ORIGINALNI RAD

UDK BROJEVI:
618.146-006.6-07/-084
DOI: https://doi.org/10.5937/zdravzast50-33910

PROCENA UTICAJA STAVOVA ŽENA O BENEFITU SKRININGA I MOTIVACIONIH FAKTORA NA NJIHOVO UČEŠĆE U PAPANIKOLAU SKRINING TESTU

Vesna Jovanović[1], Vanja Pažun[1], Vesna Maksimović[1], Vesna Vuković[1]

[1] Akademija strukovnih studija Beograd, Odsek Visoka zdravstvena škola, Beograd, Republika Srbija

SAŽETAK

Uvod/Cilj: U Srbiji karcinom grlića materice (KGM) je drugi vodeći uzrok obolevanja, odmah posle karcinoma dojke. U cilju ranog otkrivanja KGM koristi se Papanikolau test (Papa test). Motivacioni faktori i stavovi žena o benefitu Papanikolau skrining testa mogu uticati na stopu participacije u njemu. Cilj istraživanja je bio da se ispita da li postoji veza između stavova žena o benefitu skrininga i motivacionih faktora sa njihovim učešćem u Papanikolau skrining testu KGM-a.

Metode: Ovom studijom preseka bilo je obuhvaćeno 300 žena uzrasta od 21 do 69 godina, koje su došle na ginekološki pregled u Ginekološko-akušersku kliniku „Narodni front"u Beogradu, u periodu od juna do decembra 2015. godine. Od svih ispitanica prikupljeni su podaci o njihovim demografskim karakteristikam, razlogu dolaska na kliniku, koliko su se često podvrgavale skriningu (Papanikolau testu), kao i podaci o njihovim stavovima o benefitu skrininga i motivaciji za podvrgavanje Papanikolau skrining testu korišćenjem jednog dela upitnika pod nazivom CPC-28 upitnik (na španskom *Creencias, Papanicolaou, Cancer -28*).

Rezultati: Od 300 žena koje su učestvovale u istraživanju, 37,3% žena je redovno participiralo u Papanikolau testu, 43,7% neredovno, a 19,0% nikada. Žene koje su redovno participirale u skriningu su značajno više verovale da je važno da se redovno radi Papa test da bi znale da su zdrave ($F = 13,59$; $p < 0,001$) i da je Papanikolau test najbolji način da se utvrdi rani stadijum KGM-a ($F = 12,29$; $p < 0,001$) u odnosu na žene koje su neredovno i koje nikada nisu participirale u skriningu. Žene koje su neredovno ili nikada nisu učestvovale u skrining programu značajno bi više bile motivisane na skrining ukoliko bi neko u njihovoj porodici ili okolini oboleo od KGM-a ($F = 5,11$; $p = 0,007$), a žene koje su redovno učestvovale u skriningu značajno bi više bile motivisane preporukom od strane ginekologa ($F=5,58$; $p=0,004$) i željom da brinu o svom zdravlju ($F = 6,93$; $p = 0,001$). Visok stepen motivacije je značajano bio povezan sa donošenjem odluke žena da redovno participiraju u skriningu ($\chi^2 = 13,05$; $p = 0,001$) u odnosu na žene koje su neredovno ili koje nikada nisu učestvovale u skriningu.

Zaključak: U okviru ovog istraživanja uočeno je da se tek svaka treća ispitanica redovno podvrgavala Papanikolau skrining testu, što je daleko niže od postavljenih nacionalnih ciljeva da najmanje 75% ciljne populacije žena uzrasta od 25 do 64 godine treba da bude obuhvaćeno organizovanim skriningom. Neophodno je podizanje svesti žena o značaju Papanikolau skrininga za rano otkrivanje KGM-a, kao i o svim drugim preventivnim merama, a posebno o značaju HPV vakcine.

Ključne reči: karcinom grlića materice, Papanikolau test, skrining test, stavovi, motivacija

Uvod

U svetu, karcinom grlića materice (KGM) je četvrti vodeći uzrok umiranja (posle karcinoma dojke, pluća i kolorektuma) sa tedencijom rasta smrtnih slučajeva u regionima kao što su Istočna, Severna i Srednja Afrika. Kada govorimo o Evropi najviše stope mortaliteta (na 100,000) KGM-a, u 2016. godini,su bile u Rumuniji (14,2), Moldaviji (10,3) i Srbiji (10,3), za razliku od Malte, Finske i Švajcarske gde su se kretale od 1,4 do 1,6 na 100.000 (1). Skrining i pravovremeno lečenje su od ključnog značaja za smanjenje stope mortaliteta od KGM-a. Najvažnija metoda za rano otkrivanje (skrining) KGM-a je konvencionalni Papanikolau (Pap) test (2). Ministarstvo zdravlja Republike Srbije je, 2008. godine, sprovelo Nacionalni program za rano otkrivanje (skrining) KGM-a koji se još uvek primenjuje (3). Međutim, organizovani skrining u Srbiji je započeo u decembru 2012. godine, a ciljnu grupu

ORIGINAL PAPER

UDK NUMBERS:
618.146-006.6-07/-084
DOI: https://doi.org/10.5937/zdravzast50-33910

THE ASSESSMENT OF THE INFLUENCE OF WOMEN'S ATTITUDES ABOUT SCREENING BENEFITS AND MOTIVATIONAL FACTORS ON THEIR PARTICIPATION IN THE PAPANICOLAU SCREENING TEST

Vesna Jovanovic[1], Vanja Pazun[1], Vesna Maksimovic[1], Vesna Vukovic[1]

[1] Academy for Applied Studies Belgrade,The College of Health Sciences, Belgrade, Republic of Serbia

SUMMARY

Introduction: In Serbia, cervical cancer (CC) is the second most common cancer, after breast cancer, The Papanicolaou test is used for the early detection of cervical cancer. Motivational factors and attitudes of women about the benefits of the Papanicolaou screening test can affect the rate of participation in it. The aim of the research was to examine whether there is a connection between women's attitudes about the benefits of screening and motivational factors and their participation in the Papanicolaou screening test of CC.

Methods: This cross-sectional study included 300 women aged 25 to 64, who came for a gynecological examination to the Gynecology and Obstetrics Clinic "Narodni Front" in Belgrade, in the period from June to December 2015. Data were collected from all respondents on their demographic characteristics, reason for coming to the clinic, how often they underwent screening (Papanicolaou test), as well as data on their attitudes about the benefits of screening and motivation for undergoing the Papanicolaou screening test using a part of the questionnaire called CPC -28 questionnaire (in Spanish *Creencias, Papanicolaou, Cancer - 28*).

Results: Of the 300 women who participated in the study, 37.3% of women regularly participated in the Papanicolaou test, 43.7% irregularly, and 19.0% never. Women who participated regularly in screening were significantly more likely to believe that it was important to have a regular Pap test to know they were healthy ($F = 13.59$; $p < 0.001$) and that the Pap test was the best way to determine early-stage CC ($F = 12.29$; $p < 0.001$) compared to women who were irregular and who had never participated in screening. Women who participated irregularly or who had never participated in the screening program would be motivated to participate in it significantly more often if someone developed CC in their family or environment ($F = 5.11$; $p = 0.007$), while women who regularly participated would be motivated significantly more often by gynecologist's recommendations ($F = 5.58$; $p = 0.004$) and care for their own health ($F = 6.93$; $p = 0.001$). The high level of motivation was significantly related to the decision of women to regularly participate in screening ($\chi^2 = 13.05$; $p = 0.001$) in relation to women who were irregular or who had never participated in screening.

Conclusion: Within this research, it was noticed that only every third respondent regularly underwent the Papanicolaou screening test, which is far lower than the set national goals that at least 75% of the target population of women aged 21 to 69 should be covered by organized screening. It is necessary to raise women's awareness about the importance of Papanicolaou screening for early detection of CC, as well as about all other preventive measures, and especially about the importance of the HPV vaccine.

Key words: cervical cancer, Papanicolaou test, screening test, attitudes, motivation

Introduction

Cervical cancer (CC) is the fourth leading cause of death worldwide (after breast, lung and colorectal cancer), with death rates that tend to rise in regions such as Eastern, North and Central Africa. As far as Europe is concerned, the highest mortality rates of CC (per 100.000) in 2016 were in Romania (14.2), Moldavia (10.3) and Serbia (10.3) in contrast to Malta, Finland and Switzerland, where these rates ranged from 1.4 to 1.6 per 100.000 (1). Screening and timely treatment are of key importance for the decline in cervical cancer mortality rate. The most important method

čine žene starosti od 25 do 64 godine. Uprkos činjenici da se organizovani skrining KGM-a sprovodi u Republici Srbiji bez troškova nadoknade, većina žena ga ipak ne koristi (4). Prepoznavanje faktora koji utiču na stopu incidencije KGM-a je od značaja za povećanje stope participacije u skriningu. Mnoge studije ukazuju da su negativni stavovi prema skriningu, dominirajući faktori rizika za nastanak KGM-a (5,6).

Žene koje su verovale da imaju veći rizik od bolesti koja može uzrokovati ozbiljne posledice po njihovo zdravlje i kvalitet života, imale su pozitivne stavove o benefitu participacije u skriningu, što je dovodilo do promene ponašanja i njihovu spremnost da iskoriste prednosti različitih dostupnih zdravstvenih promocija u cilju prevencije bolesti (7). To je u skladu sa mnogim studijama u kojima se većina žena složila da će im redovna participacija u skriningu dati psihološki mir da ne postoji prisustvo KGM-a ili da će se rano otkriti promene na grliću materice i to pre nastanka invazivnog karcinoma, čak i ako ne postoji pozitivna porodična istorija za ovaj karcinom (8).

Cilj istraživanja je bio da se ispita da li postoji veza između stavova žena o benefitu skrininga i motivacionih faktora sa njihovim učešćem u skriningu KGM-a.

Metode

Ovom studijom preseka obuhvaćeno je 300 žena uzrasta od 21 do 69 godina koje su došle na ginekološki pregled u Ginekološko-akušersku kliniku „Narodni front“ u Beogradu, u periodu od juna do decembra 2015. godine. Kriterijumi za isključivanje ispitanica iz studije su: žene koje nisu imale mesto prebivališta na teritoriji grada Beograda; žene mlađe od 21 godine, kao i starije od 69 godina; trudnice; osobe sa dijagnostikovanim KGM-om; i žene sa histerektomijom.

Od svih ispitanica prikupljeni su podaci o njihovim demografskim karakteristikama (uzrast, mesto stanovanja), kao i razlog dolaska na kliniku i koliko su se često podvrgavale skriningu (Papa testu). Takođe, za percepciju benefita skrininga i motivisanost za participiranje u skriningu korišćen je jedan deo upitnika pod nazivom CPC-28 upitnik (na španskom *Creencias, Papanicolaou, Cancer -28*) (7). Stavovi žena su mereni petostepenom skalom Likertovog tipa koja se sastoji od: skale percepcije benefita skrininga (4 pitanja, ukupan skor skale u opsegu od 4 do 20) i skale motivisanosti (5 pitanja, ukupan skor skale u opsegu od 5 do 25). Za svako pitanje ispitanice su mogle da izaberu stepen saglasnosti prema svojim uverenjima i to od potpunog slaganja (5 bodova) do potpunog neslaganja (1 bod). Ukupan skor glavnih skala je izračunat na osnovu zbirnog skora pitanja uključenih u datu skalu. Ispitanice koje su imale skor iznad 60% maksimalnog ukupanog skora glavne skale za percepciju definisane su kao žene sa pozitivnim stavom (visok nivo percepcije), a žene sa skorom jednakim ili ispod 60% imale su negativan stav (nizak nivo percepcije) (7). Takođe, ispitanice koje su imale skor za motivisanost iznad 60% maksimalnog ukupnog skora glavne skale za motivisanost definisane su kao žene sa visokim stepenom motivisanosti, a žene sa skorom jednakim ili ispod 60% sa nisim nivoom motivisanosti (7).

U analizi podataka ispitanice smo podelili prema učestalosti korišćenja skrininga na tri grupe: žene koje su se redovno podvrgavale skriningu (odnosno podvrgavane su skriningu u periodima ≤ 3 godine), žene koje su se neredovno podvrgavale skriningu (odnosno koje su se podvrgavale skriningu u periodima dužim od 3 godine) i žene koje se nikad nisu podvrgle skriningu.

Studija je razmotrena i odobrena od strane Etičkog odbora GAK „Narodni front” u Beogradu.

Analiza i obrada podataka vršene su pomoću paketa namenjenog statističkoj obradi *SPSS 17.0 for Windows*. U statističkoj analizi podataka korišćena je analiza varijanse (ANOVA) za više od dve populacije, hi-kvadrat (χ^2) test i *Post Hoc* testovi (*Dunnetts T3* i *Bonferroni*) su korišćeni da bi se uočile razlike između određenih grupa. Statistički značajnim su smatrani rezultati gde je verovatnoća greške prvog tipa bila manja od 5% ($p < 0,05$).

Rezultati

Od 300 žena koje su učestvovale u istraživanju, 37,3% žena je redovno participiralo u skriningu KGM-a, 43,7% neredovno, a 19,0% nikada (Tabela 1).

Žene koje su redovno participirale u skriningu su značajno više verovale (tj. imale veće vrednosti skora) da je važno da se redovno radi Papa test da bi znale da su zdrave ($F = 13,59$; $p < 0,001$) i da je Papa test najbolji način da se utvrdi rani stadijum KGM-a pre pojave simptoma ($F = 12,29$; $p < 0,001$) u odnosu na žene koje su neredovno i koje nikada nisu participirale u skriningu (Tabela 2). Kada je

for the early detection (screening) of CC is the conventional Papanicolaou (Pap) test (2). In 2008, The Ministry of Health of The Republic of Serbia conducted the National program for the early detection (screening) of cervical cancer that is still being applied (3). However, organized screening in Serbia began in December 2012, while the target group included women aged 25 to 64 years. Although organized screening is realized without any compensatory costs, the majority of women do not use it (4). Recognizing factors that influence the incidence rate of CC is important for increasing the rates of participation in screening. Numerous studies point to the fact that negative attitudes towards screening are dominant risk factors for the appearance of cervical cancer (5,6).

Women, who believed that they were at higher risk of this disease that could cause serious consequences for their health and quality of life, had positive attitudes to benefits of participation in screening, which led to the change in their behavior and their readiness to use the advantages of different available health promotions aimed at disease prevention (7). This is in accordance with numerous studies, in which women agreed that regular participation in screening would give them psychological peace regarding the absence of CC, and that they would discover early changes on the cervix before the occurrence of invasive cancer, even if there was no positive family history for this cancer (8).

The aim of this study was to examine the relationship between women's attitudes towards benefits of screening and motivational factors and their participation in screening of cervical cancer.

Methods

This cross-sectional study included 300 women, aged 21 to 69, who attended the Gynecology and Obstetrics Clinic "Narodni Front" in Belgrade for a gynecological examination from June to December 2015. Exclusion criteria were the following: women whose place of residence was not in the territory of the city of Belgrade; women younger than 21, as well as older than 69; pregnant women; persons with diagnosed CC; and women with hysterectomy.

Data which were collected from all respondents included their demographic characteristics (age, place of residence), reasons for coming to the clinic, and how often they underwent screening (Papanicolaou test). Also, one part of the questionnaire, called CPC-28 questionnaire (in Spanish *Creencias, Papanicolaou, Cancer-28*) was used for the perception of the benefits of screening and motivation to participate in screening. Women's attitudes were measured by five-point Likert scale that included the following: scale of the perception of screening benefits (4 questions, total score ranged from 4 to 20) and motivation scale (5 questions, total score ranged from 5 to 25). The respondents could choose the level of agreement for each question according to their beliefs, ranging from complete agreement (5 points) to complete disagreement (1 point). The total score of main scales was measured according to the sum total of questions included in the given scale. The respondents who had score above 60% of the maximal total score of the main scale for perception were defined as women with a positive attitude (high level of perception), while those women with the equal score or below 60% had a negative attitude (low level of perception) (7). Also, the respondents with a score for motivation above 60% of the maximal total score of the main scale for motivation were defined as women with a high level of motivation, while women with the equal score or below 60% as women with a low level motivation (7).

In the analysis of data, we classified the respondents according to the frequency of using screening into three groups: who underwent screening regularly (that is, who underwent screening in periods ≤ 3 years), who underwent screening irregularly (that is, who underwent screening in periods longer than three years) and women who had never undergone screening.

The study was considered and approved by the Ethics Committee of the Obstetrics and Gynecology Clinic "Narodni Front" in Belgrade.

The analysis of data was done with the help of package for the statistical analysis SPSS 17.0 for Windows. The analysis of variance (ANOVA) was used for the statistical analysis for more than two populations, as well as chi-squared test (χ^2). Post Hoc tests (Dunnetts T3 and Bonferroni) were used in order to notice differences between certain groups. Statistically significant results were those when the probability of type I error was less than 5% ($p < 0,05$).

Tabela 1. Participacija žena u skriningu za karcinom grlića materice

Poslednji Papa test	Broj ispitanika (N=300)	Procenat
Redovno (≤ 3 godine)	112	37,3
Neredovno (>3 godine)	131	43,7
Nikada	57	19,0

ispitivana međugrupna razlika nije bilo značajne razlike između ispitivanih grupa u odnosu na stav da je prihvatanje skrininga dobro uloženo vreme u sopstveno zdravlje i da je ranim otkrivanjem KGM-a maligno oboljenje 100% izlečivo.

Žene koje su redovno participirale u skriningu su značajno više verovale (tj. imale veće vrednosti skora) da je važno da se redovno radi Papa test da bi znale da su zdrave ($F = 13,59$; $p < 0,001$) i da je Papa test najbolji način da se utvrdi rani stadijum KGM-a pre pojave simptoma ($F = 12,29$; $p < 0,001$) u odnosu na žene koje su neredovno i koje nikada nisu participirale u skriningu (Tabela 2). Kada je ispitivana međugrupna razlika nije bilo značajne razlike između ispitivanih grupa u odnosu na stav da je prihvatanje skrininga dobro uloženo vreme u sopstveno zdravlje i da je ranim otkrivanjem KGM-a maligno oboljenje 100% izlečivo.

Takođe, žene koje su redovno participirale u Papanikolau skrining testu su imale značajno češće pozitivan stav o benifitu participacije u skriningu KGM-a u odnosu na žene koje su neredovno ili koje nikada nisu učestvovale u ovom skriningu ($\chi^2 = 6,48$; $p = 0,039$) (Tabela 3).

Žene koje nikada nisu učestvovale u skrining programu KGM-a značajno su se više slagale (prema većem skoru) da bi se uključile u skrining ako neko oboli od KGM-a u njihovoj porodici ili okolini ($F = 5,11$; $p = 0,007$) u odnosu na žene koje su redovno i neredovno podvrgavane skriningu (Tabela 4). Međutim, žene koje su redovno participirale u skriningu, u odnosu na žene koje su neredovno ili koje se nikada nisu odazvale skriningu, značajno su se više slagale (prema većem skoru) da bi ih razgovor sa ginekologom ($F = 5,58$; $p = 0,004$) i briga o svom zdravlju ($F = 6,93$; $p = 0,001$) motivisali na skrining.

Visok stepen motivacije je značajano češće bio povezan sa donošenjem odluke žena da redovno participiraju u skriningu KGM-a ($\chi^2 = 13,05$; $p = 0,001$) u odnosu na žene koje neredovno ili koje nikada nisu učestvovale u skriningu KGM-a (Tabela 5).

Tabela 2. Stavovi žena o benefitu skrininga u odnosu na participaciju u Papanikolau skrining testu

	Participacija u skriningu						Statistika				
	Redovno I N=112		Neredovno II N=131		Nikada III N=57		I-II	I-III	II-III	I-II-III	
Stavovi o benefitu skrininga KGM	x̄	SD	x̄	SD	x̄	SD	p*	p*	p*	F	p**
Važno je da redovno radim Papa test da bih znala da sam zdrava	4,63	0,60	4,27	0,78	4,05	0,87	0,000	0,000	0,272	13,59	0,000
Papa test je najbolji način da se utvrdi rani stadijum KGM pre pojave simptoma	4,59	0,56	4,12	0,89	4,11	0,92	0,000	0,001	0,998	12,29	0,000
Participacija u skriningu KGM je dobro uloženo vreme u moje sopstveno zdravlje	2,75	1,13	2,81	0,89	2,64	1,03	0,961	0,893	0,636	0,55	0,580
Ako se otkrije rani stadijum KGM onda je maligno oboljenje 100% izlečivo	3,86	0,99	3,65	1,04	3,51	1,12	0,265	0,126	0,806	2,55	0,080

x̄ – srednja vrednost; SD – standardna devijacija; *_Bonferroni_ test; **ANOVA.

Table 1. The participation of women in screening for cervical cancer

The last Pap test	The number of respondents (N=300)	Percentage (%)
Regularly (≤ 3 years)	112	37.3
Irregularly (> 3 years)	131	43.7
Never	57	19.0

Results

Of all the 300 women, who participated in the study, 37.7% regularly participated in screening of cervical cancer, 43.7% irregularly and 19.0% never (Table 1).

Women who regularly participated in screening believed significantly more often (that is, they had higher values of score) that it was important to do the Pap test regularly in order to know that they were healthy ($F = 13.59$; $p < 0.001$) and that the Pap test was the best way to discover the early stage of CC before the appearance of symptoms ($F = 12.29$; $p < 0.001$) in comparison to women who participated irregularly or who had never participated in screening (Table 2). When the inter-group difference was examined, there was no significant difference between the examined groups regarding the attitude that accepting screening means that time is well invested in their own health and that the early detection of CC means that malign disease is 100% curable.

Also, women who participated regularly in the Papanicolaou screening test had significantly more often a positive attitude about the benefit of participation in screening for CC, in comparison to women who irregularly or never participated in this screening ($\chi^2 = 6.48$; $p = 0.039$) (Table 3).

Women that had never participated in the screening program agreed significantly more often (according to a higher score) that they would participate in screening if somebody got CC in their family or environment ($F = 5.11$; $p = 0.007$) in comparison to women who regularly or irregularly underwent screening (Table 4). However, women who regularly participated in screening, in comparison to women who participated irregularly or who had never participated, agreed significantly more often (according to a higher score) that the conversation with a gynecologist ($F = 5.58$; $p = 0.004$) and care for their health ($F = 6.93$; $p = 0.001$) would motivate them to undergo screening.

Table 2. Women's attitudes about the benefits of screening in relation to the participation in the Papanicolaou screening test

	Participation in screening						Statistics				
	Regularly I N=112		Irregularly II N=131		Never III N=57		I-II	I-III	II-III	I-II-III	
Attitudes about the benefits of screening of CC	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	p*	p*	p*	F	p**
It is important to do the Pap test regularly in order to know that I am healthy	4.63	0.60	4.27	0.78	4.05	0.87	0.000	0.000	0.272	13.59	0.000
Pap test is the best way to detect the early stage of CC before the appearance of symptoms	4.59	0.56	4.12	0.89	4.11	0.92	0.000	0.001	0.998	12.29	0.000
Participation in screening is time well invested in my own health	2.75	1.13	2.81	0.89	2.64	1.03	0.961	0.893	0.636	0.55	0.580
If the early stage of CC is detected, then the malign disease is 100% curable	3.86	0.99	3.65	1.04	3.51	1.12	0.265	0.126	0.806	2.55	0.080

$\bar{x}$ – mean value; SD – standard deviation; *Bonferroni test; **ANOVA.

Tabela 3. Uticaj stava žena o benefitu skrininga na njihovu odluku da participiraju u skriningu

	Participacija u skriningu									
	Redovno		Neredovno		Nikada		Ukupno		Statistika	
Stav o benefitu participacije u skriningu	Broj	%	Broj	%	Broj	%	Broj	%	χ^2	p
Pozitivan stav	4,63	0,60	4,27	0,78	4,05	0,87	115	38,33		
Negativan stav	4,59	0,56	4,12	0,89	4,11	0,92	185	61,67	6,48	0,039
Ukupno	2,75	1,13	2,81	0,89	2,64	1,03	300	100		

Pozitivan stav > 60% ukupnog skora stava o benefitu skrininga KGM-a;
Negativan stav ≤ 60% ukupnog skora stava o benefitu skrininga KGM-a

Diskusija

U našoj studiji žene koje veruju da imaju veći rizik od KGM-a i da bolest može uzrokovati ozbiljne posledice po njihovo zdravlje i kvalitet života, značajno su češće spremne da promene ponašanje i iskoriste prednosti participacije u skriningu u cilju ranog otkrivanja KGM-a. Autori mnogobrojnih istraživanja ukazuju da više od 85% žena priznaje da je rano otkrivanje KGM-a pomoću Papanikolau testa važan benefit i zauzimaju stav da su promene na grliću materice usled ranijeg otkrivanja izlečive (9-12). U našoj studiji 38,3% žena prepoznaje korisnost od Papnikolau testa za rano otkrivanje KGM-a što se podudara sa brojem žena koje su redovno participirale u skriningu. *Seow* i sar. su pokazali da žene koje su već imale prethodno iskustvo sa Papanikolau testom imaju pozitivan stav da učestvuju u programima skrininga i sledeći put (13), što povrđuje i naše istraživanje gde isti stav zauzima 44,6% žena koje redovno participiraju u skriningu.

Većina žena u našoj studiji koje su redovno učestovale u skrining programu je značajno više verovala da bi bile motivisane razgovorom sa ginekologom da se odazovu skriningu u odnosu na žene koje neredovno ili nikada nisu participirale u skriningu. U literaturi nalazimo da je značaj dobre komunikacije između ginekologa i pacijenta važan motivator i stimulans za učestvovanje u skriningu (14-16). U dve studije sprovedene u SAD, 59% Latinoamerikanki (14) i 58% Kineskinja veruje da ginekolog treba da im preporuči Papanikolau skrining test, pre nego što isti urade (15).

Tabela 4. Stavovi žena o motivacionim faktorima u odnosu na particpciju u skriningu

	Participacija u skriningu						Statistika				
	Redovno I N=112		Neredovno II N=131		Nikada III N=57		I-II	I-III	II-III	I-II-III	
Motivacioni faktori za prihvatanje skrininga	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	p*	p*	p*	F	p**
Radila bih Papa test, jer se tako brinem o svom zdravlju	4,37	1,06	3,94	1,11	3,79	1,13	0,008	0,004	1,000	6,93	0,001
Radila bih Papa test, ako bi moj ginekolog tako zahtevao	4,32	1,08	3,86	1,18	3,88	1,17	0,006	0,052	1,000	5,58	0,004
Radila bih Papa test, ako bi me bliske osobe savetovale da to uradim	3,25	1,05	3,08	1,09	3,12	1,17	0,653	1,000	1,000	0,79	0,457
Radila bih Papa test, ako bi imala simptome	3,88	0,99	3,73	1,04	3,63	1,11	0,793	0,455	1,000	1,19	0,306
Radila bih Papa test, ako bi neko u mojoj porodici ili okolini oboleo od KGM	2,98	1,41	3,11	1,34	3,67	1,21	0,862	0,004	0,017	5,11	0,007

$\bar{x}$ – srednja vrednost; SD – standardna devijacija; *_Bonferroni_ test; **ANOVA.

Table 3. The influence of women's attitudes about the benefits of screening on their decision to participate in screening

	Participation in screening									
	Regularly		Irregularly		Never		Total		Statistis	
Attitudes about the benefits of screening	No	%	No	%	No	%	Broj	%	χ^2	p
Positive attitude	4.63	0.60	4.27	0.78	4.05	0.87	115	38.33		
Negative attitude	4.59	0.56	4.12	0.89	4.11	0.92	185	61.67	6.48	0.039
Total	2.75	1.13	2.81	0.89	2.64	1.03	300	100		

Positive attitude > 60% of the total score regarding the attitude about the benefits of screening of CC;
Negative attitude < 60% of the total score regarding the attitude about the benefits of screening.

A high level of motivation was significantly more often associated with decisions to participate in screening regularly (χ^2=13.05; p=0.001) in comparison to women who irregularly participated or who had never participated in CC screening (Table 5).

Discussion

In our study, women, who believed that they were at higher risk of developing CC and that this disease could provoke serious consequences for their health and quality of life, were significantly more often ready to change their behavior and to use the advantages of participation in screening aimed at the early discovery of CC. Authors of numerous studies pointed to the fact that more than 85% of women admitted that the early discovery of CC with the help of Papanicolaou test is an important benefit and they claimed that changes on the cervix are curable due to the earlier discovery (9-12). In our study, 38.3% of women recognized the usefulness of Papanicolaou test for the early discovery of CC, which was in accordance with the number of women who participated regularly in screening. Seow and associates showed that women, who had a previous experience with the Pap test, had a positive attitude towards participating in screening programs in the future (13), which was confirmed n our study, where 44.6% of women who regularly participated in screening had the same attitude.

The majority of women in our study, who participated regularly in the screening program,

Table 4. Women's attitudes about motivational factors regarding the participation in screening

	Participation in screening						Statistics				
	Regularly I N=112		Irregularly II N=131		Never III N=57		I-II	I-III	II-III	I-II-III	
Motivational factors for accepting screening	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	p*	p*	p*	F	p**
I would do the Pap test because in that way I take care of my health	4.37	1.06	3.94	1.11	3.79	1.13	0.008	0.004	1.000	6.93	0.001
I would do the Pap test if my gynecologist demanded	4.32	1.08	3.86	1.18	3.88	1.17	0.006	0.052	1.000	5.58	0.004
I would do the Pap test if close people would advise me to do it	3.25	1.05	3.08	1.09	3.12	1.17	0.653	1.000	1.000	0.79	0.457
I would do the Pap test if I had symptoms	3.88	0.99	3.73	1.04	3.63	1.11	0.793	0.455	1.000	1.19	0.306
I would do the Pap test if somebody in my family or environment developed CC	2.98	1.41	3.11	1.34	3.67	1.21	0.862	0.004	0.017	5.11	0.007

$\bar{x}$ – mean value; SD – standard deviation; *Bonferroni test; **ANOVA.

Tabela 5. Analiza participacije žena u skriningu KGM-a prema stepenu njihove motivacije

Participacija u skriningu										
Motivacija	**Redovno**		**Neredovno**		**Nikada**		**Ukupno**		**Statistika**	
Stav o benefitu participacije u skriningu	**Broj**	**%**	**Broj**	**%**	**Broj**	**%**	**Broj**	**%**	χ^2	**p**
Visok stepen*	68	60,7	53	40,5	21	36,8	142	47,33		
Nizak stepen **	44	39,3	78	59,5	36	63,2	158	52,67	13,05	0,001
Ukupno	112	100	131	100	57	100	300	100		

*Visok stepen motivacije - >60% ukupnog skora na skali motivacije preuzimanja zdravstvene akcije;
**Nizak stepen motivacije - ≤60% ukupnog skora na skali motivacije preuzimanja zdravstvene akcije

Studija sprovedena u Velikoj Britaniji pokazala je da su žene koje su smatrale da su izložene većem riziku od KGM-a bile više motivisane da se uključe u redovan skrining (17). Svoj stav su bazirale na prodičnoj istoriji karcinoma i bile su sigurne da kod njih postoji genetska predispozicija. U našoj studiji, žene koje nisu nikada ili koje su neredovno učestovale u skriningu bile bi značajno više pozitivno motivisane da se uključe u skrining program KGM-a ako bi neko u njihovoj porodici ili okolini oboleo od KGM-a, u odnosu na žene koje redovno učestvuju u ovom skriningu. Smatra se da su žene koje su doživele KGM u svojim porodicama svesnije ozbiljnosti bolesti (6).

Brojna istraživanja govore o benefitu i ograničenjima Papanikolau skrining testa. Nijedan skrining test, pa tako ni Papanikolau test, nema 100% senzitivnost i 100% specifičnost. To znači da rezultati skrining testa mogu da budu lažno pozitivni i lažno negativni. Zato se svaka osoba koja je skriningom označena pozitivno podvrgava određenoj dijagnostičkoj proceduri. Upravo ove činjenice treba da bude svesna svaka žena koja se podvrgava skrining testu. Takođe, često se dešava da neke žene sa abnormalnim promenama mogu biti povrgnute intervenciji iako date promene nikada ne bi progredirale i ne bi uzrokovale simptome i smrt tokom njihovog života (engl. *overdiagnosis*) (18). S druge strane, korist od skrining testa je ogromna, jer doprinosi ranom otkrivanju KGM-a i to pre pojave simptoma, što doprinosi redukciji umiranja i unapređenju kvaliteta života.

I pored malog broja ispitanika obuhvaćenih ovom studijom, dobijeni rezultati su od izuzetne važnosti u cilju sagledavanja načina da se unapredi sprovođenje organizovanog skrininga za KGM, odnosno da se žene ohrabre da redovno učestvuju u skrining programima. Neophodno je da se sve žene starosti od 25 do 64 godine podvrgnu Papanikolau testu i to najpre dve godine za redom, a nakon toga, ako su ta dva rezultata bila uredna, da nastave sa pregledima na svake tri godine.

Zaključak

Žene sa pozitivnim stavom o benefitu skrininga značajno češće se podvrgavaju skriningu nego žene sa negativnim stavom. Redovni preventivni pregledi bi doprineli nižoj stopi mortaliteta od KGM-a, a kasnije i incidencije, što je glavni prioritet zdravstvene službe.

Literatura

1. The European Network of Cancer Registries ENCR, 2016.
2. Oranratanaphan S, Amatyakul P, Iramaneerat K, Srithipayawan S. Knowledge, attitudes and practices about the Pap smear among medical workers in Naresuan University Hospital. Thailand. Asian Pac J Cancer Prev 2010; 11:1727-30.
3. Nacionalni program organizovanog skrininga za rak grlića materice. Republička stručna komisija za prevenciju i kontrolu raka grlića materice, 2013.
4. Matejić B, Vuković D, Pekmezović T, Kesić V, Marković M. Determinants of preventive health behavior in relation to cervical cancer screening among the female population of Belgrade. Health Educ Res 2011; 26(2):201-211,
5. Glanz K, Rimer BK, Lewis FM. Health behavior and health education: theory, research, and practice, (3rd ed). New Jersey: Jossey-Bass, 2002.
6. Hoque M, Ibekwe CM, Ntuli-Ngcobo B. Screening and perceived severity of cervical cancer among women attending Mahalapye District Hospital, Botswana, APJPH2009; 10(6):1095-1100.
7. Urrutia MT, Araya A, Rivera S, Viviani SP, Villarroel L. A predictive model for the quality of sexual life in hysterectomized women. Rev Med Chile 2007; 135(3):317-325.

Table 5. The analysis of women's participation in screening of cervical cancer according to the level of their motivation

	Participation in screening									
	Regularly		Irregularly		Never		Total		Statistis	
Motivation	Np	%	No	%	No	%	No	%	χ^2	p
High level*	68	60.7	53	40.5	21	36.8	142	47.33		
Low level **	44	39.3	78	59.5	36	63.2	158	52.67	13.05	0.001
Total	112	100	131	100	57	100	300	100		

*High level of motivation - >60% of the total score on the motivation scale of taking health action;
**Low level of motivation - ≤60% of the total score on the motivation scale of taking health action.

believed significantly more often that the conversation with a gynecologist would motivate them to undergo screening in comparison to women who irregularly participated in screening or who had never participated in it. In literature, we find that the significance of good communication between a gynecologist and patient is an important motivator and stimulant for the participation in screening (14-16). In two studies conducted in the USA, 59% of Latin Americans (14) and 58% of Chinese Americans believed that the gynecologist should recommend them the Papanicolaou screening test, before they undergo it (15).

A study conducted in the UK showed that women who thought that they were exposed to greater risk of CC were more motivated to participate in regular screening (17). Their attitude was based on family history of cancer and they were sure that they had a genetic predisposition. In our study, women who had never participated in screening or who participated irregularly were significantly more positively motivated to take part in the screening program of CC, if somebody from their family or environment got CC, in comparison to women who regularly participated in this screening. It is believed that women who experienced CC in their families were more aware of the seriousness of this disease (6).

Numerous studies speak about benefits and limitations of the Papanicolaou screening test. There are no screening tests which have 100% sensitivity and 100% specificity, including the Papanicolaou test. This means that the results of this screening test can be false positive and false negative. Therefore, each person that is marked as positive should undergo a certain diagnostic procedure. Each woman who undergoes the screening test should be aware of the fact. Also, it often happens that some women with abnormal changes could be subjected to interventions, although these changes would never progress and would not cause symptoms and death during their lifetime (overdiagnosis) (18). On the other hand, the benefit of screening test is huge because it contributes to the early discovery of CC before the appearance of symptoms, which contributes to the reduction of dying and improvement of quality of life.

Although this study included the small number of respondents, the obtained results are of utmost significance aimed at finding ways to improve the organized screening programs, that is, to encourage women to participate regularly in screening programs. All women aged 25 to 64 years should necessarily undergo the Papanicolaou test, at first two years in a row, and after that, if those two results had no abnormality detected, they should continue with examinations every three years.

Conclusion

Women with a positive attitude towards the benefits of screening undergo screening significantly more often than women with a negative attitude. Regular preventive examinations would contribute to lower cervical cancer mortality rate, and later to lower incidence, which is the main priority of healthcare services.

8. Leyva M, Byrd T, Tarwater P. Attitudes towards cervical cancer screening: A study of beliefs among women in Mexico. CJHP 2006; 4(2):13-24,
9. Jirojwong S, Maclennan R, Manderson L, Health beliefs and Pap smears among Thai women in Brisbane, Australia. APJPH 2001; 13(1):20-23.
10. Holroyd E, Taylor Piliae RE, Twinn SF. Investigating Hong Kong's Filipino domestic workers' healthcare behavior, knowledge, beliefs and attitudes towards cervical cancer and cervical screening, Women Health 2003; 38(1):69-82.
11. Moreland S, Engelman K, Greiner KA, Mayo MS. Papanicolaou testing among Native American and Hispanic populations, Ethn Dis 2006; 16(1):223-227.
12. Byrel TL, Peterson SK, Chavez R. Cervical cancer screening beliefs among young Hispanic women. Prev Med 2004; 38:192-197.
13. Seow A, Wong ML, Smith WCS, Lee HP. Beliefs and attitudes as determinants of cervical cancer screening: a community-based study in Singapore. Prev Med 1995; 24:134-41.
14. Fernandez Esquer ME, Cardenas Turanza M. Cervical cancer screening among Latinas recently immigrated to the United States. Prev Med 2004; 38:529-535.
15. Taylor VM, Jackson JC, Tu SP, Yasui Y, Schwartz SM, Kuniyuki A. Cervical cancer screening among Chinese Americans. Cancer Detec Prev 2002; 26(2):139-145.
16. Eunice E, Lee, Fogg L, Menon U. Knowledge and Beliefs Related to cervical cancer and screening among Korean American women. West J Nurs Res 2008; 30(8): 960–974.
17. Armstrong N, Eborall H. Resistance through risk: Women and cervical cancer screening. Health Risk Soc 2005; 7(2):161-176.
18. Hakama M, Pokhrel A, Malila N, Hakulinen T. Sensitivity, effect and overdiagnosis in screening for cancers with detectable pre-invasive phase. Int J Cancer 2015; 136: 928-935.

Sukob interesa: Nije prijavljen.
Primljen: 12.09.2021.
Revizija: 28.09.2021.
Prihvaćen: 02.10.2021.

Autor za korespondenciju: dr sci. med. Vesna M. Jovanović, Visoka zdravstvena škola, Akademija strukovnih studija Beograd, Cara Dušana 254, 11000 Beograd, Srbija; e-mail: vesna72.jovanovic@gmail.com

Literature

1. The European Network of Cancer Registries ENCR, 2016.
2. Oranratanaphan S, Amatyakul P, Iramaneerat K, Srithipayawan S. Knowledge, attitudes and practices about the Pap smear among medical workers in Naresuan University Hospital. Thailand. Asian Pac J Cancer Prev 2010; 11:1727-30.
3. Nacionalni program organizovanog skrininga za rak grlića materice. Republička stručna komisija za prevenciju i kontrolu raka grlića materice, 2013.
4. Matejić B, Vuković D, Pekmezović T, Kesić V, Marković M. Determinants of preventive health behavior in relation to cervical cancer screening among the female population of Belgrade. Health Educ Res 2011; 26(2):201-211,
5. Glanz K, Rimer BK, Lewis FM. Health behavior and health education: theory, research, and practice, (3rd ed). New Jersey: Jossey-Bass, 2002.
6. Hoque M, Ibekwe CM, Ntuli-Ngcobo B. Screening and perceived severity of cervical cancer among women attending Mahalapye District Hospital, Botswana, APJPH2009; 10(6):1095-1100.
7. Urrutia MT, Araya A, Rivera S, Viviani P, Villarroel L. A predictive model for the quality of sexual life in hysterectomized women. Rev Med Chile 2007; 135(3):317-325.
8. Leyva M, Byrd T, Tarwater P. Attitudes towards cervical cancer screening: A study of beliefs among women in Mexico. CJHP 2006; 4(2):13-24,
9. Jirojwong S, Maclennan R, Manderson L, Health beliefs and Pap smears among Thai women in Brisbane, Australia. APJPH 2001; 13(1):20-23.
10. Holroyd E, Taylor Piliae RE, Twinn SF. Investigating Hong Kong's Filipino domestic workers' healthcare behavior, knowledge, beliefs and attitudes towards cervical cancer and cervical screening, Women Health 2003; 38(1):69-82.
11. Moreland S, Engelman K, Greiner KA, Mayo MS. Papanicolaou testing among Native American and Hispanic populations, Ethn Dis 2006; 16(1):223-227.
12. Byrel TL, Peterson SK, Chavez R. Cervical cancer screening beliefs among young Hispanic women. Prev Med 2004; 38:192-197.
13. Seow A, Wong ML, Smith WCS, Lee HP. Beliefs and attitudes as determinants of cervical cancer screening: a community-based study in Singapore. Prev Med 1995; 24:134-41.
14. Fernandez Esquer ME, Cardenas Turanza M. Cervical cancer screening among Latinas recently immigrated to the United States. Prev Med 2004; 38:529-535.
15. Taylor VM, Jackson JC, Tu SP, Yasui Y, Schwartz SM, Kuniyuki A. Cervical cancer screening among Chinese Americans. Cancer Detec Prev 2002; 26(2):139-145.
16. Eunice E, Lee, Fogg L, Menon U. Knowledge and Beliefs Related to cervical cancer and screening among Korean American women. West J Nurs Res 2008; 30(8): 960–974.
17. Armstrong N, Eborall H. Resistance through risk: Women and cervical cancer screening. Health Risk Soc 2005; 7(2):161-176.
18. Hakama M, Pokhrel A, Malila N, Hakulinen T. Sensitivity, effect and overdiagnosis in screening for cancers with detectable pre-invasive phase. Int J Cancer 2015; 136: 928-935.

Conflict of interest: None declared.
Received: 09/12/2021
Revised: 09/28/2021
Accepted: 10/02/2021

Corresponding author: dr sci. med. Vesna M. Jovanović, Academy of Applied Studies, The College of Health Sciences, Cara Dušana 254, 11000 Belgrade, Serbia; e-mail: vesna72.jovanovic@gmail.com