

Perceived self-efficacy and breast self-examination in women from Monteria (Colombia)

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Abstract

Introduction: The breast self-examination practice can be influenced by perceived self-efficacy. This individual characteristic, defined as confidence in one's abilities to achieve a goal, can positively help women develop health-promoting behaviors that lead them to carry out routine and regular practices for the early detection of breast cancer.

Objective: To determine the level of perceived self-efficacy and its relationship to the adequate practice of BSE in women over 20 years of age in Montería, Colombia.

Materials and methods: Analytical study, with 867 women aged 20 years or older, selected by multi-stage random sampling. A sociodemographic survey was used for data collection, the overall self-efficacy scale and a questionnaire to measure the BSE practice. The data was stored in a Microsoft Excel spreadsheet and processed in SPSSS version 24.

Results: 867 women participated, with a mean age 36.2 years (SD = 13.0). 72.6% (629) did a BSE. Only 2% (20) of the participants practice it adequately. The BSE practice was greater in women with a higher level of self-efficacy (86.2%).

Conclusions: In Montería, women over 20 years of age practice BSE inappropriately, which contrasts with a high level of self-efficacy. This factor is essential to improve health care practices and conduct them on a regular basis.

Key words: self-efficacy; breast self-examination; practices; breast neoplasms.

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Autoeficacia percibida y autoexamen de mamas en mujeres de Montería (Colombia)

Resumen

Introducción: La práctica del autoexamen de mamas puede estar influida por la autoeficacia percibida. Esta característica individual, definida como la confianza en las propias capacidades para alcanzar una meta, puede ayudar de forma positiva a que las mujeres desarrollen conductas promotoras de salud y realicen prácticas de cuidado rutinarias y regulares para la detección temprana del cáncer de mama.

Objetivo: Determinar el nivel de autoeficacia percibida y su relación con la práctica adecuada del AEM en mujeres mayores de 20 años de Montería (Colombia).

Materiales y métodos: Estudio analítico, con 867 mujeres mayores de 20 años, seleccionadas por muestreo aleatorio multietápico. Se utilizó una encuesta sociodemográfica para la recolección de información, la Escala de Autoeficacia General Percibida y un cuestionario para medir la práctica del AEM. Los datos se almacenaron en una hoja de cálculo de Microsoft Excel y fueron procesados en el programa SPSSS, versión 24.

Resultados: Participaron 867 mujeres, con una edad promedio 36,2 años (DE = 13,0). El 72,6% (629) se practica el AEM. Solo el 2% (20) de las participantes lo hacen de forma adecuada. La práctica del AEM fue mayor en mujeres con un mayor nivel de autoeficacia (86,2%).

Conclusiones: En Montería, las mujeres de más de 20 años de edad practican de forma inadecuada el AEM, lo que contrasta con un alto nivel de autoeficacia. La autoeficacia es fundamental para mejorar la prácticas de cuidado de la salud y desarrollarlas de forma regular.

Palabras clave: autoeficacia; autoexamen de mamas; prácticas; neoplasias de la mama. (Fuente: DeCS).

Auto-eficácia percebida e auto-exame da mama nas mulheres em Montería (Colômbia)

Resumo

Introdução: A prática do auto-exame da mama pode ser influenciada pela percepção de auto-eficácia. Esta característica individual, definida como confiança nas próprias capacidades para atingir um objetivo, pode ajudar positivamente as mulheres a desenvolver comportamentos de promoção da saúde e a envolver-se em práticas de cuidados de rotina e regulares para a detecção precoce do câncer de mama.

Objetivo: Determinar o nível de auto-eficácia percebido e a sua relação com a prática adequada da AEM em mulheres com mais de 20 anos de idade em Montería (Colômbia).

Materiais e métodos: Estudo analítico, com 867 mulheres com mais de 20 anos de idade, selecionadas por amostragem aleatória em várias fases. Foi utilizado um inquérito sociodemográfico para recolher informação, a Escala Geral de Auto-Eficácia Percebida e um questionário para medir a prática da AEM. Os dados foram armazenados numa folha de cálculo Microsoft Excel e processados em SPSSS, versão 24.

Resultados: 867 mulheres participaram, com uma idade média de 36,2 anos (SD = 13,0). 72,6 % (629) dos participantes praticaram AEM. Apenas 2 % (20) dos participantes o fazem de forma adequada. A prática da AEM foi mais elevada nas mulheres com um nível superior de auto-eficácia (86,2%).

Conclusões: Em Monteria, as mulheres com mais de 20 anos de idade praticam inadequadamente a AEM, o que contrasta com um elevado nível de auto-eficácia. A auto-eficácia é fundamental para melhorar as práticas de cuidados de saúde e desenvolvê-las numa base regular.

Palavras-chave: auto-eficácia; auto-exame de mama; práticas; neoplasias mamárias

INTRODUCTION

Breast self-examination (BSE) has become one of the most recommended techniques to help detect cancer at an early stage since it provides women with a tool based on self-care and individual empowerment, which allows them to have a suspicion of the disease and access to an early diagnosis, while favoring the start of timely treatment, and thus, impacting positively the quality of life and reducing the possible negative effects that emerge from invasive therapies due to late diagnoses (1-3).

The foregoing is relevant for nursing professionals who promote this type of practice from their health risk management role. Nola Pender's approaches, stated in the Health Promotion Model, highlight the importance of the active intervention of nurses for the acquisition of adequate behavioral patterns that help individuals to control and modify unhealthy actions and to overcome personal and interpersonal situations that limit greater practice of health-promoting behaviors (4).

A core element of this theoretical model proposed by Pender is self-efficacy, which is based on the statements made by Bandura (1), who considers that people with high self-efficacy, that is, those who believe and trust that they can have a good performance, are more likely to view difficult

tasks as something to be mastered rather than something to be avoided. This personal characteristic positively helps women develop health-promoting behaviors that lead to routine and regular care practices, especially those related to regular breast examinations for the early detection of alterations suggestive of cancer.

Due to its high impact, breast cancer prevention is a public health priority. In less developed regions, this disease is the main cause of death in women. reaching 14.3% of all annual deaths (324,000). A similar behavior has been seen in the more developed regions: it is the second leading cause of cancer death (198,000 accounting for 15.4% of all deaths) (5). The reports of the Pan American Health Organization in 2020 informed that there were more than 210,000 newly diagnosed cases of breast cancer and around 68,000 deaths in Latin America and the Caribbean (5). In Colombia, the International Agency for Research on Cancer reported that in 2018 more than 13,000 new cases of breast cancer were diagnosed and more than 3,000 deaths occurred (6). This trend is similar in many of the departments of the Colombian north coast. As for the department of Córdoba, 29 new cases of breast cancer were registered in 2020, according to data from the Ministry of Health (7). In Colombia, the Strategies for the early identification of breast cancer are guided based on three main fronts: early detection without screening, opportunity screening,

and scheduled screening. Healthy behaviors and lifestyles that favor self-care are promoted among women at risk within the framework of these strategies (8,9). Regular BSE practice is considered a health promoting habit, and its performance is influenced by different factors, including perceived self-efficacy, which is directly and proportionally related to the probability of committing to action and portraying a health promoting behavior, overcoming the possible barriers (10). Cancino Flores (11) has reported that the BSE practice increases proportionally and positively with the level of self-efficacy; likewise, that perceived self-efficacy is a determining factor in reducing and eliminating the barriers associated with adopting a health-promoting behavior, which helps make healthier decisions and acquire better care habits (12).

During the review, no research that reported the measurement of self-efficacy and its relationship with the BSE practice was found in the department of Córdoba; therefore, this study set out to determine the level of perceived self-efficacy and adequate BSE practice in women over 20 years of age in Montería (13,14).

MATERIALS & METHODS

This was an analytical cross-sectional study that included 867 women over 20 years of age from Montería (capital of the department of Córdoba,

Colombia). This sample was calculated taking a reference population of 156,928 women, a confidence interval of 95% and a margin of error of 3.5%.

A sociodemographic survey designed by the authors was used for data collection, which allowed classifying the participating women. Perceived self-efficacy was measured using the Spanish version of the General Self-Efficacy Scale proposed by Baessler and Schwarzer and validated by Espada in Spain, where good psychometric behavior was observed (Crombach's alpha = 0.88). This scale incorporates 10 items with points from 10 to 40 and Likert-type responses that assess the ability perceived at the time, as follows: incorrect (1 point); barely true (2 points); rather true (3 points) or true (4 points) (15,16).

The second tool used was the section to assess the BSE practice, adapted by Castillo et al. (17) in Cartagena (Colombia), which consists of fourteen questions. The first two inquire the source of information of the self-examination and the remaining twelve evaluate the technique and frequency of performance, as well as the benefits, barriers and influences perceived in the BSE (18). The women were selected by sampling in several stages, that is, by means of a stratified sampling with proportional allocation according to the number of women per city commune. Then, the neighborhoods and sectors of each commune where the women were contacted house to

house were chosen by simple random sampling; one woman was chosen per house.

The data was stored in Microsoft Excel® and processed in the SPSSS statistical program, version 23. A descriptive analysis was made. Measures of central tendency were calculated for the numerical data and, in addition, a correlation plan was made for the two main variables: self-efficacy and self-examination practice. For the analysis, they were dichotomized into high and low perceived self-efficacy and adequate and inadequate BSE practice.

This research follows the ethical parameters set forth in Resolution 00843 of 1993 issued by the Ministry of Health of Colombia, according to which it could be classified as minimal risk (13). The principles of autonomy for participation were respected, as well as the decision of each woman to complete the questionnaire anonymously, prior to obtaining written informed consent and an explanation of the study scope and objectives. The research was approved by the Research Committee of the Faculty of Nursing of the University of Cartagena (Colombia) for its subsequent conduction.

RESULTS

867 women over 20 years of age participated. The mean age of the participants was 36.2 years (SD = 13.0). Regarding the marital status, com-

mon-law-marriage predominated with 34.8%; 50% (n = 433) were housewives, and 16.4% (n = 114) were students. The educational level that prevailed was full high school in 46.5% (n = 404). It should be noted that 2.2% (n = 19) had no studies or that 11.1% (n = 96) do not exceed the basic primary level of academic education. Most of the participating women are from low socio-economic strata, mostly from stratum 1 (86.8%; n = 753) and, therefore, are affiliated with a health care system supported by subsidies (75.4%; n = 654), and some do not even report any type of health affiliation (0.2%; n = 2), as shown in Table 1.

Table 1. Distribution according to the sociodemographic variables of the participating women, Montería (Colombia), 2015

Marital Status	n	%
Married	251	28.9
Divorced	39	4.5
Separated	92	10.6
Single	152	17.6
Common-law-marriage	301	34.8
Widow	32	3.7
Education Level	n	%
No studies	19	2.2
Incomplete elementary	96	11.1
Complete elementary	36	4.2
Incomplete high school	38	4.4
High school	404	46.5
Technician	139	16.1

Education Level	n	%
Technologist	50	5.8
University degree	85	9.8
Occupation	n	%
Housewife	433	50.0
Unemployed	112	12.9
Employee	110	12.7
Student	143	16.4
Independent	69	8.0
Socio-economic Level	n	%
1	753	86.8
2	114	13.2
Social Security	n	%
Contributive	143	16.5
Special	68	7.9
Subsidized	654	75.4
Associated	2	0.2

Perceived general self-efficacy of participating women

Regarding the self-efficacy variable, it was determined that 84.8% (n = 734) of the participating women had high self-efficacy and that only 15.2% (n = 132) were part of the low perceived self-efficacy group.

As for the adequate BSE practice, it was possible to see that 72.6% (n = 629) of the participants stated that they had done it; while 27.4% (n = 238) had never done it. These participants state that it is not necessary, with 7.62% (n = 66); 7.27% (n = 63) are lazy; 4.96% (n = 43) do not

do it due to lack of time, and 3.46% (n = 30) do not know how to do it.

Moreover, when evaluating the frequency of self-examination, it was determined that 61.9% (n = 536) reported doing it once a month. When asked about the moment of the menstrual cycle chosen for the BSE, 39.6% (n = 343) of the women stated doing it after the end of menstruation. It is noteworthy that 27.5% (n = 239) of the participants say they do it daily and that only a small percentage of them (17.2%; n = 149) acknowledge doing it from day 4 to 10 since the first day of menstruation (Table 2).

Table 2. Distribution of the BSE practice in participating women, Montería (Colombia), 2015

Do you do the BSE?	n	%
No	238	27.4
Yes	629	72.6
How often do you do the BSE?	n	%
Yearly	60	6.9
Monthly	536	61.9
Never	49	5.7
Bimonthly	75	8.5
Weekly	147	17.0
What days do you do the BSE?	n	%
Daily	239	27.5
Day 4 to 10 since day 1 of menstruation	149	17.2
8 days after menstruation	136	15.7
Once a month after menstruation	343	39.6

What technique do you use for the BSE?	n	%
Observation	139	16.1
Palpation	421	48.5
Both techniques	307	35.5
Do you examine your nipples?	n	%
No	337	38.9
Yes	530	61.1

When the variables established by the Colombian technical standard for an adequate self-examination are combined, it was found that only 2% (n = 20) of the women had this combination of variables: adequate technique, adequate frequency, adequate cycle time and inclusion of the nipple in the self-examination.

Perceived self-efficacy and BSE practice

A higher proportion of women with high self-efficacy was observed among those who practice self-examination (86.2%), compared to those who stated not doing it (81.0%). Although this difference is not statistically significant (chi square = 0.06), when women with an adequate BSE practice are classified, only 20 women meet all the recommendations for self-examination: time, technique and frequency. Of these, 70% (n=14) have a high level of self-efficacy, and only 30% have a low level of self-efficacy (Table 3).

Table 3. Correlation between the level of perceived self-efficacy and BSE practice.

Do – BSE	Self-efficacy			Chi square	
	High	%	Low	%	
Yes	542	86.2	87	13.8	0.06
No	192	81.0	45	19.0	
Total	734	84.8	132	15.2	

DISCUSSION

According to this study, it was determined that although a significant percentage of women in Montería practice BSE, the way is not adequate since they do not consider the correct frequency and technique, which is in correspondence with the investigation of Puttahraksa (19), in which, after studying the perceived self-efficacy, knowledge and practice of BSE at University of Asunción, no correlation was found between knowledge and practice, and that women had low self-efficacy and inadequate practice.

Another aspect that stands out is that the inhabitants of the municipality of Montería do not know at what point of the menstrual cycle to conduct the BSE. All these factors are opportunities for health risk management institutions to develop health promotion programs aimed at providing guidance and educational instruction that strengthens

knowledge about self-examination and favors a more effective practice among women.

When analyzing the sociodemographic variables of the participants, we found that most of them were of strata 1 and 2; therefore, they are considered part of a vulnerable population. The foregoing is in correspondence with the data from the 2015 National Demographics and Health Survey, which shows that women with higher educational level and in higher income quintiles show greater clarity regarding self-examination, the technique to perform it and a better practice. (14). In this sense, the information obtained can be considered pertinent since it constitutes an important factor for proposing more inclusive and diverse strategies that allow different populations to have more access and opportunities to health care and attention processes.

It is necessary for women to be informed about the importance of early diagnosis of breast cancer and its influence on healing and long-term life expectancies. This also influences the degree of acceptance and compliance with care practices, based on reasoned plans and programs that women can set as a commitment to their own health and which, in turn, increase the chances of accessing an early diagnosis., as highlighted by the Nola Pender Health Promotion Model (20). The study participants are young women, of whom 75% have poor knowledge about the BSE practice. These results contrast with those obtained by Castillo et al. (17), who found that the age group that performs the BSE most frequently is that of women between 25 and 35 years of age. According to Pender, age is the personal variable that plays an important role on behavior and the affects related to it. The accumulation of previous personal experiences related to health care can determine the actions programmed to promote healthy behaviors.

It is worth mentioning that most of the women in the study group are young women in extensive and frequent contact with health care services, so you would expect them to receive information on issues related to sexual and reproductive health when they attend medical appointments. This can provide them with greater opportunities to obtain clear and quality information from health care professionals and to improve guidelines on healthy habits that enable the adoption of behaviors such as a correct BSE practice (17).

An important fact derived from this study is that only 5.5% of the participating women did the self-examination at the time of the recommended menstrual cycle. This contrasts significantly with what is stated in the national technical standard for the early detection of breast cancer. Breast self-examination as a technique performed by the

woman herself must comply with the periodicity (monthly) and with the right moment of the cycle (from the fourth to the tenth day from the first day of menstruation), which avoids the pain derived from the examination at the moment of the cycle in which the breasts are inflamed and the alert of false-positive findings due to hormonal alterations (8,20).

It stands out that 2% of women conduct an adequate BSE practice and thus have a significant level of self-efficacy. This allows them to have a favorable image of themselves. This perception favors an efficient action in the presence of risk factors because self-efficacy results in a conviction or strong belief that one has the necessary and sufficient skills and capabilities to carry out specific individual actions for the benefit of health, which could influence a better practice of self-examination among these women (15,17).

The Nola Pender Health Promotion Model is an important tool for health care professionals, especially for the nursing field, as it allows a better understanding of health-related behaviors and, through its postulates, helps design strategies to motivate different populations to adopt care behaviors that make it possible to acquire healthy lifestyles (16,21,22).

Based on the study outcomes, the conclusion is that a higher level of perceived self-efficacy

is associated positively to a regular BSE practice because at the moment in which women feel capable of making decisions and carrying out healthy practices, they strengthen their self-care, which helps maintain health and detect chronic diseases at an early stage. Self-efficacy can be an important factor to help the women of Montería to take action to care for their health and overcome possible barriers that may arise, as it will increase their ability to transform adverse situations into opportunities for development and perseverance. This will contribute to increasing their emotional well-being, confidence and quality of life, self-care and self-esteem.

The main study limitation is related to the fact that there is a very low proportion of women who do the self-examination adequately, which does not allow establishing with statistical estimators, if there is an association between self-efficacy and the adequate practice of self-examination.

The Nursing field should strengthen health promotion and health risk management programs that promote women's health care, including appropriate practices for doing the BSE, which in turn promotes knowledge of the breast, its structure, surface and possible changes that require assessment by specialized personnel. The need for information on self-examination among women over 20 years of age implies a large field of action for nursing professionals. From a health promotion

approach and using the discipline paradigms as a basis, intervention programs that promote this type of practice and guarantee greater well-being and quality of life for individuals, families and communities can be established.

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CONFLICTS OF INTERESTS

None.

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