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Research Article

INFORMATION SEEKING BEHAVIOR AMONG CITIZENS IN ALMADDINA ALMONAWRAH, KSA

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Abstract:

Background: With the increasing use of the Internet in the recent few years, research is now directed to focus on the utilization of internet and different technological methods and its impact on information seeking behavior. However the figures in Saudi Arabia are not clear due to scarcity of data.

Objective: to investigate different aspects of information seeking behavior over different age groups and gender and to determine discrepancy of information seeking behavior among residents of Almaddina Al-monawrah, Saudi Arabia.

Design and Setting: a cross-sectional observational survey study that was carried out in Almaddina Al-monawrah, Saudi Arabia using an online self-developed questionnaire that was distributed, via link to Google forms to the general public. All citizens and residents in Almaddina Al-monawrah aging from 15 years old and above were included in this study. Only completed surveys were included in the analysis

Statistical analysis: Data were represented in the form of frequencies (number of responders) and valid percentages for categorical variables. Chi square test was used to compare between different subgroups. All P values < 0.05 were considered statistically significant.

Results: 363 participants from Almadinah Almunawarah completed the survey. The most prevalent responders were from age group between 31 to 40 years old with 28.1% of responses. Also females represented higher number of participants in the study with 72.5% participation. Most of the responders (60.3%) had university degree. Health care professionals were the most common source of information followed by internet for both previous and current resources used.

Conclusion: Internet is a major source of medical information in Almadinah Almunawarah. Information provided through the internet can influence medical decisions done by citizens. Further studies in other regions in Saudi Arabia are essential to give complete figure for this behavior all over the kingdom.

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INTRODUCTION:

Online health information is becoming one of the most essential information resources for individuals in need for healthcare information in the past decade [1]. With the growing accessibility of online healthcare information resources, in addition to the need to take more obligations for health and costs minimization, an increasing number of individuals are utilizing the Internet to get healthcare information [2].

Based on Pew Internet and American Life Project, about 60% of the American citizens Internet users explored healthcare information through surfing the internet [3]. Also 60% of them mentioned that the data available online influence their health care choices [4]. The healthcare data being surfed online includes consultation and information related to symptoms, medical conditions, and treatment strategies [5]. The privileges of utilizing online healthcare data comprise cost minimization, privacy security, absence of embarrassment, competent and effective recovery of data, and the capability to information match individualize to one's requirements [6].

Online healthcare data searches can enhance healthcare consequences through decreasing the health care discrepancy and promoting patients' active communication with physicians [7]. A growing number of articles on healthcare information systems are currently published [8]. However, most of the available studies investigate topics regarding adoption and influence of health information technology from a healthcare professionals' opinion [9]. Information system literature related to online healthcare information utilization from the patient's perceptive is sparse [10].

Building up knowledge about online healthcare data search behavior may help decision makers in starting protocols that can enhance the sharing of online sources to spread health information with high quality and standards also to educate patients about its precision especially in Saudi Arabia where internet is almost available for all citizens [11].

Therefore, the aim of this study is to investigate different aspects of information seeking behavior over different age groups and gender .Also, to determine discrepancy of information seeking behavior among residents of Almaddina Almonawrah, Saudi Arabia. Additionally this study will determine how the internet and social media use can change making decisions related to health and to determine if there are ways to improve the behavior of seeking health information.

MATERIALS AND METHODS:

Study design:

This is a cross-sectional observational survey study that was carried out in Almaddina Al-monawrah, Saudi Arabia aging from 15 years old and above where an online self-developed questionnaire was distributed, via link to Google forms to the general public. All citizens and residents in all regions of Saudi Arabia were included in this study. Only completed surveys were included in the analysis

Data collection:

Data was collected through a self-administered designed questionnaire that was available in the form of an online google form. Data included in survey was as follows; Socio-demographic characteristics, previous and current medical resources used by the participants, easiness and reasons for using certain resources. Additionally, questions assessing influence of these resources on healthcare decisions done by participants were also included.

Statistical analyses:

Data were represented in the form of frequencies (number of responders) and valid percentages for categorical variables. Chi square test was used to compare between different subgroups. All P values < 0.05 were considered statistically significant. IBM SPSS (Statistical Package for the Social Science; IBM Corp, Armonk, NY, USA) was used to perform all statistical calculations, version 21 for Microsoft Windows.

Ethical considerations:

Institutional research ethics board in Almadinah Almunawarah approval was acquired prior to conducting the study protocol. A statement was included at the beginning of the questionnaire clarifying that the participation in this study is totally voluntary and that collected data will be anonymous and will only be used for the purpose of this study.

RESULTS:

363 participants from Almadinah Almunawarah completely answered the survey. Different sociodemographic variables in addition to questions regarding past health information sources used, their usefulness and ease of use; as well as future health information sources were analyzed as detailed below.

1) Socio-demographic data

Demographic data of participants was evaluated including Age, gender, nationality, educational level and place of residence. Age was categorized into six age groups, the most prevalent responders were from age group between 31 to 40 years old with 28.1% of responses. Also it was observed that females represented higher sector of participants in the study with 72.5% participation.

As for nationality, all the participants were Saudi except for twelve participants were non Saudi. Educational level ranged between primary school education to post graduate education. Most of the responders (60.3%) had university degree. Turning to place of residence, 88.4% of participants were from Almadinah Almunawarah. All socio-demographic data are discussed in details in table 1. Figure 1 also shows different age groups participating in the study

Tabe 1. Shows Socio-demographic data of responders.

	Frequency	Percent						
Gender								
Female	263	72.5						
Male	100	27.5						
	Nationality	·						
Non Saudi	12	3.3						
Saudi	351	96.7						
	Educational Level							
Primary School	4	1.1						
Intermediate	15	4.1						
Secondary school	80	22						
High school	23	6.3						
University	219	60.3						
Post graduate	22	6.1						
Place of Residency								
Al Madina Al Monaoura	321	88.4						
Other	32	8.8						
Yanbou	10	2.8						



Figure 1. Shows different age groups participating in the study

2) Use of previous resources

Previous resources varied between whats app, social media, family and friends, TV, books and magazines, internet and tele-services provided by ministry of health in addition to healthcare professionals. Health care professionals were the most common source of information for 17.4% of the participants followed by internet (60%).

Participants were also asked about their level of benefit from the used resource. 39.7% of participants described the level of benefit as very good (39.7%) while only 1 participant (0.3%) had a wrong information from the used resource.

Additionally 38.6% of responders mentioned that the use of the resource was easy, on the other hand, 2 participants (0.6%) considered it as loss of time. Moreover, their most common reason for using this resource is its availability (26.7%). Turning to the impact of resources on decision making, 66.9% of participants mentioned that they relied on the used resource in making decisions related to their health. Responses were compared over both genders as shown in table 2 and different age groups as shown in table 3. Chi square test was used to compare the variables with level of significance at P<0.05.

Table 2. Shows a comparison between	n different responses over	both genders
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		Males	Females	P Value
Level of benefit	Good	31	59	
	High	18	52	
	Very high	15	37	0.096
	Poor	4	2	
	Very Poor	32	112	1
	Wrong	0	1	

	Easy	38	102		
	Very easy	31	89		
Easiness of using	Hard	2	4	0.682	
the resources	Very hard	2	1		
	Intermediate	26	66		
	Loss of time	1	1		
Dependence on resources to make decisions	No	31	89	0.607	
	Yes	69	174		
Reason for using this resource	Availability	21	76		
	Easy	27	62	0 380	
	Rapid	23	64		
	Trustable	29	61		

*Level of significance at P value ≤0.05

		15 to 20	21 to 25	26 to 30	31 to 40	41 to 50	51 and more	P Value
Level of benefit	Good	13	9	9	21	21	17	0.105
	High	8	8	13	22	12	7	
	Very high	4	6	14	9	16	3	
	Poor	0	1	0	3	0	2	
	Very Poor	12	25	19	46	26	16	
	Wrong	0	0	0	1	0	0	
Easiness of using the	Easy	11	17	22	39	33	18	0.597
resources	Very easy	16	17	17	35	25	10	
	Hard	1	0	0	3	1	1	
	Very hard	0	1	0	0	2	0	
	Intermediate	9	14	16	23	14	16	
	Loss of time	0	0	0	2	0	0	

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Dependence on resources to make decisions	No	19	21	10	32	26	12	0.014*
	Yes	18	28	45	70	49	33	
Reason for using this	Availability	13	6	13	26	25	14	0.041*
resource	Easy	6	11	7	28	23	14	
	Rapid	11	15	17	27	11	6	
	Trustable	7	17	18	21	16	11	

*Level of significance at P value ≤0.05

3) Use of current resources

When participants were asked about the current resource they are using, healthcare professionals came at the top of the list (30.9%) followed by internet with 18.5% of participants using it.most of the participants described the chosen resources as being easy to use (45.7%) and 30.9% found it of high value. Similar to previous resources, it was observed

that 78.5% depended on these resources to make healthcare decisions. Additionally, the most common reason for using the chosen resources was being trustable for 36.4% of the respondents.

Responses were compared over both genders as shown in table 4 and different age groups as shown in table 5. Chi square test was used to compare the variables with level of significance at P<0.05

Table 4. Shows a	comparison	between	different	responses	over bo	th genders
Table 4. Dilows a	comparison	Detween	uniterent	responses	0101 00	in genuers

		Males	Females	P Value
	Good	18	33	
	High	28	84	
Level of benefit	Very high	22	63	0.012*
	Poor	4	0	
	Very Poor	28	83	
	Wrong	0	0	
	Easy	47	119	
	Very easy	30	97	
Easiness of using	Hard	5	2	0.007*
the resources	Very hard	2	0	
	Intermediate	15 45		
	Loss of time	1	0	
Dependence on resources to make	No	24	54	0.472
decisions	Yes	76	209	

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	Availability	12	35	
Reason for using	Easy	25	61	0.978
this resource	Rapid	27	71	
	Trustable	36	96	

*Level of significance at P value ≤0.05

Table 5. Shows a comparison between different responses over different age groups

		154-00	01 4- 05	264-20	21 4 - 40	41.4. 50	61	D V-L
		15 to 20	21 to 25	26 to 30	31 to 40	41 to 50	51 and more	P Value
Level of benefit	Good	5	3	4	18	12	9	0.022*
	High	15	23	11	28	20	15	
	Very high	8	12	22	17	20	6	
	Poor	0	0	0	1	1	2	
	Very Poor	9	11	18	38	22	13	
	Wrong	0	0	0	0	0	0	
Easiness of using the	Easy	21	21	20	48	37	19	0.095
resources	Very easy	11	15	25	37	29	10	
	Hard	0	0	0	2	2	3	
	Very hard	0	1	0	0	0	1	
	Intermediate	5	12	10	15	7	11	
	Loss of time	0	0	0	0	0	1	
Dependence on resources	No	7	6	8	25	19	13	0.231
to make decisions	Yes	30	43	47	77	56	32	
Reason for using this	Availability	5	2	6	14	11	9	<0.001*
resource	Easy	5	6	9	25	28	13	
	Rapid	8	10	20	37	13	10	
	Trustable	19	31	20	26	23	13	

*Level of significance at P value ≤0.05

DISCUSSION:

Internet is becoming an essential part of our daily life with a great influence on medical practice from both physicians and patients' perspectives. This study investigated the information seeking behavior for citizens in Almadinah Almunawarah. It was found that most of the respondents were young adults with an age range between 31 and 40 years old. Also they had a university degree and from Almadinah Almunawarah.

It was revealed that the most common resource for medical information after healthcare professionals is internet, either previously or currently. The participants referred back the use of internet to its availability and trustability. Additionally, the participants agreed on that the internet influence their medical decisions regarding their health.

On comparing responses over both genders it was found that there was no significant difference in responses regarding previous information resources, however, there was a significant difference between males and females responses on current information resources regarding the level of benefit from the resource (p=0.012) and easiness of using the resources (p=0.007).

Turning to age groups, responses were compared over different age groups for both previous and current information resources. There was a significant difference between responses of different age groups regarding the dependence on the previous resources to make healthcare decisions (p=0.014) and reason for using this resource (p=0.041). As for current resources, responses were significantly different between age groups regarding the level of benefit from current resources (p=0.022) and reason for using this resource (P<0.001).

However, Information seeking behavior may vary in its influence in different communities. Couper *et al* [12] investigated the use of internet and its influence on making medical decision in the United States. In contrast to our findings, Couper *et al* [12] revealed that older adults were more influenced by internet in making healthcare decisions. Also Couper *et al* [12] didn't find association between gender and medical decisions. However the present work revealed that females had higher benefit and easier to use internet compared to males.

Another important study was done in Switzerland was Zufferey et al [13]. The study interviewed patients who used online health resources before and after medical consultations. Zufferey et al [13] found that patients used internet resources in order to validate and challenge information provided during a medical consultation. Additionally the study found that the most common reason for using the internet was its easiness to use similar to the findings of the present work.

In contrast to the present work, Zufferey et al [13] did not compare males to females or different age groups regarding their perspectives on using internet as a medical resource to provide information.

To understand behaviors of information seeking, factors influencing information seeking behavior need to be explored. This was done through the Egyptian trial of Ghweeba et al [14] which examined the predictors of online information seeking behavior among adult Egyptians. The study included 490 Egyptians aging 18 years and older who were asked through a self-administered questionnaire about demographics, general health status and health information seeking behavior.

Ghweeba et al [14] concluded that more than half the participants used the interent as a main source for their medical information. This finding was compliant with our results either for previous or current source of information. Additionaly, Ghweeba et al [14] revealed that participants preferred the internet because of protecting the privacy of the participants. In the present study, internet was preferred for its availability, trustability and ease of use.

To our knowledge, this is the first study in to investigate the information seeking behavior in Almadinah Almunawarah, Saudi Arabia. Further studies in other regions in Saudi Arabia are essential to give complete figure for this behavior all over the kingdom.

CONCLUSION:

Internet is a major source of medical information in Almadinah Almunawarah. Information provided through the internet can influence medical decisions done by citizens, these finding should be used in order to tailor the information provided by the internet to meet the need of Saudi population.

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