penelitian lain yang dilakukan oleh McFarland menyatakan bahwa tidak ada hubungan antara tingkat manfaat dan tingkat keparahan dengan perilaku pap smear. Berdasarkan variabel tingkat manfaat dan tingkat keparahan, bidan yang pernah melakukan pap smear dan bidan yang tidak pernah melakukan pap smear sangat mirip [26]. Temuan ini tidak konsisten dengan temuan sebelumnya [27]. Keparahannya merupakan persepsi seseorang terhadap berat ringannya penyakit yang diderita. tindakan seseorang untuk mencari pengobatan dan pencegahan penyakit didorong oleh ancaman penyakit [21]. Namun dalam penelitian ini menunjukkan bahwa tidak ada hubungan antara tingkat keparahan dengan perilaku pap smear.

Secara keseluruhan, dari hasil penelitian ini terdapat tiga variabel yang secara bersama-sama mempengaruhi perilaku pap smear yaitu usia, tingkat ketakutan dan kerentanan. Usia merupakan faktor yang paling mempengaruhi perilaku pap smear.

### Simpulan

Ada hubungan yang signifikan antara usia, sikap (tingkat ketakutan) dan kerentanan dengan perilaku pap smear. Faktor yang paling mempengaruhi perilaku pap smear adalah usia bidan. Peningkatan upaya promotif dan motivasi tentang pap smear sejak dini kepada para bidan akan berdampak positif terhadap peningkatan jumlah perilaku pap smear di kalangan bidan dan perempuan pada umumnya karena bidan merupakan salah satu panutan bagi masyarakat khususnya bagi perempuan.

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# **KELENGKAPAN BERKAS**

## **BUKTI KORESPONDENSI ETHICAL CLEARANCE TURNITIN**

Judul artikel


Factor Associated to Pap Smear Cervical Screening  
Behavior among Midwives in Yogyakarta

**BUKTI**  
**KORESPONDENSI**

# BUKTI KORESPONDENSI

## ARTIKEL JURNAL NASIONAL PERINGKAT 3

Judul artikel : Factor Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta  
Jurnal : Jurnal Kebidanan  
Penulis : Niken Meilani (Penulis 1 dan korespondensi)

No	Perihal	Tanggal
1	Submit melalui OJS	13 Oktober 2021
2	Proses Review dan pengembalian revisi	24 Oktober 2021 s.d. 24 Desember 2021
	 <p>The screenshot shows the OJS interface for article 6773. It includes sections for 'Submission' (Authors: Niken Meilani, Nanik Setiyawati; Title: Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia; Section: Articles; Editor: Rizky Amelia, SST.MKes), 'Peer Review' (Round 1: Review Version 6773-20429-1-RV.DOC 2021-03-23, Initiated 2021-10-13, Last modified 2022-04-07, Uploaded file: Reviewer A 6773-25371-1-RV.DOCX 2022-04-07, Reviewer B 6773-23167-1-RV.DOC 2021-10-24), and 'Editor Decision' (Decision: Accept Submission 2021-12-30; Notify Editor: Editor/Author Email Record 2022-03-14; Editor Version: 6773-22652-1-ED.DOC 2021-09-07, 6773-22652-2-ED.DOCX 2021-09-24, 6773-22652-4-ED.DOCX 2022-04-08; Author Version: 6773-22658-1-ED.DOCX 2021-09-07 (DELETE), 6773-22658-2-ED.DOCX 2021-12-20 (DELETE), 6773-22658-3-ED.DOCX 2021-12-24 (DELETE), 6773-22658-4-ED.DOCX 2021-12-24 (DELETE); Upload Author Version: Choose File No file chosen Upload).</p>	
3	Naskah diterima	30 Desember 2021

## **MASUKAN DARI REVIEWER:**

### **Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia**

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Received: written by editor; Revised: written by editor; Accepted: written by editor  
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#### **ABSTRACT**

Cervical cancer was the fourth most frequent cancer and approximately 90% of death occurred in low- and middle-income countries. Indonesia was the second country which has the most cervical cancer cases in the world. One recommended method of cervical cancer screening was pap smear test. This study aims to determine the factors that associated in midwife's pap smear behavior. This study used a quantitative cross-sectional design. Subjects were 65 midwives in primary health care in Yogyakarta City. Combination Theory used Precede and Procede and Health Belief Model. This research analysis used univariate, bivariate and multivariate analysis. The results showed that there were 61.5% of midwives have did implementation of pap smear. There was a relationship between age ( $p=0.002$ ), attitude ( $p=0.028$ ), cost ( $p=0.208$ ) and vulnerability ( $p=0.001$ ) with pap smear behavior. There was no correlation between value ( $p=0.724$ ), benefit ( $p=0.403$ ) and severity ( $p=0.813$ ) with pap smear behavior. Multivariate analysis showed that age was the most dominant factors affecting pap smear behavior ( $p$ -value 0.009; PR 26.903; CI 95% 2.251-321.490). Need to improved promotive efforts about pap smear among midwives and also women in general.

Keywords : Midwives; screening; cervical cancer; age

## Introduction

In 2018, cervical cancer is the fourth most frequent cancer in women with an estimated 570 000 new cases, representing 6.6% of all female cancers. Around 90% of deaths from cervical cancer occurred in low- and middle-income countries [1]. Indonesia is the second country in the world has the most cervical cancer [2]. Based on Ministry of Health data in 2015, on average every hour the number of cervical cancers increased by 2.5 people and 1.1 women died of cervical cancer. The cervical cancer prevalence and estimation in 2013 in Indonesia was 0.8‰ with an estimated total of 98.692 cases. Yogyakarta Special Region is one of three provinces which have the highest prevalence of cervical cancer which is 1.5% with a total of 2703 cases [3].

The high mortality rate from cervical cancer globally could be reduced through a comprehensive approach that includes prevention, early diagnosis, effecting screening and treatment programmes [1]. The most common form of cervical cancer starts with pre-cancerous changes, and there are ways to stop this disease from developing. The first way is to find and treat pre-cancers before they become true cancers and the second is to prevent the pre-cancers. If pre-cancer is found, it can be treated, stopping cervical cancer before it really starts. Screening for cervical cancer which is known as the pap smear test is an effective method for early detection of cervical cancer. The pap test is procedure used to collect cells from the cervix so that they can be looked at under a microscope to find cancer and pre-cancer. Most invasive cervical cancers are found in women who have not had regular pap test [4].

The Indonesian government is optimizing the cervical cancer early detection program to improve the implementation of prevention and early detection of cancer in women in Indonesia by facilitating free pap smear examinations using national health insurance (BPJS Kesehatan) [5]. Unfortunately, there are still many women who do not screen cervical cancer even though there has been a program from the government. Based on research from Sari, the majority of motivations for women of childbearing age to make early detection of cervical cancer are very low (60.0%) and as many as 54.0% of respondents have never done pap smear [6]. In another study conducted by Kusumaningrum stated that most women of childbearing age (61.1%) in Pancuran, Bantul did not support pap smear examination [7].

The implementation of early detection of cervical cancer is carried out by authorized health personnel, including midwives [8]. As a health worker, the midwife profession should be a role model for the community to conduct cancer screening as early as possible. However, the research conducted by Syaiful stated that the phenomenon that occurred was that the profession of midwives was disobedient to carry out pap smears even though they had good knowledge about cervical cancer and the pap smear examination process [9].

Midwives as health workers should be a role model for the community. One of the Midwives task especially in terms of prevention that is cervical cancer with early detection. This study aimed to determine the factors that affecting midwives in behavior of cervical cancer prevention with pap smear test.

## Methods

This research was a quantitative cross-sectional study. This subject was 65 midwives in 14 primary health care in Yogyakarta. Subject chosen by random sampling. Sample calculation for minimum sample size used Lemeshow formula. All the subject voluntary participate for this study by sign in the informed consent.

This study used the theoretical framework approach combination of Precede-Proceed model (Lawrence Green) on variables attitude and value (ashamed) and Health Belief Model consist of Severity, Vulnerability, Cost and benefits. The independent variables for this study consist of midwives' age, attitude towards pap smear behavior, severity level, midwives' vulnerability, cost level of pap smear test, benefit level of pap smear test. The dependent variable was pap smear behavior in midwives. This study measured by questionnaire about midwives' attitude (feel from fears), value (feel ashamed), severity level, midwives' vulnerability about cervical cancer and cost and benefit level of pap smear test behavior used visual analog scale from 0 up to 10. 0 refers to negative and 10 refers to positive.

Categorized for each variable depend on the normality data. Categorized by means for normal data and median used for didn't normal data. Aged categorized to less and more 35 years old, attitude and value towards pap smear categorized to positive and negative, cost categorized to affordable and not affordable, benefit categorized to not useful and useful, severity categorized to not severe and quite severe, vulnerability categorized to not risky and risky and pap smear behavior categorized to yes and no. Analysis

used univariable analysis to describe frequency distribution, bivariable analysis used chi square test, while multivariable analysis used logistic regression for all variable with  $p < 0.25$ .

### Results and Discussion

Distribution of frequency both dependent and independent variabel such as of midwives' age, attitude towards pap smear behavior, severity level, midwives' vulnerability, cost level of pap smear test, benefit level of pap smear test showed in table 1.

Table 1. Univariate analysis Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variable	n = 65	%
Age		
<35 years old	26	40.0
>35 years old	39	60.0
Attitude towards pap smear behavior		
Positive	32	49.2
Negative'	33	50.8
Value towards pap smear behavior		
Positive	32	49.2
Negative	33	50.8
Cost towards pap smear		
Affordable	30	46.2
Not affordable	35	53.8
Benefit towards pap smear		
Not useful	27	41.5
Useful	38	58.5
Severity towards cervical cancer		
Not severe	35	53.8
Quite severe	30	46.2
Vulnerability towards cervical cancer		
Low risk	27	41.5
Hig risk	38	58.5
Pap Smear Behavior		
No	25	38.5
Yes	40	61.5

Based on table 1, the results of this study showed that majority of respondents were more than 35 years old (60.0%). The majority subject had negative attitude (50.8%), had high negative value on pap smear test (50.8%). The majority subject claimed that pap smear test was not affordable (53.8%) but that was useful (58.5%). Majority the responden claimed that cervical cancer was not severe disease (53.8%), and majority subject claim that they were low risk for cervical cancer (41.5%) and had pap smear test behavior (61.5%).

Table 2. Bivariable Analysis of Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

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Variables	Pap Smear Behavior				Total		p
	No		Yes		n	%	
	n	%	n	%	n	%	
Age							
<35 years old	16	61.5	10	38.5	26	100	0.002
>35 years old	9	23.1	30	76.9	39	100	
Total	25	38.5	40	61.5	65	100	
Attitude towards pap smear behavior							
Positive	8	25.0	24	75.0	32	100	0.028
Negative	17	51.5	16	48.5	33	100	
Total	25	38.5	40	61.5	65	100	
Value towards pap smear behavior							
Positive	13	40.6	19	59.4	32	100	0.724
Negative	12	36.4	21	63.6	33	100	
Total	25	38.5	40	61.5	65	100	
Cost towards pap smear							
Affordable	14	46.7	16	53.3	30	100	0.208
Not Affordable	11	31.4	24	68.6	35	100	
Total	25	38.5	40	61.5	65	100	
Benefit towards pap smear							
Not useful	12	44.4	15	55.6	27	100	0.403
Useful	13	34.2	25	65.8	38	100	
Total	25	38.5	40	61.5	65	100	
Severity towards cervical cancer							
Not severe	13	37.1	22	62.9	35	100	0.813
Quite severe	12	40.0	18	60.0	30	100	
Total	25	38.5	40	61.5	65	100	
Vulnerability towards cervical cancer							
Low Risk	25	65.8	13	34.2	38	100	0.001
High risk	0	0.0	27	100.0	27	100	
Total	25	38.5	40	61.5	65	100	

Based on age variable, the results showed that the dominating were respondents more than 35 years old and had pap smear behavior were 30 respondents (76.9%). The respondents with positive attitude and had pap smear behavior were 24 respondents (75.0%). This percentage was greater than the respondents with negative attitude and had no pap smear behavior which amounted to 17 respondents (51.5%). The respondents with negative value and had pap smear behavior had larger number of 21 respondents (63.6%) than the respondents who had no pap smear behavior. Based on the variable of cost level, the results showed that the dominant were respondents who said that pap smear test was expensive and had pap smear behavior were 24 respondents (68.6%). Based on benefit level variable, the results showed that the dominant were respondent who said that pap smear was useful and had pap smear behavior were 25 respondents (65.8%). Meanwhile respondents who did not severe and had no pap smear behavior were 22 respondents (62.9%). Based on vulnerability variable, the dominant were risky respondents and had pap smear behavior were 27 respondents (100.0%).

The chi square analysis showed that there was significant relationship between age and vulnerability with pap smear behavior (p-value <0.05). The results of chi square analysis showed that there was no significant relationship between attitude, value, cost, benefit and severity with pap smear behavior. In multivariable analysis, the qualified variables for logistic regression test were age, attitude, cost and vulnerability.





Table 3. Results of Multivariable Analysis of Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variable	P value	Exp (B)	95% CI for EXP(B)	
			Lower	Upper
Age	0.009	26.903	2.251	321.490
Attitude	0.030	12.572	1.281	123.408

Based on table 3, the results of the analysis showed that the most factor that influence pap smear behavior was age which had p-value 0.009 with PR= 26.903 (95% CI 2.251-321.490). This showed that midwives less than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Previous research showed that relationship between age and participation in pap smear test has been recognized in several studies (p<0.05), showing that the percentages of cervical cancer screening vary by age. As women get older, they are most likely to do a pap smear test. [10-12].

The other factor affecting pap smear behavior was attitude with p-value 0.03 PR = 12.572 (95% CI 1.281-123.408). Midwives who had negative attitude were at risk of having less pap smear behavior 12.572 times greater than midwives with positive attitude. Attitude was variables that significant to pap smear behavior.

The results of this study showed significant results between maternal age and Pap smear behavior p-value <0.02. Older midwives decided to papsmeared because the risk. Different with previous research conducted by Dewi Suryani et al and Dwika Gustiana et al which stated there was no relationship between age and Pap smear behavior [13-14].

The results of this study were in line with research conducted by Ncube et al which indicated a significant relationship between attitude (feel of fear) and pap smear behavior (p-value <0.05) [15]. Many researchers found that fear of being diagnosed with cervical cancer, abdominal pain after pap smear, and uncomfortable feeling during the test can have a negative effect on women getting a pap test [16-18].

Based on vulnerability variable, the statistical results in this study showed that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.001 (p-value <0.05). It supported by the result of the research from Rachmawati which stated that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.01 (p-value <0.01) [19]. The result of this study also supported by Karimy et al's research that stated there was significant relationship between susceptibility (vulnerability) with pap smear behavior[20].

Perceived vulnerability is a person's subjective perception of the risk of getting an illness. Someone will act to treat or prevent disease if they feel vulnerable to the attack of the disease. The vulnerability of each women is different depending on the individual risk that is felt from a particular situation. If a woman feels vulnerability, the woman will intend to do a pap smear. This is because they feel vulnerable to cervical cancer so they want to prevent disease. While the perception of vulnerability of women is not enough to make women insensitive to the risk of getting a disease, so they are not active in doing prevention with pap smear [21].

Another factors that influences pap smear behavior are value (shame level), cost level, benefit level and severity level. But in this study showed that there were no significant relationship between cost level, benefit level and severity level with pap smear behavior (p-value >0.05). The results of this study were in line with the research conducted by Cholifah et al which stated that there was no relationship between shame level and pap smear behavior [22]. But the other research shows the opposite. A research by Suantika et al stated that women often complain of feeling embarrassed so that women rarely want to do pap smears, like midwives. Feeling embarrassed because a direct examination of an intimate organ makes it a major obstacle to his participation in pap smears [23].

A study conducted by Ashtarian et al stated that although the low-cost of and accessibility to pap test could be perceived as facilitators, the results showed that easy and affordable access to pap test was worthless for women [24]. But this results was different with a study conduct by Kim which stated that cost level had relationship with pap smear behavior [25].

In the other study conducted by McFarland stated that there was no relationship between benefit and severity level with pap smear behavior. Based on benefit and severity level variable, midwives who had ever had pap smear and midwives who had never had pap smear were very similar [26]. This findings are incosistens with earlier finding [27]. Severity that is felt is a person's perception of the severity of the disease suffered. someone's actions to seek treatment and prevention of disease are driven by the threat of

the diseases [21]. But in this study showed that there was no relationship between the severity and behavior of pap smear. Overall, from the results of this study, there were three variables that jointly affecting pap smear behavior, namely age, level of fear and vulnerability. Age was the most factor that affecting pap smear behavior.

### Conclusion

There were significant relationship between age, attitude (level of fear) and vulnerability with pap smear behavior. The most factor that influence pap smear behavior is age. Midwives than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Improved promotive efforts and motivation about pap smear earlier to modwives will have positive impact on improving the amount of pap smear behavior among midwives and women in general because midwife is one of role model for the community, especially for women.

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## Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

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### ABSTRACT

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The Indonesian government is optimizing the cervical cancer early detection program to improve the implementation of prevention and early detection of cancer in women in Indonesia by facilitating free pap smear examinations using national health insurance (BPJS Kesehatan).<sup>5</sup> Unfortunately, there are still many women who do not screen cervical cancer even though there has been a program from the government. Based on research from Sari, the majority of motivations for women of childbearing age to make early detection of cervical cancer are very low (60.0%) and as many as 54.0% of respondents have

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### Methods

This research was a quantitative cross-sectional study. This subject was 65 midwives in 14 primary health care in Yogyakarta. Subject chosen by random sampling. Sample calculation for minimum sample size used Lemeshow formula. All the subject voluntary participate for this study by sign in the informed consent.

This study used the theoretical framework approach combination of Precede-Proceed model (Lawrence Green) on variables attitude and value (ashamed) and Health Belief Model consist of Severity, Vulnerability, Cost and benefits. The independent variables for this study consist of midwives' age, attitude towards pap smear behavior, severity level, midwives' vulnerability, cost level of pap smear test, benefit level of pap smear test. The dependent variable was pap smear behavior in midwives. This study measured by questionnaire about midwives' attitude (feel from fears), value (feel ashamed), severity level, midwives' vulnerability about cervical cancer and cost and benefit level of pap smear test behavior used visual analog scale from 0 up to 10. 0 refers to negative and 10 refers to positive.

Categorized for each variable depend on the normality data. Categorized by means for normal data and median used for didn't normal data. Aged categorized to less and more 35 years old, attitude and value towards pap smear categorized to positive and negative, cost categorized to affordable and not affordable, benefit categorized to not useful and useful, severity categorized to not severe and quite severe, vulnerability categorized to not risky and risky and pap smear behavior categorized to yes and no. Analysis used univariable analysis to describe frequency distribution, bivariable analysis used chi square test, while multivariable analysis used logistic regression for all variable with  $p < 0.25$ .

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### Results

Distribution of frequency both dependent and independent variabel such as of midwives' age, attitude towards pap smear behavior, severity level, midwives' vulnerability, cost level of pap smear test, benefit level of pap smear test showed in table 1.

Table 1. Univariate analysis Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variable	n = 65	%
Age		
<35 years old	26	40.0
>35 years old	39	60.0
Attitude towards pap smear behavior		
Positive	32	49.2
Negative	33	50.8
Value towards pap smear behavior		
Positive	32	49.2
Negative	33	50.8

Variable	n = 65	%
Cost towards pap smear		
Affordable	30	46.2
Not affordable	35	53.8
Benefit towards pap smear		
Not useful	27	41.5
Useful	38	58.5
Severity towards cervical cancer		
Not severe	35	53.8
Quite severe	30	46.2
Vulnerability towards cervical cancer		
Low risk	38	58.5
Hig risk	27	41.5
Pap Smear Behavior		
No	25	38.5
Yes	40	61.5

Based on table 1, the results of this study showed that majority of respondents were more than 35 years old (60.0%). The majority subject had negative attitude (50.8%), had high negative value on pap smear test (50.8%). The majority subject claimed that pap smear test was not affordable (53.8%) but that was useful (58.5%). Majority the responden claimed that cervical cancer was not severe disease (53.8%), and majority subject claim that they were low risk for cervical cancer (58.5%) and had pap smear test behavior (61.5%).

Table 2. Bivariable Analysis of Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variables	Pap Smear Behavior				Total		p-value
	No		Yes		n	%	
	n	%	n	%	n	%	
Age							
<35 years old	16	61.5	10	38.5	26	100	0.002
>35 years old	9	23.1	30	76.9	39	100	
Total	25	38.5	40	61.5	65	100	
Attitude towards pap smear behavior	8	25.0	24	75.0	32	100	0.028
Positive	17	51.5	16	48.5	33	100	
Negative	25	38.5	40	61.5	65	100	
Value towards pap smear behavior	13	40.6	19	59.4	32	100	0.724
Positive	12	36.4	21	63.6	33	100	
Negative	25	38.5	40	61.5	65	100	
Cost towards pap smear							
Affordable	14	46.7	16	53.3	30	100	0.208
Not Affordable	11	31.4	24	68.6	35	100	

Variables	Pap Smear Behavior				Total		p-value
	No		Yes		n	%	
Total	25	38.5	40	61.5	65	100	
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Not useful	12	44.4	15	55.6	27	100	0.403
Useful	13	34.2	25	65.8	38	100	
Total	25	38.5	40	61.5	65	100	
Severity towards cervical cancer							
Not severe	12	40.0	18	60.0	30	100	0.813
Quite severe							
Total	25	38.5	40	61.5	65	100	
Vulnerability towards cervical cancer							
Low Risk	0	0.0	27	100.0	27	100	0.001
High risk							
Total	25	38.5	40	61.5	65	100	

Based on age variable, the results showed that the dominating were respondents more than 35 years old and had pap smear behavior were 30 respondents (76.9%). The respondents with positive attitude and had pap smear behavior were 24 respondents (75.0%). This percentage was greater than the respondents with negative attitude and had no pap smear behavior which amounted to 17 respondents (51.5%). The respondents with negative value and had pap smear behavior had larger number of 21 respondents (63.6%) than the respondents who had no pap smear behavior. Based on the variable of cost level, the results showed that the dominant were respondents who said that pap smear test was expensive and had pap smear behavior were 24 respondents (68.6%). Based on benefit level variable, the results showed that the dominant were respondent who said that pap smear was useful and had pap smear behavior were 25 respondents (65.8%). Meanwhile respondents who did not severe and had no pap smear behavior were 22 respondents (62.9%). Based on vulnerability variable, the dominant were risky respondents and had pap smear behavior were 27 respondents (100.0%).

The chi square analysis showed that there was significant relationship between age and vulnerability with pap smear behavior (p-value <0.05). The results of chi square analysis showed that there was no significant relationship between attitude, value, cost, benefit and severity with pap smear behavior. In multivariable analysis, the qualified variables for logistic regression test were age, attitude, cost and vulnerability.

Table 3. Results of Multivariable Analysis of Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variable	p value	Exp(B)	95% CI for EXP(B)	
			Lower	Upper
Age	0.009	26.903	2.251	321.490
Attitude	0.030	12.572	1.281	123.408

Based on table 3, the results of the analysis showed that the most factor that influence pap smear behavior was age which had p-value 0.009 with PR= 26.903 (95% CI 2.251-321.490). This showed that midwives less than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Previous research showed that relationship between age and participation in pap smear test has been recognized in several studies (p<0.05), showing that the percentages of cervical cancer screening vary by age. As women get older, they are most likely to do a pap smear test.<sup>10-12</sup>

The other factor affecting pap smear behavior was attitude with p-value 0.03 PR = 12.572 (95% CI 1.281-123.408). Midwives who had negative attitude were at risk of having less pap smear behavior 12.572 times greater than midwives with positive attitude. Attitude was variables that significant to pap smear behavior.

## Discussion

The results of this study showed significant results between maternal age and Pap smear behavior p-value <0.02. Older midwives decided to papsmear because the risk. Different with previous research conducted by Dewi Suryani et al and Dwika Gustiana et al which stated there was no relationship between age and Pap smear behavior.<sup>13-14</sup>

The results of this study were in line with research conducted by Ncube et al which indicated a significant relationship between attitude (feel of fear) and pap smear behavior (p-value <0.05).<sup>15</sup> Many researchers found that fear of being diagnosed with cervical cancer, abdominal pain after pap smear, and uncomfortable feeling during the test can have a negative effect on women getting a pap test.<sup>16-18</sup>

Based on vulnerability variable, the statistical results in this study showed that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.001 (p-value <0.05). It supported by the result of the research from Rachmawati which stated that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.01 (p-value <0.01).<sup>19</sup> The result of this study also supported by Karimy et al's research that stated there was significant relationship between susceptibility (vulnerability) with pap smear behavior.<sup>20</sup>

Perceived vulnerability is a person's subjective perception of the risk of getting an illness. Someone will act to treat or prevent disease if they feel vulnerable to the attack of the disease. The vulnerability of each women is different depending on the individual risk that is felt from a particular situation. If a woman feels vulnerability, the woman will intend to do a pap smear. This is because they feel vulnerable to cervical cancer so they want to prevent disease. While the perception of vulnerability of women is not enough to make women insensitive to the risk of getting a disease, so they are not active in doing prevention with pap smear.<sup>21</sup>

Another factors that influences pap smear behavior are value (shame level), cost level, benefit level and severity level. But in this study showed that there were no significant relationship between cost level, benefit level and severity level with pap smear behavior (p-value >0.05). The results of this study were in line with the research conducted by Cholifah et al which stated that there was no relationship between shame level and pap smear behavior.<sup>22</sup> But the other research shows the opposite. A research by Suantika et al stated that women often complain of feeling embarrassed so that women rarely want to do pap smears, like midwives. Feeling embarrassed because a direct examination of an intimate organ makes it a major obstacle to his participation in pap smears.<sup>23</sup>

A study conducted by Ashtarian et al stated that although the low-cost of and accessibility to pap test could be perceived as facilitators, the results showed that easy and affordable access to pap test was worthless for women.<sup>24</sup> But this results was different with a study conduct by Kim which stated that cost level had relationship with pap smear behavior.<sup>25</sup>

In the other study conducted by McFarland stated that there was no relationship between benefit and severity level with pap smear behavior. Based on benefit and severity level variable, midwives who had ever had pap smear and midwives who had never had pap smear were very similar.<sup>26</sup> This findings are incosistens with earlier finding.<sup>27</sup> Severity that is felt is a person's perception of the severity of the disease suffered. someone's actions to seek treatment and prevention of disease are driven by the threat of the diseases.<sup>21</sup> But in this study showed that there was no relationship between the severity and behavior of pap smear. Overall, from the results of this study, there were three variables that jointly affecting pap smear behavior, namely age, level of fear and vulnerability. Age was the most factor that affecting pap smear behavior.

## Conclusion

There were significant relationship between age, attitude (level of fear) and vulnerability with pap smear behavior. The most factor that influence pap smear behavior is age. Midwives than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Improved

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promotive efforts and motivation about pap smear earlier to midwives will have positive impact on improving the amount of pap smear behavior among midwives and women in general because midwife is one of role model for the community, especially for women.

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# MASUKAN DARI EDITOR

## Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

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### ABSTRACT

Cervical cancer was the fourth most frequent cancer and approximately 90% of death occurred in low- and middle-income countries. Indonesia was the second country which has the most cervical cancer cases in the world. One recommended method of cervical cancer screening was pap smear test. This study aims to determine the factors that associated in midwife's pap smear behavior. This study used a quantitative cross-sectional design. Subjects were 65 midwives in primary health care in Yogyakarta City. Combination Theory used Precede and Procede and Health Belief Model. This research analysis used univariate, bivariate and multivariate analysis. The results showed that there were 61.5% of midwives have did implementation of pap smear. There was a relationship between age ( $p=0.002$ ), attitude ( $p=0.028$ ), cost ( $p=0.208$ ) and vulnerability ( $p=0.001$ ) with pap smear behavior. There was no correlation between value ( $p=0.724$ ), benefit ( $p=0.403$ ) and severity ( $p=0.813$ ) with pap smear behavior. Multivariate analysis showed that age was the most dominant factors affecting pap smear behavior ( $p$ -value 0.009; PR 26.903; CI 95% 2.251-321.490). Need to improved promotive efforts about pap smear among midwives and also women in general.

**Keywords:** Midwife, screening, cervical cancer, age

### Introduction

In 2018, cervical cancer is the fourth most frequent cancer in women with an estimated 570 000 new cases, representing 6.6% of all female cancers. Around 90% of deaths from cervical cancer occurred in low- and middle-income countries.<sup>1</sup> Indonesia is the second country in the world has the most cervical cancer.<sup>2</sup> Based on Ministry of Health data in 2015, on average every hour the number of cervical cancers increased by 2.5 people and 1.1 women died of cervical cancer. The cervical cancer prevalence and estimation in 2013 in Indonesia was 0.8‰ with an estimated total of 98.692 cases. Yogyakarta Special Region is one of three provinces which have the highest prevalence of cervical cancer which is 1.5% with a total of 2703 cases.<sup>3</sup>

The high mortality rate from cervical cancer globally could be reduced through a comprehensive approach that includes prevention, early diagnosis, effecting screening and treatment programmes.<sup>1</sup> The most common form of cervical cancer starts with pre-cancerous changes, and there are ways to stop this disease from developing. The first way is to find and treat pre-cancers before they become true cancers and the second is to prevent the pre-cancers. If pre-cancer is found, it can be treated, stopping cervical cancer before it really starts. Screening for cervical cancer which is known as the pap smear test is an effective method for early detection of cervical cancer. The pap test is procedure used to collect cells from the cervix so that they can be looked at under a microscope to find cancer and pre-cancer. Most invasive cervical cancers are found in women who have not had regular pap test.<sup>4</sup>

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The Indonesian government is optimizing the cervical cancer early detection program to improve the implementation of prevention and early detection of cancer in women in Indonesia by facilitating free pap smear examinations using national health insurance (BPJS Kesehatan).<sup>5</sup> Unfortunately, there are still many women who do not screen cervical cancer even though there has been a program from the government. Based on research from Sari, the majority of motivations for women of childbearing age to make early detection of cervical cancer are very low (60.0%) and as many as 54.0% of respondents have never done pap smear.<sup>6</sup> In another study conducted by Kusumaningrum stated that most women of childbearing age (61.1%) in Pancuran, Bantul did not support pap smear examination.<sup>7</sup>

The implementation of early detection of cervical cancer is carried out by authorized health personnel, including midwives.<sup>8</sup> As a health worker, the midwife profession should be a role model for the community to conduct cancer screening as early as possible. However, the research conducted by Syaiful stated that the phenomenon that occurred was that the profession of midwives was disobedient to carry out pap smears even though they had good knowledge about cervical cancer and the pap smear examination process.<sup>9</sup>

Midwives as health workers should be a role model for the community. One of the Midwives task especially in terms of prevention that is cervical cancer with early detection. This study aimed to determine the factors that affecting midwives in behavior of cervical cancer prevention with pap smear test.

#### Methods

This research was a quantitative cross-sectional study. This subject was 65 midwives in 14 primary health care in Yogyakarta. Subject chosen by random sampling. Sample calculation for minimum sample size used Lemeshow formula. All the subject voluntary participate for this study by sign in the informed consent.

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The other factor affecting pap smear behavior was attitude with p-value 0.03 PR = 12.572 (95% CI 1.281-123.408). Midwives who had negative attitude were at risk of having less pap smear behavior 12.572 times greater than midwives with positive attitude. Attitude was variables that significant to pap smear behavior.

### Discussion

The results of this study showed significant results between maternal age and Pap smear behavior p-value  $< 0.02$ . Older midwives decided to papsmear because the risk. Different with previous research conducted by Dewi Suryani et al and Dwika Gustiana et al which stated there was no relationship between age and Pap smear behavior.<sup>13-14</sup>

The results of this study were in line with research conducted by Ncube et al which indicated a significant relationship between attitude (feel of fear) and pap smear behavior (p-value  $< 0.05$ ).<sup>15</sup> Many researchers found that fear of being diagnosed with cervical cancer, abdominal pain after pap smear, and uncomfortable feeling during the test can have a negative effect on women getting a pap test.<sup>16-18</sup>

Based on vulnerability variable, the statistical results in this study showed that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.001 (p-value  $< 0.05$ ). It supported by the result of the research from Rachmawati which stated that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.01 (p-value  $< 0.01$ ).<sup>19</sup> The result of this study also supported by Karimy et al's research that stated there was significant relationship between susceptibility (vulnerability) with pap smear behavior.<sup>20</sup>

Perceived vulnerability is a person's subjective perception of the risk of getting an illness. Someone will act to treat or prevent disease if they feel vulnerable to the attack of the disease. The vulnerability of each women is different depending on the individual risk that is felt from a particular situation. If a woman feels vulnerability, the woman will intend to do a pap smear. This is because they feel vulnerable to cervical cancer so they want to prevent disease. While the perception of vulnerability of women is not enough to make women insensitive to the risk of getting a disease, so they are not active in doing prevention with pap smear.<sup>21</sup>

Another factors that influences pap smear behavior are value (shame level), cost level, benefit level and severity level. But in this study showed that there were no significant relationship between cost level, benefit level and severity level with pap smear behavior (p-value  $> 0.05$ ). The results of this study were in line with the research conducted by Cholifah et al which stated that there was no relationship between shame level and pap smear behavior.<sup>22</sup> But the other research shows the opposite. A research by Suantika et al stated that women often complain of feeling embarrassed so that women rarely want to do pap smears, like midwives. Feeling embarrassed because a direct examination of an intimate organ makes it a major obstacle to his participation in pap smears.<sup>23</sup>

A study conducted by Ashtarian et al stated that although the low-cost of and accessibility to pap test could be perceived as facilitators, the results showed that easy and affordable access to pap test was worthless for women.<sup>24</sup> But this results was different with a study conduct by Kim which stated that cost level had relationship with pap smear behavior.<sup>25</sup>

In the other study conducted by McFarland stated that there was no relationship between benefit and severity level with pap smear behavior. Based on benefit and severity level variable, midwives who had ever had pap smear and midwives who had never had pap smear were very similar.<sup>26</sup> This findings are incosistens with earlier finding.<sup>27</sup> Severity that is felt is a person's perception of the severity of the disease suffered. someone's actions to seek treatment and prevention of disease are driven by the threat of the diseases.<sup>21</sup> But in this study showed that there was no relationship between the severity and behavior of pap smear. Overall, from the results of this study, there were three variables that jointly

affecting pap smear behavior, namely age, level of fear and vulnerability. Age was the most factor that affecting pap smear behavior.

#### Conclusion

There were significant relationship between age, attitude (level of fear) and vulnerability with pap smear behavior. The most factor that influence pap smear behavior is age. Midwives than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Improved promotive efforts and motivation about pap smear earlier to modwives will have positive impact on improving the amount of pap smear behavior among midwives and women in general because midwife is one of role model for the community, especially for women.

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## **Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia**

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### **ABSTRACT**

Cervical cancer was the fourth most frequent cancer and approximately 90% of death occurred in low- and middle-income countries. Indonesia was the second country which has the most cervical cancer cases in the world. One recommended method of cervical cancer screening was pap smear test. This study aims to determine the factors that associated in midwife's pap smear behavior. This study used a quantitative cross-sectional design. Subjects were 65 midwives in primary health care in Yogyakarta City. Combination Theory used Precede and Procede and Health Belief Model. This research analysis used univariate, bivariate and multivariate analysis. The results showed that there were 61.5% of midwives have did implementation of pap smear. There was a relationship between age ( $p=0.002$ ), attitude ( $p=0.028$ ), cost ( $p=0.208$ ) and vulnerability ( $p=0.001$ ) with pap smear behavior. There was no correlation between value ( $p=0.724$ ), benefit ( $p=0.403$ ) and severity ( $p=0.813$ ) with pap smear behavior. Multivariate analysis showed that age was the most dominant factors affecting pap smear behavior ( $p$ -value 0.009; PR 26.903; CI 95% 2.251-321.490). Need to improved promotive efforts about pap smear among midwives and also women in general.

Keywords : Midwives; screening; cervical cancer; age

## Introduction

In 2018, cervical cancer is the fourth most frequent cancer in women with an estimated 570 000 new cases, representing 6.6% of all female cancers. Around 90% of deaths from cervical cancer occurred in low- and middle-income countries [1]. Indonesia is the second country in the world has the most cervical cancer [2]. Based on Ministry of Health data in 2015, on average every hour the number of cervical cancers increased by 2.5 people and 1.1 women died of cervical cancer. The cervical cancer prevalence and estimation in 2013 in Indonesia was 0.8‰ with an estimated total of 98.692 cases. Yogyakarta Special Region is one of three provinces which have the highest prevalence of cervical cancer which is 1.5% with a total of 2703 cases [3].

The high mortality rate from cervical cancer globally could be reduced through a comprehensive approach that includes prevention, early diagnosis, effecting screening and treatment programmes [1]. The most common form of cervical cancer starts with pre-cancerous changes, and there are ways to stop this disease from developing. The first way is to find and treat pre-cancers before they become true cancers and the second is to prevent the pre-cancers. If pre-cancer is found, it can be treated, stopping cervical cancer before it really starts. Screening for cervical cancer which is known as the pap smear test is an effective method for early detection of cervical cancer. The pap test is procedure used to collect cells from the cervix so that they can be looked at under a microscope to find cancer and pre-cancer. Most invasive cervical cancers are found in women who have not had regular pap test [4].

The Indonesian government is optimizing the cervical cancer early detection program to improve the implementation of prevention and early detection of cancer in women in Indonesia by facilitating free pap smear examinations using national health insurance (BPJS Kesehatan) [5]. Unfortunately, there are still many women who do not screen cervical cancer even though there has been a program from the government. Based on research from Sari, the majority of motivations for women of childbearing age to make early detection of cervical cancer are very low (60.0%) and as many as 54.0% of respondents have never done pap smear [6]. In another study conducted by Kusumaningrum stated that most women of childbearing age (61.1%) in Pancuran, Bantul did not support pap smear examination [7].

The implementation of early detection of cervical cancer is carried out by authorized health personnel, including midwives [8]. As a health worker, the midwife profession should be a role model for the community to conduct cancer screening as early as possible. However, the research conducted by Syaiful stated that the phenomenon that occurred was that the profession of midwives was disobedient to carry out pap smears even though they had good knowledge about cervical cancer and the pap smear examination process [9].

Midwives as health workers should be a role model for the community. One of the Midwives task especially in terms of prevention that is cervical cancer with early detection. This study aimed to determine the factors that affecting midwives in behavior of cervical cancer prevention with pap smear test.

## Methods

This research was a quantitative cross-sectional study. This subject was 65 midwives in 14 primary health care in Yogyakarta. Subject chosen by random sampling. Sample calculation for minimum sample size used Lemeshow formula. All the subject voluntary participate for this study by sign in the informed consent.

This study used the theoretical framework approach combination of Precede-Proceed model (Lawrence Green) on variables attitude and value (ashamed) and Health Belief Model consist of Severity, Vulnerability, Cost and benefits. The independent variables for this study consist of midwives' age, attitude towards pap smear behavior, severity level, midwives' vulnerability, cost level of pap smear test, benefit level of pap smear test. The dependent variable was pap smear behavior in midwives. This study measured by questionnaire about midwives' attitude (feel from fears), value (feel ashamed), severity level, midwives' vulnerability about cervical cancer and cost and benefit level of pap smear test behavior used visual analog scale from 0 up to 10. 0 refers to negative and 10 refers to positive.

Categorized for each variable depend on the normality data. Categorized by means for normal data and median used for didn't normal data. Aged categorized to less and more 35 years old, attitude and value towards pap smear categorized to positive and negative, cost categorized to affordable and not affordable, benefit categorized to not useful and useful, severity categorized to not severe and quite severe, vulnerability categorized to not risky and risky and pap smear behavior categorized to yes and no. Analysis

used univariable analysis to describe frequency distribution, bivariable analysis used chi square test, while multivariable analysis used logistic regression for all variable with  $p < 0.25$ .

### Results and Discussion

Distribution of frequency both dependent and independent variabel such as of midwives' age, attitude towards pap smear behavior, severity level, midwives' vulnerability, cost level of pap smear test, benefit level of pap smear test showed in table 1.

Table 1. Univariate analysis Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variable	n = 65	%
Age		
<35 years old	26	40.0
>35 years old	39	60.0
Attitude towards pap smear behavior		
Positive	32	49.2
Negative'	33	50.8
Value towards pap smear behavior		
Positive	32	49.2
Negative	33	50.8
Cost towards pap smear		
Affordable	30	46.2
Not affordable	35	53.8
Benefit towards pap smear		
Not useful	27	41.5
Useful	38	58.5
Severity towards cervical cancer		
Not severe	35	53.8
Quite severe	30	46.2
Vulnerability towards cervical cancer		
Low risk	27	41.5
Hig risk	38	58.5
Pap Smear Behavior		
No	25	38.5
Yes	40	61.5

Based on table 1, the results of this study showed that majority of respondents were more than 35 years old (60.0%). The majority subject had negative attitude (50.8%), had high negative value on pap smear test (50.8%). The majority subject claimed that pap smear test was not affordable (53.8%) but that was useful (58.5%). Majority the responden claimed that cervical cancer was not severe disease (53.8%), and majority subject claim that they were low risk for cervical cancer (58.5%) and had pap smear test behavior (61.5%).

Table 2. Bivariable Analysis of Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variables	Pap Smear Behavior				Total		p
	No		Yes		n	%	
	n	%	n	%	n	%	
Age							
<35 years old	16	61.5	10	38.5	26	100	0.002
>35 years old	9	23.1	30	76.9	39	100	
Total	25	38.5	40	61.5	65	100	
Attitude towards pap smear behavior							
Positive	8	25.0	24	75.0	32	100	0.028
Negative	17	51.5	16	48.5	33	100	
Total	25	38.5	40	61.5	65	100	
Value towards pap smear behavior							
Positive	13	40.6	19	59.4	32	100	0.724
Negative	12	36.4	21	63.6	33	100	
Total	25	38.5	40	61.5	65	100	
Cost towards pap smear							
Affordable	14	46.7	16	53.3	30	100	0.208
Not Affordable	11	31.4	24	68.6	35	100	
Total	25	38.5	40	61.5	65	100	
Benefit towards pap smear							
Not useful	12	44.4	15	55.6	27	100	0.403
Useful	13	34.2	25	65.8	38	100	
Total	25	38.5	40	61.5	65	100	
Severity towards cervical cancer							
Not severe	13	37.1	22	62.9	35	100	0.813
Quite severe	12	40.0	18	60.0	30	100	
Total	25	38.5	40	61.5	65	100	
Vulnerability towards cervical cancer							
Low Risk	25	65.8	13	34.2	38	100	0.001
High risk	0	0.0	27	100.0	27	100	
Total	25	38.5	40	61.5	65	100	

Based on age variable, the results showed that the dominating were respondents more than 35 years old and had pap smear behavior were 30 respondents (76.9%). The respondents with positive attitude and had pap smear behavior were 24 respondents (75.0%). This percentage was greater than the respondents with negative attitude and had no pap smear behavior which amounted to 17 respondents (51.5%). The respondents with negative value and had pap smear behavior had larger number of 21 respondents (63.6%) than the respondents who had no pap smear behavior. Based on the variable of cost level, the results showed that the dominant were respondents who said that pap smear test was expensive and had pap smear behavior were 24 respondents (68.6%). Based on benefit level variable, the results showed that the dominant were respondent who said that pap smear was useful and had pap smear behavior were 25 respondents (65.8%). Meanwhile respondents who did not severe and had no pap smear behavior were 22 respondents (62.9%). Based on vulnerability variable, the dominant were risky respondents and had pap smear behavior were 27 respondents (100.0%).

The chi square analysis showed that there was significant relationship between age and vulnerability with pap smear behavior (p-value <0.05). The results of chi square analysis showed that there was no significant relationship between attitude, value, cost, benefit and severity with pap smear behavior. In multivariable analysis, the qualified variables for logistic regression test were age, attitude, cost and vulnerability.



Table 3. Results of Multivariable Analysis of Factors Affecting Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

Variable	P value	Exp (B)	95% CI for EXP(B)	
			Lower	Upper
Age	0.009	26.903	2.251	321.490
Attitude	0.030	12.572	1.281	123.408

Based on table 3, the results of the analysis showed that the most factor that influence pap smear behavior was age which had p-value 0.009 with PR= 26.903 (95% CI 2.251-321.490). This showed that midwives less than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Previous research showed that relationship between age and participation in pap smear test has been recognized in several studies (p<0.05), showing that the percentages of cervical cancer screening vary by age. As women get older, they are most likely to do a pap smear test. [10-12].

The other factor affecting pap smear behavior was attitude with p-value 0.03 PR = 12.572 (95% CI 1.281-123.408). Midwives who had negative attitude were at risk of having less pap smear behavior 12.572 times greater than midwives with positive attitude. Attitude was variables that significant to pap smear behavior.

The results of this study showed significant results between maternal age and Pap smear behavior p-value <0.02. Older midwives decided to papsmeared because the risk. Different with previous research conducted by Dewi Suryani et al and Dwika Gustiana et al which stated there was no relationship between age and Pap smear behavior [13-14].

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Based on vulnerability variable, the statistical results in this study showed that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.001 (p-value <0.05). It supported by the result of the research from Rachmawati which stated that there was a significant relationship between vulnerability and pap smear behavior with p-value 0.01 (p-value <0.01) [19]. The result of this study also supported by Karimy et al's research that stated there was significant relationship between susceptibility (vulnerability) with pap smear behavior[20].

Perceived vulnerability is a person's subjective perception of the risk of getting an illness. Someone will act to treat or prevent disease if they feel vulnerable to the attack of the disease. The vulnerability of each women is different depending on the individual risk that is felt from a particular situation. If a woman feels vulnerability, the woman will intend to do a pap smear. This is because they feel vulnerable to cervical cancer so they want to prevent disease. While the perception of vulnerability of women is not enough to make women insensitive to the risk of getting a disease, so they are not active in doing prevention with pap smear [21].

Another factors that influences pap smear behavior are value (shame level), cost level, benefit level and severity level. But in this study showed that there were no significant relationship between cost level, benefit level and severity level with pap smear behavior (p-value >0.05). The results of this study were in line with the research conducted by Cholifah et al which stated that there was no relationship between shame level and pap smear behavior [22]. But the other research shows the opposite. A research by Suantika et al stated that women often complain of feeling embarrassed so that women rarely want to do pap smears, like midwives. Feeling embarrassed because a direct examination of an intimate organ makes it a major obstacle to his participation in pap smears [23].

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the diseases [21]. But in this study showed that there was no relationship between the severity and behavior of pap smear. Overall, from the results of this study, there were three variables that jointly affecting pap smear behavior, namely age, level of fear and vulnerability. Age was the most factor that affecting pap smear behavior.

### Conclusion

There were significant relationship between age, attitude (level of fear) and vulnerability with pap smear behavior. The most factor that influence pap smear behavior is age. Midwives than 35 years old have pap smear behavior that is less 26.903 greater than midwives more than 35 years old. Improved promotive efforts and motivation about pap smear earlier to modwives will have positive impact on improving the amount of pap smear behavior among midwives and women in general because midwife is one of role model for the community, especially for women.

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**Factors Associated to Pap Smear Cervical Screening Behavior among  
Midwives in Yogyakarta, Indonesia**

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**ABSTRACT**

Cervical cancer was caused approximately 90% of death occurred in low and middle-income countries. Indonesia was the second country which has the most cervical cancer cases in the world. Midwives had a important role for cervical cancer screening ang also as role model in society. Servical cancer screening recommendation was pap smear test. This study aims to determine the factors that associated in midwife's pap smear behavior. This study used a quantitative cross-sectional design. Subjects were 65 midwives in primary health care in Yogyakarta City. Combination Theory used Precede and Procede and Health Belief Model. This research analysis used univariate, bivariate and multivariate analysis. The results showed that there were 61.5% of midwives have did implementation of pap smear. There was a relationship between age ( $p=0.002$ ), attitude ( $p=0.028$ ), cost ( $p=0.208$ ) and vulnerability ( $p=0.001$ ) with pap smear behavior. There was no correlation between value ( $p=0.724$ ), benefit ( $p=0.403$ ) and severity ( $p=0.813$ ) with pap smear behavior. Multivariate analysis showed that age was the most dominant factors affecting pap smear behavior ( $p$ -value 0.009; PR 26.903; CI 95% 2.251-321.490). Need to improved promotive efforts about pap smear among midwives and also women in general.

Keywords : Midwives; screening; cervical cancer; age

## **Pendahuluan**

Kanker serviks menempati urutan keempat kanker tersering pada wanita pada tahun 2018 dengan perkiraan 570.000 kasus baru, mewakili 6,6% dari seluruh kanker wanita. Sekitar 90% kematian akibat kanker serviks terjadi di negara berpenghasilan rendah dan menengah [1]. Indonesia merupakan negara kedua di dunia dengan penderita kanker serviks terbanyak [2]. Berdasarkan data Kementerian Kesehatan tahun 2015, rata-rata setiap jam jumlah penderita kanker serviks meningkat 2,5 orang dan 1,1 wanita meninggal karena kanker serviks. Prevalensi dan estimasi kanker serviks tahun 2013 di Indonesia sebesar 0,8% dengan total estimasi 98,692 kasus. Daerah Istimewa Yogyakarta merupakan salah satu dari tiga provinsi yang memiliki prevalensi kanker serviks tertinggi yaitu 1,5% dengan jumlah 2703 kasus [3].

Tingginya angka kematian akibat kanker serviks secara global dapat dikurangi melalui pendekatan komprehensif yang mencakup pencegahan, diagnosis dini, program skrining dan pengobatan yang efektif [1]. Bentuk paling umum dari kanker serviks dimulai dengan perubahan pra-kanker, dan ada cara untuk menghentikan perkembangan penyakit ini. Cara pertama adalah menemukan dan mengobati pra-kanker sebelum menjadi kanker sejati dan yang kedua adalah mencegah pra-kanker. Jika pra-kanker ditemukan, dapat diobati, menghentikan kanker serviks sebelum benar-benar dimulai. Skrining kanker serviks yang dikenal dengan tes pap smear merupakan metode yang efektif untuk deteksi dini kanker serviks. Tes pap adalah prosedur yang digunakan untuk mengumpulkan sel-sel dari leher rahim sehingga dapat dilihat di bawah mikroskop untuk menemukan kanker dan pra-kanker. Sebagian besar kanker serviks invasif ditemukan pada wanita yang belum menjalani tes pap secara teratur [4].

Pemerintah Indonesia mengoptimalkan program deteksi dini kanker serviks untuk meningkatkan pelaksanaan pencegahan dan deteksi dini kanker pada wanita di Indonesia dengan memfasilitasi pemeriksaan pap smear gratis menggunakan jaminan kesehatan nasional (BPJS Kesehatan). Sayangnya, masih banyak perempuan yang tidak melakukan skrining kanker serviks meski sudah ada program dari pemerintah. Berdasarkan penelitian Sari, mayoritas motivasi wanita usia subur untuk melakukan deteksi dini kanker serviks sangat rendah (60,0%) dan sebanyak 54,0% responden belum pernah melakukan pap smear [6]. Dalam penelitian lain yang dilakukan oleh Kusumaningrum menyatakan bahwa sebagian besar wanita usia subur (61,1%) di Pancuran, Bantul tidak mendukung pemeriksaan pap smear [7].

Pelaksanaan deteksi dini kanker serviks dilakukan oleh tenaga kesehatan yang berwenang, termasuk bidan. Sebagai tenaga kesehatan, profesi bidan harus menjadi panutan bagi masyarakat untuk melakukan skrining kanker sedini mungkin. Namun penelitian yang dilakukan oleh Syaiful menyebutkan bahwa fenomena yang terjadi adalah profesi bidan tidak patuh untuk melakukan pap smear padahal mereka memiliki pengetahuan yang baik tentang kanker serviks dan proses pemeriksaan pap smear.

Bidan sebagai tenaga kesehatan harus menjadi panutan bagi masyarakat. Salah satu tugas Bidan khususnya dalam hal pencegahan yaitu kanker serviks dengan deteksi dini. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi perilaku bidan dalam pencegahan kanker serviks dengan tes pap smear.

## **Metode Penelitian**

Penelitian ini merupakan penelitian kuantitatif dengan pendekatan cross sectional. Subjek penelitian ini adalah 65 bidan di 14 Puskesmas di Yogyakarta. Subyek dipilih secara acak. Perhitungan sampel untuk ukuran sampel minimum menggunakan rumus Lemeshow. Semua subjek sukarela berpartisipasi untuk penelitian ini dengan menandatangani persetujuan. Penelitian ini juga telah mendapatkan persetujuan etik dari Komisi Etik Poltekkes Kemenkes Yogyakarta.

Penelitian ini menggunakan pendekatan kerangka teori kombinasi model Precede-Proceed (Lawrence Green) pada variabel sikap dan nilai (malu) dan Health Belief Model yang terdiri dari Severity, Vulnerability, Cost dan Benefit. Variabel bebas dalam penelitian ini terdiri dari umur bidan, sikap terhadap perilaku pap smear, tingkat keparahan, kerentanan bidan, tingkat biaya tes pap smear, tingkat manfaat tes pap smear. Variabel terikat adalah perilaku pap smear pada bidan. Penelitian ini diukur dengan kuesioner tentang sikap bidan (merasa dari ketakutan), nilai (merasa malu), tingkat keparahan, kerentanan bidan

tentang kanker serviks dan tingkat biaya dan manfaat perilaku tes pap smear menggunakan skala analog visual dari 0 sampai dengan 10. 0 berarti negatif dan 10 berarti positif.

Dikategorikan untuk setiap variabel tergantung pada normalitas data. Dikategorikan menurut cara untuk data normal dan median yang digunakan untuk data tidak normal. Usia dikategorikan kurang dan lebih 35 tahun, sikap dan nilai terhadap pap smear dikategorikan positif dan negatif, biaya dikategorikan terjangkau dan tidak terjangkau, manfaat dikategorikan tidak bermanfaat dan bermanfaat, keparahan dikategorikan tidak parah dan cukup parah, kerentanan dikategorikan tidak berisiko dan berisiko dan perilaku pap smear dikategorikan ya dan tidak. Analisis menggunakan analisis univariat untuk menggambarkan distribusi frekuensi, analisis bivariat menggunakan uji chi square, sedangkan analisis multivariat menggunakan regresi logistik untuk semua variabel dengan  $p < 0,25$ .

### Hasil dan Pembahasan

Distribusi frekuensi baik variabel dependen maupun independen seperti usia bidan, sikap terhadap perilaku pap smear, tingkat keparahan, kerentanan bidan, tingkat biaya tes pap smear, tingkat manfaat tes pap smear ditunjukkan pada tabel 1.

Tabel 1. Analisis univariat Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia

Variabel	n (65)	%
Usia		
<35 tahun	26	40.0
>35 tahun	39	60.0
Sikap terhadap perilaku pap smear		
Positif	32	49.2
Negatif	33	50.8
Nilai terhadap perilaku pap smear		
Positif	32	49.2
Negatif	33	50.8
Biaya untuk pap smear		
Terjangkau	30	46.2
Tidak terjangkau	35	53.8
Manfaat terhadap pap smear		
Tidak berguna	27	41.5
Berguna	38	58.5
Persepsi Keparahan terhadap kanker serviks		
Tidak parah	35	53.8
Cukup parah	30	46.2
Persepsi Kerentanan terhadap kanker serviks		
Resiko rendah	38	58.5
Resiko tinggi	27	41.5
Perilaku Pap Smear		
Tidak	25	38.5
Ya	40	61.5

Berdasarkan tabel 1, hasil penelitian ini menunjukkan bahwa mayoritas responden berusia lebih dari 35 tahun (60,0%). Mayoritas subjek memiliki sikap negatif (50,8%), memiliki nilai negatif tinggi pada tes pap smear (50,8%). Mayoritas subjek menyatakan bahwa tes pap smear tidak terjangkau (53,8%) tetapi bermanfaat (58,5%). Sebagian besar responden menyatakan bahwa kanker serviks bukanlah penyakit berat (53,8%), dan sebagian besar responden menyatakan bahwa mereka berisiko rendah terkena kanker serviks (58,5%) dan memiliki perilaku tes pap smear (61,5%).

Tabel 2. Analisis Bivariabel Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia

Variabel	Perilaku Pap Smear				Total		p
	Tidak		Ya		n	%	
	n	%	n	%			
<b>Usia</b>							
<35 tahun	16	61.5	10	38.5	26	100	0.002
>35 tahun	9	23.1	30	76.9	39	100	
Total	25	38.5	40	61.5	65	100	
<b>Sikap</b>							
Positif	8	25.0	24	75.0	32	100	0.028
Negatif	17	51.5	16	48.5	33	100	
Total	25	38.5	40	61.5	65	100	
<b>Nilai</b>							
Positif	13	40.6	19	59.4	32	100	0.724
Negatif	12	36.4	21	63.6	33	100	
Total	25	38.5	40	61.5	65	100	
<b>Biaya</b>							
Terjangkau	14	46.7	16	53.3	30	100	0.208
Tidak terjangkau	11	31.4	24	68.6	35	100	
Total	25	38.5	40	61.5	65	100	
<b>Manfaat</b>							
Tidak berguna	12	44.4	15	55.6	27	100	0.403
Berguna	13	34.2	25	65.8	38	100	
Total	25	38.5	40	61.5	65	100	
<b>Keparahan</b>							
Tidak parah	13	37.1	22	62.9	35	100	0.813
Cukup parah	12	40.0	18	60.0	30	100	
Total	25	38.5	40	61.5	65	100	
<b>Kerentanan</b>							
rendah	25	65.8	13	34.2	38	100	0.001
tinggi	0	0.0	27	100.0	27	100	
Total	25	38.5	40	61.5	65	100	

Berdasarkan variabel usia, hasil penelitian menunjukkan bahwa yang mendominasi adalah responden berusia lebih dari 35 tahun dan memiliki perilaku pap smear sebanyak 30 responden (76,9%). Responden dengan sikap positif dan perilaku pap smear sebanyak 24 responden (75,0%). Persentase ini lebih besar dibandingkan responden dengan sikap negatif dan tidak memiliki perilaku pap smear yang berjumlah 17 responden (51,5%). Responden yang memiliki nilai negatif dan

memiliki perilaku pap smear lebih banyak yaitu 21 responden (63,6%) dibandingkan responden yang tidak memiliki perilaku pap smear.

Berdasarkan variabel tingkat biaya, hasil penelitian menunjukkan bahwa yang dominan adalah responden yang mengatakan tes pap smear mahal dan memiliki perilaku pap smear sebanyak 24 responden (68,6%). Berdasarkan variabel tingkat manfaat diperoleh hasil yang dominan adalah responden yang menyatakan pap smear bermanfaat dan memiliki perilaku pap smear sebanyak 25 responden (65,8%). Sedangkan responden yang tidak berat dan tidak melakukan pap smear sebanyak 22 responden (62,9%). Berdasarkan variabel kerentanan, yang dominan adalah responden berisiko dan memiliki perilaku pap smear sebanyak 27 responden (100,0%).

Analisis chi square menunjukkan bahwa ada hubungan yang signifikan antara usia dan kerentanan dengan perilaku pap smear (p-value <0,05). Hasil analisis chi square menunjukkan bahwa tidak ada hubungan yang signifikan antara sikap, nilai, biaya, manfaat dan keparahan dengan perilaku pap smear. Dalam analisis multivariabel, variabel yang memenuhi syarat untuk uji regresi logistik adalah umur, sikap, biaya dan kerentanan.

Tabel 3. Hasil Analisis Multivariabel Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia

Variabel	p value	Exp (B)	95% CI for EXP(B)	
			Lower	Upper
Usia	0.009	26.903	2.251	321.490
Sikap	0.030	12.572	1.281	123.408

Berdasarkan tabel 3, hasil analisis menunjukkan bahwa faktor yang paling mempengaruhi perilaku pap smear adalah usia dengan p-value 0,009 dengan PR= 26,903 (95% CI 2.251-321.490). Hal ini menunjukkan bahwa bidan yang berusia kurang dari 35 tahun memiliki perilaku pap smear yang kurang dari 26.903 lebih besar dibandingkan dengan bidan yang berusia lebih dari 35 tahun. Penelitian sebelumnya menunjukkan bahwa hubungan antara usia dan partisipasi dalam tes pap smear telah diakui dalam beberapa penelitian (p<0,05), menunjukkan bahwa persentase skrining kanker serviks bervariasi berdasarkan usia. Seiring bertambahnya usia wanita, mereka kemungkinan besar akan melakukan tes pap smear. [10-12].

Faktor lain yang mempengaruhi perilaku pap smear adalah sikap dengan p-value 0,03 PR = 12,572 (95% CI 1,281-123,408). Bidan yang memiliki sikap negatif berisiko memiliki perilaku pap smear yang lebih sedikit 12,572 kali lebih besar daripada bidan yang memiliki sikap positif. Sikap merupakan variabel yang signifikan terhadap perilaku pap smear.

Hasil penelitian ini menunjukkan hasil yang signifikan antara usia ibu dengan perilaku Pap smear p-value < 0,02. Bidan yang lebih tua memutuskan untuk melakukan papsmea karena risiko. Berbeda dengan penelitian sebelumnya yang dilakukan oleh Dewi Suryani dkk dan Dwika Gustiana dkk yang menyatakan tidak ada hubungan antara usia dengan perilaku Pap smear [13-14].

Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Ncube et al yang menunjukkan adanya hubungan yang signifikan antara sikap (feel of fear) dan perilaku pap smear (p-value <0,05) [15]. Banyak peneliti menemukan bahwa ketakutan akan didiagnosis kanker serviks, sakit perut setelah pap smear, dan perasaan tidak nyaman selama tes dapat berdampak negatif pada wanita yang melakukan tes pap [16-18].

Berdasarkan variabel kerentanan, hasil statistik dalam penelitian ini menunjukkan bahwa terdapat hubungan yang signifikan antara kerentanan dengan perilaku pap smear dengan p-value 0,001 (p-value <0,05). Hal ini didukung oleh hasil penelitian Rachmawati yang menyatakan bahwa terdapat hubungan yang signifikan antara kerentanan dengan perilaku pap smear dengan p-value 0,01 (p-value < 0,01)

[19]. Hasil penelitian ini juga didukung oleh penelitian Karimy dkk yang menyatakan ada hubungan yang signifikan antara kerentanan (kerentanan) dengan perilaku pap smear [20].

Kerentanan yang dirasakan adalah persepsi subjektif seseorang tentang risiko terkena penyakit. Seseorang akan bertindak untuk mengobati atau mencegah penyakit jika merasa rentan terhadap serangan penyakit tersebut. Kerentanan setiap perempuan berbeda-beda tergantung dari risiko individu yang dirasakan dari situasi tertentu. Jika seorang wanita merasa rentan, wanita tersebut akan berniat untuk melakukan pap smear. Hal ini dikarenakan mereka merasa rentan terhadap kanker serviks sehingga ingin mencegah penyakit tersebut. Sedangkan persepsi kerentanan perempuan tidak cukup membuat perempuan tidak peka terhadap risiko terkena suatu penyakit, sehingga tidak aktif melakukan pencegahan dengan pap smear.

Faktor lain yang mempengaruhi perilaku pap smear adalah nilai (tingkat malu), tingkat biaya, tingkat manfaat dan tingkat keparahan. Namun dalam penelitian ini menunjukkan bahwa tidak ada hubungan yang signifikan antara tingkat biaya, tingkat manfaat dan tingkat keparahan dengan perilaku pap smear ( $p$ -value  $>0,05$ ). Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Cholifah dkk yang menyatakan bahwa tidak ada hubungan antara tingkat rasa malu dengan perilaku pap smear [22]. Namun penelitian lain menunjukkan sebaliknya. Penelitian Suantika dkk menyatakan bahwa wanita sering mengeluh merasa malu sehingga wanita jarang mau melakukan pap smear, seperti bidan. Merasa malu karena pemeriksaan langsung pada organ intim menjadikan kendala utama untuk keikutsertaannya dalam pap smear [23].

Sebuah studi yang dilakukan oleh Ashtarian et al menyatakan bahwa meskipun biaya rendah dan aksesibilitas untuk tes pap dapat dianggap sebagai fasilitator, hasilnya menunjukkan bahwa akses yang mudah dan terjangkau untuk tes pap tidak berharga bagi perempuan [24]. Namun hasil ini berbeda dengan penelitian yang dilakukan oleh Kim yang menyatakan bahwa tingkat biaya memiliki hubungan dengan perilaku pap smear [25].

Dalam penelitian lain yang dilakukan oleh McFarland menyatakan bahwa tidak ada hubungan antara tingkat manfaat dan tingkat keparahan dengan perilaku pap smear. Berdasarkan variabel tingkat manfaat dan tingkat keparahan, bidan yang pernah melakukan pap smear dan bidan yang tidak pernah melakukan pap smear sangat mirip [26]. Temuan ini tidak konsisten dengan temuan sebelumnya [27]. Keparahannya yang dirasakan merupakan persepsi seseorang terhadap berat ringannya penyakit yang diderita. tindakan seseorang untuk mencari pengobatan dan pencegahan penyakit didorong oleh ancaman penyakit [21]. Namun dalam penelitian ini menunjukkan bahwa tidak ada hubungan antara tingkat keparahan dengan perilaku pap smear.

Secara keseluruhan, dari hasil penelitian ini terdapat tiga variabel yang secara bersama-sama mempengaruhi perilaku pap smear yaitu usia, tingkat ketakutan dan kerentanan. Usia merupakan faktor yang paling mempengaruhi perilaku pap smear.

### **Kesimpulan**

Ada hubungan yang signifikan antara usia, sikap (tingkat ketakutan) dan kerentanan dengan perilaku pap smear. Faktor yang paling mempengaruhi perilaku pap smear adalah usia bidan. Peningkatan upaya promotif dan motivasi tentang pap smear sejak dini kepada para bidan akan berdampak positif terhadap peningkatan jumlah perilaku pap smear di kalangan bidan dan perempuan pada umumnya karena bidan merupakan salah satu panutan bagi masyarakat khususnya bagi perempuan.

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# ETHICAL CLEARANCE



# KOMISI ETIK PENELITIAN KESEHATAN POLITEKNIK KESEHATAN KEMENKES YOGYAKARTA

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## PERSETUJUAN KOMISI ETIK No. LB.01.01/KE-01/XII/326/2017

Judul	:	<b>Faktor-faktor yang Mempengaruhi Perilaku Bidan dalam Pelaksanaan PMTCT di Puskesmas Kota Yogyakarta</b>
Dokumen	:	1. Protokol 2. Formulir pengajuan dokumen 3. Penjelasan sebelum Penelitian 4. <i>Informed Consent</i>
Nama Peneliti	:	<b>Niken Meilani, S.SiT., S.Pd., M.Kes.</b>
Dokter/ Ahli medis yang bertanggungjawab	:	-
Tanggal Kelaikan Etik	:	29 Maret 2017
Institusi peneliti	:	Poltekkes Kemenkes Yogyakarta


Komisi Etik Penelitian Kesehatan (KEPK) Politeknik Kesehatan Kementerian Kesehatan Yogyakarta menyatakan bahwa protokol diatas telah memenuhi prinsip etis berdasarkan pada Deklarasi Helsinki 1975 dan oleh karena itu penelitian tersebut dapat dilaksanakan.

**Surat Kelaikan Etik ini berlaku 1 (satu) tahun sejak tanggal terbit.**

Komisi Etik Penelitian Kesehatan (KEPK) Politeknik Kesehatan Kementerian Kesehatan Yogyakarta memiliki hak untuk memantau kegiatan penelitian setiap saat. Peneliti wajib menyampaikan laporan akhir setelah penelitian selesai atau laporan kemajuan penelitian jika dibutuhkan.

Demikian, surat ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Ketua,

  
**Joko Susilo, SKM., M.Kes**  
NIP.196412241988031002

**TURNITIN**

# JKB April 2022

*by* Niken Meilani

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## Factors Associated to Pap Smear Cervical Screening Behavior among Midwives in Yogyakarta, Indonesia

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### ABSTRACT

35 Cervical cancer was caused approximately 90% of death occurred in low and middle-income countries. Indonesia was the second country which has the most cervical cancer cases in the world. Midwives had a important role for cervical cancer screening and also as role model in society. Cervical cancer screening recommendation was pap smear test. This study aims to determine the factors that associated in midwife's pap smear behavior. This study used a quantitative cross-sectional design. Subjects were 65 midwives in primary health care in Yogyakarta City. Combination Theory used Precede and Procede and Health Belief Model. This research analysis used univariate, bivariate and multivariate analysis. The results showed that there were 64.2% of midwives have did implementation of pap smear. There was a relationship between age ( $p=0.002$ ), attitude ( $p=0.028$ ), cost ( $p=0.208$ ) and vulnerability ( $p=0.001$ ) with pap smear behavior. There was no correlation between value ( $p=0.724$ ), benefit ( $p=0.403$ ) and severity ( $p=0.813$ ) with pap smear behavior. Multivariate analysis showed that age was the most dominant factors affecting pap smear behavior ( $p$ -value 0.009; PR 26.903; CI 95% 2.251-321.490). Need to improved promotive efforts about pap smear among midwives and also women in general.

Keywords: midwives; screening; cervical cancer; age

### 40 Pendahuluan

Kanker serviks menempati urutan keempat kanker tersering pada wanita pada tahun 2018 dengan perkiraan 570.000 kasus baru, mewakili 6,6% dari seluruh kanker wanita. Sekitar 90% kematian akibat kanker serviks terjadi di negara berpenghasilan rendah dan menengah [1]. Indonesia merupakan negara kedua di dunia dengan penderita kanker serviks terbanyak [2]. Berdasarkan data Kementerian Kesehatan tahun 2015, rata-rata setiap jam jumlah penderita kanker serviks meningkat 2,5 orang dan 1,1 wanita meninggal karena kanker serviks. Prevalensi dan estimasi kanker serviks tahun 2013 di Indonesia sebesar 0,8% dengan total estimasi 98,692 kasus. Daerah Istimewa Yogyakarta merupakan

salah satu dari tiga provinsi yang memiliki prevalensi kanker serviks tertinggi yaitu 1,5% dengan jumlah 2703 kasus [3].

Tingginya angka kematian akibat kanker serviks secara global dapat dikurangi melalui pendekatan komprehensif yang mencakup pencegahan, diagnosis dini, program skrining dan pengobatan yang efektif [1]. Bentuk paling umum dari kanker serviks dimulai dengan perubahan prakanker, dan ada cara untuk menghentikan perkembangan penyakit ini. Cara pertama adalah menemukan dan mengobati prakanker sebelum menjadi kanker sejati. Cara kedua adalah mencegah prakanker. Jika prakanker ditemukan, dapat diobati, menghentikan kanker serviks sebelum benar-benar dimulai. Skrining kanker serviks yang dikenal dengan tes pap smear



10 merupakan metode yang efektif untuk deteksi dini kanker serviks. Tes pap adalah prosedur yang digunakan untuk mengumpulkan sel-sel dari leher rahim sehingga dapat dilihat di bawah mikroskop untuk menemukan kanker dan pra-kanker. Sebagian besar kanker serviks invasif ditemukan pada wanita yang belum menjalani tes pap secara teratur [4].

20 Pemerintah Indonesia mengoptimalkan program deteksi dini kanker serviks untuk meningkatkan pelaksanaan pencegahan dan deteksi dini kanker pada wanita di Indonesia dengan memfasilitasi pemeriksaan pap smear gratis menggunakan jaminan kesehatan nasional (BPJS Kesehatan). Sayangnya, masih banyak perempuan yang tidak melakukan skrining kanker serviks meski sudah ada program 5 dari pemerintah. Berdasarkan penelitian Sari, mayoritas motivasi wanita usia subur untuk melakukan deteksi dini kanker serviks sangat rendah 16 (60,0%) dan sebanyak 54,0% responden belum pernah melakukan pap smear [6]. Dalam penelitian lain yang dilakukan oleh Kusumaningrum menyatakan bahwa sebagian besar wanita usia subur (61,1%) di Pancuran, Bantul tidak mendukung pemeriksaan pap smear [7]. 43

Pelaksanaan deteksi dini kanker serviks dilakukan oleh tenaga kesehatan yang berwenang, termasuk bidan. Sebagai tenaga kesehatan, profesi bidan harus menjadi panutan bagi masyarakat untuk melakukan skrining kanker sedini mungkin. Namun penelitian yang dilakukan oleh Syaiful menyebutkan bahwa fenomena yang terjadi adalah profesi bidan tidak patuh untuk melakukan pap smear padahal mereka memiliki pengetahuan yang baik tentang kanker serviks dan proses pemeriksaan pap smear. Bidan sebagai tenaga kesehatan harus menjadi panutan bagi masyarakat. Salah satu tugas Bidan khususnya dalam hal pencegahan yaitu kanker serviks dengan deteksi dini. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi perilaku 19 dalam pencegahan kanker serviks dengan tes pap smear.

## Metode Penelitian

Penelitian ini merupakan penelitian kuantitatif dengan pendekatan cross sectional. Subjek penelitian ini adalah 65 bidan di 14 Puskesmas di Yogyakarta. Subjek dipilih secara acak. Perhitungan sampel untuk ukuran sampel minimum menggunakan rumus Lemeshow. Semua subjek sukarela berpartisipasi untuk penelitian ini dengan menandatangani persetujuan. Penelitian ini juga telah mendapatkan persetujuan etik dari Komisi Etik Poltekkes Kemenkes Yogyakarta. Penelitian ini menggunakan pendekatan kerangka teori kombinasi model Precede-Proceed (Lawrence Green) pada variabel sikap dan nilai (malu) dan Health Belief Model yang terdiri dari 17 Severity, Vulnerability, Cost dan Benefit. Variabel bebas dalam penelitian ini terdiri dari umur bidan, sikap terhadap perilaku pap smear, tingkat keparahan, kerentanan bidan, tingkat biaya tes pap smear, tingkat manfaat tes pap smear. Variabel terikat adalah perilaku pap smear pada bidan. Penelitian ini diukur dengan kuesioner tentang sikap bidan (merasa dari ketakutan), nilai (merasa malu), tingkat keparahan, kerentanan bidan tentang kanker serviks dan tingkat biaya dan manfaat perilaku tes pap smear menggunakan skala analog visual dari 0 sampai dengan 10. 0 berarti negatif dan 10 berarti positif. Dikategorikan untuk setiap variabel tergantung p 46 normalitas data. Dikategorikan menurut cara untuk data normal dan median yang digunakan untuk data tidak normal. Usia dikategorikan kurang dan lebih 35 tahun, sikap dan nilai terhadap pap smear dikategorikan positif dan negatif, biaya dikategorikan terjangkau dan tidak terjangkau, manfaat dikategorikan tidak bermanfaat dan bermanfaat, keparahan dikategorikan tidak parah dan cukup parah, kerentanan dikategorikan tidak berisiko dan berisiko dan perilaku pap smear dikategorikan ya dan tidak. Analisis menggunakan analisis univariat untuk menggambarkan distribusi frekuensi, analisis bivariabel menggunakan uji chi square, sedangkan analisis multivariabel menggunakan regresi logistik untuk semua variabel dengan  $p < 0,25$ .



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**Hasil dan Pembahasan**

**Tabel 1.**  
**Analisis univariat Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia**

Variabel	n (65)	%
Usia		
<35 tahun	26	40.0
>35 tahun	39	60.0
Sikap terhadap perilaku pap smear		
Positif	32	49.2
Negatif	33	50.8
Nilai terhadap perilaku pap smear		
Positif	32	49.2
Negatif	33	50.8
Biaya untuk pap smear		
Terjangkau	30	46.2
Tidak terjangkau	35	53.8
Manfaat terhadap pap smear		
Tidak berguna	27	41.5
Berguna	38	58.5
Persepsi Keparahan terhadap kanker serviks		
Tidak parah	35	53.8
Cukup parah	30	46.2
Persepsi Kerentanan terhadap kanker serviks		
Resiko rendah	38	58.5
Resiko tinggi	27	41.5
Perilaku Pap Smear		
Tidak	25	38.5
Ya	40	61.5

**Tabel 2.**  
**Analisis Bivariabel Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia**

Variabel	Perilaku Pap Smear				Total		P value
	n	Tidak %	Ya n	Ya %	n	%	
Usia							
<35 tahun	16	61.5	10	38.5	26	100	0.002
>35 tahun	9	23.1	30	76.9	39	100	
Total	25	38.5	40	61.5	65	100	
Sikap							
Positif	8	25.0	24	75.0	32	100	0.028
Negatif	17	51.5	16	48.5	33	100	
Total	25	38.5	40	61.5	65	100	
Nilai							
Positif	13	40.6	19	59.4	32	100	0.724
Negatif	12	36.4	21	63.6	33	100	
Total	25	38.5	40	61.5	65	100	
Biaya							
Terjangkau	14	46.7	16	53.3	30	100	0.208
Tidak terjangkau	11	31.4	24	68.6	35	100	
Total	25	38.5	40	61.5	65	100	

Variabel	Perilaku Pap Smear				Total		P value
	n	Tidak %	Ya n	Ya %	n	%	
Manfaat							
Tidak berguna	12	44.4	15	55.6	27	100	0.403
Berguna	13	34.2	25	65.8	38	100	
Total	25	38.5	40	61.5	65	100	
Keparahan							
Tidak parah	13	37.1	22	62.9	35	100	0.813
Cukup parah	12	40.0	18	60.0	30	100	
Total	25	38.5	40	61.5	65	100	
Kerentanan							
rendah	25	65.8	13	34.2	38	100	0.001
tinggi	0	0.0	27	100.0	27	100	
Total	25	38.5	40	61.5	65	100	

**Tabel 3.** Hasil Analisis Multivariabel Faktor-Faktor yang Mempengaruhi Perilaku Skrining Serviks pada Bidan di Yogyakarta, Indonesia

Variabel	p value	Exp (B)	95% CI for EXP(B)	
			Lower	Upper
Usia	0.009	26.903	2.251	321.490
Sikap	0.030	12.572	1.281	123.408

Distribusi frekuensi baik variabel dependen maupun independen seperti usia bidan, sikap terhadap perilaku pap smear, tingkat keparahan, kerentanan bidan, tingkat biaya tes pap smear, tingkat manfaat tes pap smear ditunjukkan pada tabel 1.

Berdasarkan tabel 1, hasil penelitian ini menunjukkan bahwa mayoritas responden berusia lebih dari 35 tahun (60,0%). Mayoritas subjek memiliki sikap negatif (50,8%), memiliki nilai negatif tinggi pada tes pap smear (50,8%). Mayoritas subjek menyatakan bahwa tes pap smear tidak terjangkau (53,8%) tetapi bermanfaat (58,5%). Sebagian besar responden menyatakan bahwa kanker serviks bukanlah penyakit berat (53,8%), dan sebagian besar responden menyatakan bahwa mereka berisiko rendah terkena kanker serviks (58,5%) dan memiliki perilaku tes pap smear (61,5%).

Berdasarkan tabel 2 menunjukkan variabel usia, hasil penelitian menunjukkan bahwa yang mendominasi adalah responden berusia lebih dari 35 tahun dan memiliki perilaku pap smear sebanyak 30 responden (76,9%). Responden dengan sikap positif dan perilaku pap smear sebanyak 24 responden (75,0%). Persentase ini lebih besar dibandingkan responden dengan sikap negatif dan tidak memiliki perilaku pap smear yang berjumlah 17 responden (51,5%). Responden yang memiliki nilai negatif dan memiliki perilaku pap smear lebih

banyak yaitu 21 responden (63,6%) dibandingkan responden yang tidak memiliki perilaku pap smear.

Berdasarkan variabel tingkat biaya, hasil penelitian menunjukkan bahwa yang dominan adalah responden yang mengatakan tes pap smear mahal dan memiliki perilaku pap smear sebanyak 24 responden (68,6%). Berdasarkan variabel tingkat manfaat diperoleh hasil yang dominan adalah responden yang menyatakan pap smear bermanfaat dan memiliki perilaku pap smear sebanyak 25 responden (65,8%). Sedangkan responden yang tidak berat dan tidak melakukan pap smear sebanyak 22 responden (62,9%). Berdasarkan variabel kerentanan, yang dominan adalah responden berisiko dan memiliki perilaku pap smear sebanyak 27 responden (100,0%).

Analisis chi square menunjukkan bahwa ada hubungan yang signifikan antara usia dan kerentanan dengan perilaku pap smear (p-value <0,05). Hasil analisis chi square menunjukkan bahwa tidak ada hubungan yang signifikan antara sikap, nilai, biaya, manfaat dan keparahan dengan perilaku pap smear. Dalam analisis multivariabel, variabel yang memenuhi syarat untuk uji regresi logistik adalah umur, sikap, biaya dan kerentanan.

Berdasarkan tabel 3, hasil analisis menunjukkan bahwa faktor yang paling mempengaruhi perilaku pap smear adalah usia dengan p-value 0,009 dengan PR= 26,903 (95% CI 2.251-321.490). Hal ini menunjukkan bahwa bidan

yang berusia kurang dari 35 tahun memiliki perilaku pap smear yang kurang dari 26.903 lebih besar dibandingkan dengan bidan yang berusia lebih dari 35 tahun. Penelitian sebelumnya menunjukkan bahwa hubungan antara usia dan partisipasi dalam tes pap smear telah diakui dalam beberapa penelitian ( $p < 0,05$ ), menunjukkan bahwa persentase skrining kanker serviks bervariasi berdasarkan usia. Seiring bertambahnya usia wanita, mereka kemungkinan besar akan melakukan tes pap smear. [10-12].

Faktor lain yang mempengaruhi perilaku pap smear adalah sikap dengan  $p$ -value 0,03 PR = 12,572 (95% CI 1,281-123,408). Bidan yang memiliki sikap negatif berisiko memiliki perilaku pap smear yang lebih sedikit 12,572 kali lebih besar daripada bidan yang memiliki sikap positif. Sikap merupakan variabel yang signifikan terhadap perilaku pap smear.

Hasil penelitian ini menunjukkan hasil yang signifikan antara usia ibu dengan perilaku Pap smear  $p$ -value  $< 0,02$ . Bidan yang lebih tua memotivasi untuk melakukan papsmear karena risiko. Berbeda dengan penelitian sebelumnya yang dilakukan oleh Dewi Suryani dkk dan Dwika Gustiana dkk yang menyatakan tidak ada hubungan antara usia dengan perilaku Pap smear [13-14].

Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Ncube et al yang menunjukkan adanya hubungan yang signifikan antara sikap (feel of fear) dan perilaku pap smear ( $p$ -value  $< 0,05$ ) [15]. Banyak peneliti menemukan bahwa ketakutan akan didiagnosis kanker serviks, sakit perut setelah pap smear, dan perasaan tidak nyaman selama tes dapat berdampak negatif pada wanita yang melakukan tes pap [16-18].

Berdasarkan variabel kerentanan, hasil statistik dalam penelitian ini menunjukkan bahwa terdapat hubungan yang signifikan antara kerentanan dengan perilaku pap smear dengan  $p$ -value 0,001 ( $p$ -value  $< 0,05$ ). Hal ini didukung oleh hasil penelitian Rachmawati yang menyatakan bahwa terdapat hubungan yang signifikan antara kerentanan dengan perilaku pap smear dengan  $p$ -value 0,01 ( $p$ -value  $< 0,01$ ) [19]. Hasil penelitian ini juga didukung oleh penelitian Karimy dkk yang menyatakan ada hubungan yang signifikan antara kerentanan (kerentanan) dengan perilaku pap smear [6].

Kerentanan yang dirasakan adalah persepsi subjektif seseorang tentang risiko terkena penyakit. Seseorang akan bertindak untuk mengobati atau mencegah penyakit jika merasa rentan terhadap serangan penyakit

tersebut. Kerentanan setiap perempuan berbeda-beda tergantung dari risiko individu yang dirasakan dari situasi tertentu. Jika seorang wanita merasa rentan, wanita tersebut akan berniat untuk melakukan pap smear. Hal ini dikarenakan mereka merasa rentan terhadap kanker serviks sehingga ingin mencegah penyakit tersebut. Sedangkan persepsi kerentanan perempuan tidak cukup membuat perempuan tidak peka terhadap risiko terkena suatu penyakit, sehingga tidak aktif melakukan pencegahan dengan pap smear.

Faktor lain yang mempengaruhi perilaku pap smear adalah nilai (tingkat malu), tingkat biaya, tingkat manfaat dan tingkat keparahan. Namun dalam penelitian ini menunjukkan bahwa tidak ada hubungan yang signifikan antara tingkat biaya, tingkat manfaat dan tingkat keparahan dengan perilaku pap smear ( $p$ -value  $> 0,05$ ). Hasil penelitian ini sejalan dengan penelitian yang dilakukan oleh Cholifah dkk yang menyatakan bahwa tidak ada hubungan antara tingkat rasa malu dengan perilaku pap smear [22]. Namun penelitian lain menunjukkan sebaliknya. Penelitian Suantika dkk menyatakan bahwa wanita sering mengeluh merasa malu sehingga wanita jarang mau melakukan pap smear, seperti bidan. Merasa malu karena pemeriksaan langsung pada organ intim menjadikan kendala utama untuk keikutsertaannya dalam pap smear [23].

Sebuah studi yang dilakukan oleh Ashtarian et al menyatakan bahwa meskipun biaya rendah dan aksesibilitas untuk tes pap dapat dianggap sebagai fasilitator, hasilnya menunjukkan bahwa akses yang mudah dan terjangkau untuk tes pap tidak berharga bagi perempuan [24]. Namun hasil ini berbeda dengan penelitian yang dilakukan oleh Kim yang menyatakan bahwa tingkat biaya memiliki hubungan dengan perilaku pap smear [25].

Dalam penelitian lain yang dilakukan oleh McFarland menyatakan bahwa tidak ada hubungan antara tingkat manfaat dan tingkat keparahan dengan perilaku pap smear. Berdasarkan variabel tingkat manfaat dan tingkat keparahan, bidan yang pernah melakukan pap smear dan bidan yang tidak pernah melakukan pap smear sangat mirip [26]. Temuan ini tidak konsisten dengan temuan sebelumnya [27]. Keparahan yang dirasakan merupakan persepsi seseorang terhadap berat ringannya penyakit yang diderita, tindakan seseorang untuk mencari pengobatan dan pencegahan penyakit didorong oleh ancaman penyakit [21]. Namun dalam penelitian ini menunjukkan bahwa tidak ada hubungan antara tingkat keparahan dengan perilaku pap smear.

Secara keseluruhan, dari hasil penelitian ini terdapat tiga variabel yang secara bersama-sama mempengaruhi perilaku pap smear yaitu usia, tingkat ketakutan dan kerentanan. Usia merupakan faktor yang paling mempengaruhi perilaku pap smear.

### Simpulan

Ada hubungan yang signifikan antara usia, sikap (tingkat ketakutan) dan kerentanan dengan perilaku pap smear. Faktor yang paling mempengaruhi perilaku pap smear adalah usia bidan. Peningkatan upaya promotif dan motivasi tentang pap smear sejak dini kepada para bidan akan berdampak positif terhadap peningkatan jumlah perilaku pap smear di kalangan bidan dan perempuan pada umumnya karena bidan merupakan salah satu panutan bagi masyarakat khususnya bagi perempuan.

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