

## Utilization of Iranian Women Health Services (SABA) in the West of Iran: An Application of Social Cognitive Theory

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**Abstract:** Availability of and access to quality health care services directly affects all aspects of women's health. The objective of this study was to determine factors related to intention of Iranian women health services (SABA services) utilization based on the Social Cognitive Theory (SCT). This cross-sectional study was conducted on 800 married women aged 30-60 years old in the West of Iran were randomly selected to participate voluntarily in the study. Participants filled out a self-administered questionnaire including the expanded social cognitive theory components. Data were analyzed by SPSS version 21 using t-test, One-way ANOVA, bivariate correlation as well as linear regression and at 95% significant level. SCT variables were statistically significant for predicting intention of SABA services utilization which they were accounted for 38% of the variation in intention of SABA services utilization (Adjusted  $R^2 = 0.38$ ,  $F = 105.296$  and  $p < 0.001$ ). The findings indicated, attitude, subjective norms, outcome expectation and self-efficacy were better predictors of intention of SABA services utilization among Iranian women's.

**Key words:** Health services, utilization, social cognitive theory, attitude, Iranian

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### INTRODUCTION

Availability of health care services is an essential issue to organizations offering healthcare services as easy, frequent access to health care services in a society has been known as one of the most important solutions to gain social justice and equality in medical systems all over the world (Mohammadpour *et al.*, 2003). Therefore, policy makers in health care sector in each country aim to facilitate people's access to health care services so that all groups in a society can use the services properly (Heidari and Sherbaf, 2005). People ability to use health care services has been known as a fundamental right and a social goal which means that all people have the right to receive health care services unless they do not need those (Gulliford and Morgan, 2013). Understanding the experience of access to health services is a helpful step to customer orientation to avoid selfishness among health care staff since using clients' points of view about services is essential to plan and organize availability of health services (Rajati *et al.*, 2011). Also, considering high

expenses of health care, expectations of clients, limited budget dedicated to this sector, the need to newer organizational structure, fear of weak governing, inefficient bureaucratic procedures and ineffectiveness made the government pay attention to frugality, efficiency, effectiveness and, as the result, proper management of resources (Eriotis *et al.*, 2011). On the other hand, since women are foundations of health, progress and development in families and society, it is necessary to take a close look at their health; women health covers various dimensions including physical, mental, social, cultural and spiritual health which is affected by social, economical, political and biologic factors. Women define family health and their absence, inability due to physical and spiritual problems and their behaviors affect all aspects of family health (Cohen, 1998). In Iran, SABA program (Iranian women health program) was developed to generally improve middle age women (30-59 years old). The goals of the program includes: improving knowledge and skill of health care providers for middle age women (30-59 years old), expanding health

care services among middle age women (30-59 year old) and increasing knowledge of health problems and their treatments among the target group (women aging 30-59). Also, offering comprehensive health care services (preventive and early detection), control interventional risk factors at the individual level and training and consulting to empower and improve behavior and promoting lifestyle and enhancing self-care have been considered as program strategies. And proper execution of the program could a critical point to women to plan a healthy life. Knowledge of health experts and having theory based approaches to find the reasons why people do not use health services and the beliefs relative to advantages, barriers and expectations to services could be helpful to experts to offer better services and also, encourage the society to use existent services. Studies on the field showed that the most efficient programs were theory based and rooted from behavior change patterns (Kok, 2014). Studies have also shown that the studies based on psychology and social psychology theories have a valuable role in creating programs impacting health promotion (Morowatishaifabad *et al.*, 2015; Baghiani *et al.*, 2012; Jalilian *et al.*, 2015; Ataee *et al.*, 2014). One of the most comprehensive theories used to analyze determiners of personal and environmental behaviors is Social Cognitive Theory. This theory was only developed to investigate human mental structures and processes. However, conditional theories locate at the other end of the continuum and focus on the effects of environmental factors on forming human behavior (Eldredge *et al.*, 2016). To respond to inefficiency of both groups mentioned to describe human behaviors, Albert Bandura made use of cognitive psychology concepts and mixed them with principles of observational learning theory to introduce social cognitive theory; this theory tries to explain human behavior as a two-way triple cause. To do so, behavior is considered in the center of a triangle where individual, environmental and behavioral factors locate at the angles and are related to each other two by two (Ginis *et al.*, 2011). Like any other behavior psychology theories, social cognitive theory includes several components and the most important ones are: knowledge, outcome expectations, evaluating consequences, situational perception, environment, self-efficacy, self-regulation and emotional coping.

Although this theory was able to explain and analyze various human behaviors, the large number of its components caused researchers to consider the behavior and other practical and scientific aspects to choose certain components in order to analyze and intervene (Eldredge *et al.*, 2016). Considering the importance of the issue and lack of information about effective factors on using SABA services in Iran, the present study made use of social cognitive theory to determine predictors to using Iranian women health (SABA) services West of Iran.

## MATERIALS AND METHODS

The study was a part of a project ordered by Iranian Ministry of Health (Bureau of Population, Family and School Health) conducted among Iranian women's, during 2016 with the goal of providing knowledge for the utilization of Iranian women health services (SABA). This cross-sectional study was conducted among 800 married women aged 30-60 years who were residents of the cities of Ravansar (in Kermanshah province) and Asad-Abad (in Hamedan province), in West of Iran. To include the participants, firstly the health centers of the Ravansar and Asad-Abad were recognized and each center was considered as a cluster. Then, using simple random sampling method with the sample proportional to size the subjects were selected in each cluster by using the medical records of the residents available at the centers. This research has been approved by the institutional review board at the Kermanshah University of Medical Sciences (KUMS.REC.1394.449).

**Measures:** Prior to conducting the main project, a pilot study was done to assess the utility of the instrument. The pilots study participants were 30 women's, similar to those who participated in the main study. The pilot study was conducted to obtain feedback about the clarity, length, comprehensiveness and completion time of the various instruments as well as collecting data to estimate the internal consistency of the measures.

**Demographics scale:** Background data gathered included age, marital status (single, married, others), educational level (primary school, secondary school, high school, academic), economic status (very poor, poor, average, good, very good), have an insurance (yes, no) and have a chronic disease (yes, no).

**Predictive variables (Social Cognitive Theory):** In order to achieve, the factors affecting the utilization of health services among participants, a research team carried out a comprehensive literature review as well as interviews with 30 women's who were similar to study population. Data analysis showed, factors such as (attitude towards utilization of SABA services; outcome expectation towards utilization of SABA services; barrier related to utilization of SABA services; subjective norms related utilization of SABA services; behavioral intention toward utilization of SABA services; self-efficacy to utilization of SABA services and cause to action related to utilization of SABA services, were effective on utilization of health services. These factors were designed based on social cognitive theory standard questionnaires (Janicke and

Table 1: Predictor variables of intention of SABA services utilization based on bivariate correlation analysis

Variables	Mean (SD)	Scores range	X <sup>1</sup>	X <sup>2</sup>	X <sup>3</sup>	X <sup>4</sup>	X <sup>5</sup>	X <sup>6</sup>
X <sup>1</sup> : Attitude	11.54 (2.22)	3-15	1.000					
X <sup>2</sup> : Outcome expectation	11.61 (2.15)	3-15	0.708**	1.000				
X <sup>3</sup> : Perceived barrier	15.74 (4.62)	6-30	-0.398**	-0.327**	1.000			
X <sup>4</sup> : Self-efficacy	6.35 (1.99)	2-10	0.189**	0.148**	-0.465**	1.000		
X <sup>5</sup> : Subjective norms	14.55 (2.93)	4-20	0.420**	0.399**	-0.248**	0.068	1.000	
X <sup>6</sup> : Cause to action	1.85 (1.20)	0-5	0.100**	0.115**	-0.0149**	0.001	0.258**	1.000
X <sup>7</sup> : Intention	11.66 (2.02)	3-15	0.484**	0.492**	-0.251**	0.196**	0.485**	0.101**

\*\*Correlation is significant at the 0.01 level (2-tailed)

Table 2: SCT variables which were predictor intention of SABA services utilization

Variables	B	SE B	$\beta$	t-values	p-values
Attitude	0.158	0.042	0.169	3.740	0.001
Outcome expectation	0.221	0.042	0.234	5.265	0.001
Subjective norms	0.231	0.024	0.322	9.530	0.001
Self-efficacy	0.120	0.032	0.114	3.710	0.001

SE = Standard Error, Final Model: Step 3; Adjusted R<sup>2</sup> = 0.38, F = 105.296 and p<0.001

Finney, 2003; Godin *et al.*, 2008; Janicke *et al.*, 2001). Prior to conducting the main project, a pilot study was conducted to assess the content validity of the questionnaires. The pilot study participants comprised 30 women's, similar to those who participated in the main study. The pilot study was conducted in order to obtain feedback about the clarity, length, comprehensiveness, and required completion time of the study questionnaire as well as to collect data to estimate the internal consistency of the questionnaires.

Items designed to measure constructs were included; three items to measure attitude (e.g., utilization of SABA services for me is: beneficial), 3 items to measure outcome expectation (e.g., if I utilization of SABA services, I will avoid the risk of many diseases), sex items to measure barriers (e.g., Ability to pay for these services are not possible for me), 4 items to measure subjective norms (e.g., if I use of SABA services, my family will confirm it), 3 items to evaluate behavioral intention (e.g., I intend to do orders of physician and other healthcare workers), 2 items to measure self-efficacy (e.g., I confirm which is difficult for me to do orders of physician and other healthcare workers toward SABA services), 5 items to measure cause to action (e.g., my family give me information toward utilization of SABA services). In order to facilitate the participants' responses to the items, attitude, outcome expectation, barrier, self-efficacy and behavioral intention towards drug use were standardized to a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Cause to action item was standardized to a yes or no scale. Estimated reliability using alpha Cronbach coefficient for each SCT constructs questionnaire were as follows: attitude ( $\alpha = 0.86$ ); outcome expectation ( $\alpha = 0.92$ ); perceived barrier ( $\alpha = 0.81$ ); self-efficacy ( $\alpha = 0.75$ ); subjective norms ( $\alpha = 0.90$ ); cause to action ( $\alpha = 0.55$ ) and behavioral intention ( $\alpha = 0.87$ ).

Table 3: Association between background variable and intention of SABA services utilization

Variables	Mean	SD	p-values
<b>Education al level</b>			
Under diploma	11.70	2.04	0.157
Diploma	11.86	1.94	
Academic	11.11	3.30	
<b>Marital status</b>			
Single	11.37	2.72	0.467
Married	11.69	1.93	
Divorced/Widow	11.47	2.56	
<b>Economic status</b>			
Very bad	10.59	2.89	0.029
Bad	11.83	1.91	
Middle	11.59	2.03	
Good	11.74	1.98	
Very good	12.23	0.90	
<b>Special disease</b>			
Yes	11.81	2.26	0.415
No	11.64	2.00	

**Data analysis:** The data were analyzed by the SPSS Software for Windows (Ver. 21.0) using t-test, one-way ANOVA, bivariate correlation as well as linear regression and at 95% significant level.

The mean age of respondents was 42.45 years [95% CI: 41.89, 43.01], ranged from 30-60 years. Regarding the educational status: 65.3% (n = 522) had in under diploma, 11.1% (n = 89) diploma, 5.5% (n = 44) were academic and 18.1% (n = 145) were unanswered. About 5.4% (43/800) participants were single, 87.5% (700/800) were married, 6.5% (52/800) were widow and 0.6% (5/800) was unanswered. In addition, 23.8 (191/800) of participants were reported had very good or good economic status. Furthermore, 14.9% (119/800) of participants were reported had chronic illness. Also, 94.4% (755/800) of respondents had health insurance.

Table 1 shows mean, standard deviation, scores range and bivariate correlations between the SCT constructs which were statistically significant at either 0.01 and 0.05 level.

As can be seen in Table 2, SCT variables were statistically significant for predicting intention of SABA services utilization which, they were accounted for 38% of the variation in intention of SABA services utilization (Adjusted R<sup>2</sup> = 0.38, F = 105.296 and p<0.001).

We found that significant correlation between economic status and intention of SABA services utilization (p<0.001). In addition bivariate associations among the age and intention of SABA services utilization was not significant (Table 3).

## RESULTS AND DISCUSSION

The present study showed that components of social cognitive theory could predict 38% of variance of intention of SABA services utilization. In addition, attitude, subjective norms, outcome expectation and self-efficacy were better predictors of intention of SABA services utilization. In this regards, Janicke and Finney (2003) suggested that components of social cognitive theory could predict 13.2% of variance to use primary health care services among children in America. In addition, several studies of women health also reported cognitive factors such as attitude, self-efficacy and subjective norms as strong predictors to undergoing preventive behaviors (Jalilian and Emdadi, 2011; Alavijeh *et al.*, 2015). Also, considering the self-efficacy to receive services, Khayatan *et al.* (2011) carried out a research on women in center of Iran and suggested individual, environmental, financial and structural factors to be influential on availability of services offered in health care centers. Furthermore, the findings showed that among attitude items 'service usefulness' and among barriers items 'possibility to pay for services gained' the highest scores. Fitzpatrick *et al.* (2004) also reported medical expenses as one of the most important barriers to access health care services which correspond to the results from present study. Shook and colleagues, on the other hand, suggested barriers to availability as the most important obstacles to receive health care services. Also, according to the results, the most important sources of guidance to receive services were health care staff. Also, the highest self-efficacy score was on following physician and other staff guidance. Furthermore, among outcome expectation items 'preventing disease through using SABA services gained' the highest score. In this regard, Mohammadpour *et al.* (2003) showed uncertainty to doctors as one of the most important factors to avoid health care services by people. Heidari and Sherbaf (2005) concluded that, among all 12 factors under study to determine the reasons why families avoid using pregnancy care services offered in health care centers in Islam Shahr, Iran, lack of confidence in health care staff skills was known as the third important factor to avoid health care services. Considering the expenses of SABA services and offering interventions on informing society to take the advantages of health care services could also be efficient.

Results from the present study showed no meaningful relationship between several demographic variables (such as age, marital status, education and having a specific disease) and intention of SABA services utilization. Only we find a meaningful relationship detected between family economy and intention of SABA

services utilization and better family economic status, the stronger their intention of SABA services utilization. In this regards, researchers concluded that due to the weak financial conditions of families West of Iran, paying expenses was the most important barrier to receive services; for example, Kaufman *et al.* (2006) reported that those who had to pay medical expenses were 8.76% more liable to cancel their operations.

Although, the present study has several strengths, such as theory driven and high sample size, the findings reported in this study have few limitations. First, the use of two methods for data collection (self-reporting and interview) which always faces the risk of recall bias. Second, the internal consistency the questionnaire was relatively low ( $\alpha = 0.65$ ) for assessing cause to action.

## CONCLUSION

The results showed that attitude, subjective norms, outcome expectation and self-efficacy were better predictors of intention of SABA services utilization among Iranian women's.

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## REFERENCES

- Alavijeh, M.M, M. Mahboubi, F. Jalilian, A. Aghaei and T.A. Jouybari, 2015. Factors related to self-breast examination based on health belief model among Iranian women. Res. J. Med. Sci., 9: 105-108.
- Ataee, M., T.A. Jouybari, M.M. Alavijeh, A. Aghaei, M. Mahboubi and F.Z. Motlagh, 2014. Images of methamphetamine users among Iranian adolescents: An application of prototype willingness model. Life Sci. J., 11: 224-227.
- Baghiani, M.M., A.M. Mirzaei and R. Zolghadr, 2012. Knowledge, risk perceptions and behavioral intentions among elementary school teachers of Yazd Regarding Hepatitis A. Govaresht, 17: 84-90.
- Cohen, M., 1998. Towards a framework for womens health. Patient Educ. Counseling, 33: 187-196.

- Eldredge, L.K.B., C.M. Markham, G. Kok, R.A. Ruiter and G.S. Parcel, 2016. Planning Health Promotion Programs: An Intervention Mapping Approach. John Wiley and Sons, Hoboken, New Jersey, ISBN: 978-1-119-03549-7, Pages: 622.
- Eriotis, N., F. Stamatiadis and D. Vasiliou, 2011. Assessing accrual accounting reform in Greek public hospitals: An empirical investigation. *Int. J. Econ. Sci. Appl. Res.*, 4: 153-183.
- Fitzpatrick, A.L., N.R. Powe, L.S. Cooper, D.G. Ives and J.A. Robbins, 2004. Barriers to health care access among the elderly and who perceives them. *Am. J. Public Health*, 94: 1788-1794.
- Ginis, K.A.M., A. Latimer, K.P. Arbour-Nicitopoulos, R.L. Bassett, D.L. Wolfe and S.E. Hanna, 2011. Determinants of physical activity among people with spinal cord injury: A test of social cognitive theory. *Annals Behav. Med.*, 42: 127-133.
- Godin, G., G.A. Belanger, M. Eccles and J. Grimshaw, 2008. Healthcare professionals intentions and behaviours: A systematic review of studies based on social cognitive theories. *Implementation Sci.*, Vol. 3, 10.1186/1748-5908-3-36.
- Gulliford, M. and M. Morgan, 2013. Access to Health Care. Routledge, New York, USA.
- Heidari, A.B. and G.P. Sherbaf, 2005. Study of the rate and causes of Islamshahr urban residents voiding to refer to the health centers for receiving health services (2003). *Tehran Univ. Med. J. Publ.*, 63: 141-150.
- Jalilian, F. and S. Emdadi, 2011. Factors related to regular undergoing Pap-smear test: application of theory of planned behavior. *J. Res. health Sci.*, 11: 103-108.
- Jalilian, F., M. Ataee, M.B. Karami, M. Ahmadpanah and T.A. Jouybari *et al.*, 2015. Cognitive factors related to drug abuse among a sample of Iranian male medical college students. *Global J. Health Sci.*, 7: 143-151.
- Janicke, D.M. and J.W. Finney, 2003. Childrens primary health care services: Social-cognitive factors related to utilization. *J. Pediatr. Psychol.*, 28: 547-558.
- Janicke, D.M., J.W. Finney and A.W. Riley, 2001. Childrens health care use: A prospective investigation of factors related to care-seeking. *Med. Care*, 39: 990-1001.
- Kaufman, W., A.S. Chavez, B. Skipper and A. Kaufman, 2006. Effect of high up front charges on access to surgery for poor patients at a public hospital in New Mexico. *Int. J. Equity Health*, Vol. 5, 10.1186/1475-9276-5-6.
- Khayatan, M., P.A.A. Nasiri, M. Amini and N.S.M. Mohamad, 2011. The effective factors on receivers access to health care services in urban health care centers. *J. Payavard Salamat*, 4: 18-27.
- Kok, G., 2014. A practical guide to effective behavior change: How to apply theory-and evidence-based behavior change methods in an intervention. *Eur. Health Psychol.*, 16: 156-170.
- Mohammadpour, A., M. Motalebi, A. Khjavi and J. Bazeli, 2003. The quality of receiving medical services in the society by people and the factors that impacts on it. *J. Gonabad Univ. Med. Sci.*, 8: 23-31.
- Morowatishaifabad, M.A., M.J.Z. Sakhvidi, M. Gholianavval, D.M. Boroujeni and M.M. Alavijeh, 2015. Predictors of hepatitis B preventive behavioral intentions in healthcare workers. *Safety Health Work*, 6: 139-142.
- Rajati, F., K. Kamali and S. Parvizy, 2011. Public health customers experiences of health accessibility: A phenomenological study. *Iran. J. Epidemiol.*, 7: 17-24.