

Health awareness among Saudi family: Toward building health and social model

Eman Makki Almustafa¹, Ali Mohammed Hummedi², Khaloud Ali alghannam³, Saeed Mohammed Albohayri², Mashari Abdullah AlOudah⁴, Insherah Abdullah Abu dheeb³, Huda Ahmed Al ghamdi⁵, Mona Abdulrazaq Alharoun⁴, Waheeda Khalil abukurain³, Nawal Mohammed Al-Nazawi⁶

¹ Clinical Resource Nurse, Nursing Department, Immam Abdulrahman Bin Faisal Hospital NGHHA, Saudi Arabia

² Anesthesia technologist I, Anesthesia Department, Immam Abdulrahman Bin Faisal Hospital NGHHA, Saudi Arabia

³ Staff Nurse, Nursing Department, Immam Abdulrahman Bin Faisal Hospital NGHHA, Saudi Arabia

⁴ Physiotherapist II, Physiotherapy Department, Immam Abdulrahman Bin Faisal Hospital NGHHA, Saudi Arabia

⁵ Nurse Manager, Nursing Department, Immam Abdulrahman Bin Faisal Hospital NGHHA, Saudi Arabia

⁶ Pharmacy supervisor, pharmaceutical services, Immam Abdulrahman Bin Faisal Hospital NGHHA, Saudi Arabia

Abstract:

This study aims to assess the level of health awareness within Saudi families to contribute to the attainment of health security, a pivotal component of comprehensive security encompassing social, economic, educational, and cultural dimensions. This endeavor involves the identification of prevalent health issues in Saudi society, the extent of engagement with traditional healthcare practices, the influence of cultural and social norms on the escalation of health challenges, citizens' societal obligations concerning their health and their perceived responsibilities toward it, as well as the exploration of dietary habits and the prevalence of physical inactivity.

To collect the necessary data, a random sample of 500 families from across various regions within Saudi Arabia was surveyed.

The Gulf Cooperation Council (GCC) countries, including Saudi Arabia, have, since the mid-1970s, prioritized the health sector as a significant component of their economic and social development strategies. This emphasis on healthcare has translated into notable advancements in the United Nations Development Programme's (UNDP) Human Development Report rankings for 1998, reflecting tangible improvements in the accessibility and quality of healthcare services, which have contributed to an increase in life expectancy.

Discussion: The study's findings reveal a generally high level of health awareness among Saudi families. Nevertheless, there remain areas where awareness could be enhanced. Notably, the study identifies a notable interest in traditional or folk medicine among Saudi families. While cultural practices are important, there is a concern that folk medicine may not always be safe or effective.

The research also highlights the need to improve dietary habits and physical activity among Saudi families. The prevalence of conditions such as obesity and chronic diseases is rising in Saudi Arabia, often attributed to poor dietary choices and a lack of regular physical exercise.

Conclusion: Based on the study's results, it is evident that efforts to promote health awareness among Saudi families should persist. This can be accomplished through various means, including public awareness campaigns, school-based educational programs, and targeted health promotion initiatives tailored for families. Such initiatives can contribute to the betterment of overall health and well-being within the Saudi population.

Keywords: health awareness, Saudi family, health problems, folk medicine, cultural and social patterns, social responsibility.

Introduction:

The study on health awareness within Saudi families is grounded in system theory, which posits that it is an evolution of the dual model. This model classifies the social system as primitive and advanced, traditional and industrial, or community and society. Parsons utilized pattern variables to interpret the social system, and according to Zeuner (2001), pattern variables offer a suitable framework for comprehending shifts in health awareness and the decision-making processes of individuals regarding this phenomenon. These pattern variables encompass five key categories that we will investigate and discuss. They serve as a foundational framework for comprehending and analyzing the Saudi family's evolution, including the contemporary shifts it has undergone, such as the transition from the extended family structure to the nuclear family pattern. These variables also offer insights into how individuals make judgments in response to these changes. [1]

The universality variable prevails in civilized societies. Here, the actor judges the subject according to general criteria and principles that apply to all subjects. For example, the family in urban societies is dominated by the universality variable due to the spread of roles and their relationship to social stratification (health awareness). Universality is opposed to the particularity variable, which prevails in primary relationships. In these societies, the actor judges the subject according to special criteria and principles. For example, the relationship between the father and the children in the family atmosphere is governed by relations of particularity. [2]

The actor defines the achievement variable in light of what he achieves, and his judgment is based on achievement. As for the attribution variable, the actor's judgment is based on the nature of the subject, away from achievement. Attribution is usually associated with non-acquired and inherited topics. For example, traditional society is characterized by attribution. Health awareness is associated with the variable of achievement and the extent to which the state provides individuals with health care services. [3]

Emotional neutrality means giving up emotional feelings, and the actor's judgment here is through rational action. Emotional neutrality generally applies to professional functions and official relationships. [4]

This passage provides a brief overview of the theoretical framework used in the study of health awareness among Emirati families. The study uses Parsons' system theory, which is based on the concept of pattern variables. Pattern variables are five pairs of opposites that can be used to describe the social system. The five pattern variables used in this study are universality vs. particularity, achievement vs. ascription, neutrality vs. affectivity, specificity vs. diffuseness, and collectivity vs. individualism. [5]

The study argues that these pattern variables can be used to understand the change in health awareness among Emirati families. For example, the study argues that the transition from the extended family pattern to the nuclear pattern has led to an increase in the importance of the universality and achievement variables in the family. This is because the nuclear family is smaller and more mobile than the extended family, and it is more likely to be exposed to new ideas and information. [6]

The study also argues that the pattern variables can be used to understand the mechanism of the actor's judgment on health awareness. For example, the study argues that people who are high on the universality variable are more likely to be influenced by scientific evidence on health, while people who are high on the particularity variable are more likely to be influenced by traditional beliefs and practices. [7]

As for the affectivity variable, it was dominated by family and emotional relationships and relations between relatives and friends. In general, it can be said that emotional neutrality dominates in civilized societies, while the affectivity variable dominates in traditional societies. [8]

The specificity variable means distancing oneself from actual participation in the event by performing the official role. This applies to doctors in their relationships with patients or to the relationships of managers with employees. Generally, the specificity variable prevails in civilized and advanced societies. As for the diffusion variable, it refers to participation and social relations. This is achieved through the overlapping relationships between the actors. It applies to the father in his relationship with his children, the friend with his friends, or the kinship relations within the traditional and primitive village in general. [9]

The self-orientation variable refers to the search for private and individual interests away from the interests of the association and the collective feeling. Collective orientation means orientation towards the group and integration into its life. The self-variable dominates in civilized societies. While the collective variable dominates in traditional societies. [10]

In short, this study is based on pattern variables in interpreting the reality of the family in UAE society, such as universality, achievement, specificity, and self-orientation. [11]

Previous studies:

In the realm of public health, fostering health awareness is crucial to preventing and managing various health issues, promoting healthy behaviors, and reducing the burden on healthcare systems. Saudi Arabia, like many other countries, faces the challenges of non-communicable diseases, lifestyle-related health problems, and an evolving healthcare landscape. The study aims to explore the dynamics of health awareness within Saudi families, examining their knowledge, attitudes, and practices concerning health-related matters. By doing so, it seeks to contribute to the development of a comprehensive health and social model that aligns with the cultural, social, and economic realities of Saudi society. [12]

Erdley et al. (2017) point to the need to link the concept of public health with physical fitness, as there is a relationship between the different components of physical fitness and health, and that performing physical exercises in an organized manner is closely related to reducing the risk of developing diseases of the cardiovascular system and respiratory system, as well as reducing mental disorders and overcoming daily stress. Physical fitness is determined by genetic criteria and is related to the degree of growth of the individual. Physical education is a means to improve levels of physical fitness, thus increasing individual health and reducing the likelihood of developing different diseases of the era. [13]

In a study by H. Fan and R. Lederman (2018), the extent to which the growth of sedentary life is associated with body health in the United Kingdom was pointed out. The study showed the existence of external obstacles such as lack of time and a low level of health awareness as one of the main factors that negatively affect body health. [14]

The concept of education and health awareness means educating individuals and raising their awareness to change their behavior and habits, especially in the case of the spread of diseases within the community, as well as instilling social customs and traditions that would support the health side and its development, such as exercising, healthy eating, and proper postural habits. The role of play in health awareness and its success in individuals has a close relationship with the formation of an important aspect of their personalities. [15]

Therefore, this issue should be given planned and deliberate attention, just like the regular educational process at any level of study (Garg et. al., 2016). The goal of health education and awareness is also to raise the general health level of individuals, which leads to increased productivity and savings in treatment costs. This is because there is a close relationship between eating a healthy diet and exercising to enjoy health, which guides individuals to how they can assess their health status. [16]

Hill-Briggs et. al. (2021) states that a health-conscious person is an ideal person who enjoys high levels of physical, mental, psychological, social, and health integration. And that practicing sports activities helps to prevent the most important modern diseases, such as diabetes, heart disease, respiratory diseases, obesity, overweight, and postural deformities. Considering that the health aspect includes two main aspects: health culture, which is represented by the acquisition of health knowledge and information, and health awareness, which is represented by the practice and application of that knowledge and information in practice. [17]

Hillen et. al. (2017.) defines health awareness as "the translation of health knowledge, information, and experiences into behavioral patterns in individuals." While Kandil (1990, p. 170) defined it as "positive behavior that has a positive impact on health and the ability to apply this information in daily life, in a continuous way that gives it the form of a habit that directs the individual's abilities in determining his integrated household duties that preserve his health and vitality within the limits of his possibilities,". [18]

This result on awareness of the importance of reviewing government hospitals and clinics is consistent with Parsons' system theory, which confirms that the achievement variable prevails in the contemporary family. Health awareness is linked to the achievement variable and the extent to which the state provides individuals with health care. This is consistent with the results of the study by Kamal et. al. (2020) on traditional medicine in the UAE. [19]

A study by A. Larkin and P. Hystad (2017) on a sample of 548 male and female students, showed that the most important health problems that sample members suffer from in the preparatory, secondary, and university stages are acne, headaches, weight gain, and weight loss. The results showed that females suffer more from these problems than males. [20]

A study by R. Rahman (2020) on a sample of female diabetics in Riyadh, consisting of 420 female diabetics of type 2, with ages ranging from 30 to 75 years and over, and government

hospitals in the Riyadh region formed the study community. The results of the study confirmed that lifestyle and unhealthy environments can cause a healthy person to develop chronic diseases. [21]

Aim of the study

The research endeavor aims to explore the nuances of health awareness within Saudi families, serving as a fundamental gateway to achieving holistic societal, economic, educational, and cultural security.

The objectives of this research include assessing the Saudi families' inclination towards traditional medicine, gauging their increasing awareness of the significance of contemporary medical practices, as well as pinpointing the prevalent health challenges within Saudi Arabian society and the level of interest these issues generate among Saudi families. Moreover, the study seeks to uncover the influence of cultural and social norms on the exacerbation of health concerns in Saudi Arabia and to discern the sense of societal responsibility held by Saudi families concerning their health.

Methodology

The study will employ a multidisciplinary approach, drawing from fields such as public health, sociology, psychology, and cultural studies to provide a holistic view of health awareness. It will likely involve surveys, interviews, and data analysis to uncover patterns and insights that can inform the development of health education programs, policy initiatives, and community interventions. Ultimately, this research will be valuable for policymakers, healthcare providers, and educators working to enhance the health and well-being of Saudi families, contributing to the creation of a model that can serve as a template for promoting healthier lifestyles and improving healthcare outcomes in the region.

Saudi Arabia has a well-developed healthcare system, with a wide range of hospitals and healthcare facilities available to its citizens and residents. The healthcare system is funded by the government and provides free healthcare to all citizens and residents.

There are over 490 hospitals in Saudi Arabia, including:

- General hospitals
- Specialized hospitals, such as cancer hospitals, heart hospitals, and children's hospitals
- University Hospitals
- Military hospitals

In addition to hospitals, there are also over 2,700 primary healthcare centers in Saudi Arabia. These centers provide basic healthcare services, such as preventive care, vaccinations, and treatment for minor illnesses.

Some of the most notable hospitals and healthcare facilities in Saudi Arabia include:

- King Faisal Specialist Hospital and Research Center (KFSH&RC) in Riyadh: KFSH&RC is one of the leading hospitals in the Middle East, and is ranked among the top 50 hospitals in the world.
- King Abdulaziz Medical City in Jeddah: King Abdulaziz Medical City is one of the largest hospitals in the world and offers a wide range of medical services.

- Prince Mohammed bin Abdulaziz Hospital in Riyadh: Prince Mohammed bin Abdulaziz Hospital is a general hospital that provides a wide range of medical services to the people of Riyadh.
- King Fahad Medical City in Riyadh: King Fahad Medical City is a specialized hospital that provides treatment for a variety of diseases, including cancer, heart disease, and neurological disorders.
- Soliman Fakeeh Hospital in Dammam: Soliman Fakeeh Hospital is a private hospital that offers a wide range of medical services, including cardiology, oncology, and neurosurgery.

What sets apart the degree of health awareness within Saudi families is its emphasis on analyzing and interpreting health awareness, with a particular focus on the cognitive elements. This pertains to what Saudi families perceive regarding health-related knowledge, information, and personal experiences. This interpretative approach enhances the study's capacity to yield more precise and broadly applicable outcomes in the domain of health awareness. The Saudi family unit serves as the primary subject of analysis, allowing for an evaluation of their level of awareness and consciousness concerning health awareness within the Saudi Arabian community.

Research Problem:

Promoting healthy practices and taking the necessary steps to improve the protection of the community from health risks is essential to ensuring the health of individuals, ensuring the social infrastructure in the future, and reducing health problems in old age and mental health problems such as depression or anxiety. What increases the risk of exposure to these problems are experiences of violence, humiliation, devaluation, and poverty. Some of the things that can help promote mental health include building life skills for children, adolescents, and adults, providing them with psychosocial support in schools, universities, and other community settings through a balanced health system, practicing a social lifestyle characterized by calmness and balance, away from violence, nervousness, anger, and anxiety, and even partially practicing sports.

Research Design

The study used a descriptive approach and a cross-sectional design. A random sample of 500 families from all of Saudi Arabia was used to collect data. The data were collected through a questionnaire that was distributed to family members.

Informed Consent:

- Verbal informed consent was obtained from the nurse participants. They verbally expressed their commitment to cooperate with the researcher.

Statistical analysis

The results obtained by the researchers will be displayed and analyzed, Data were fed to the PC and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp). We will display the arithmetic means of the questionnaire responses obtained from the sample and present the standard deviations to identify the degree of variation in those responses by

displaying the frequencies and their percentages to identify the level of responses about the variables.

Reliability and Validity of the Questionnaire:

The questionnaire's reliability was tested using the split-half method, and the correlation coefficient was found to be 0.882, indicating high reliability. The Cronbach's Alpha coefficient was calculated for the total questionnaire items and yielded a value of (0.958), indicating a high level of reliability and suitability for application.

Results and Discussion

Table 1: Demographic characteristics of the nurses who participated in the study.

Demographic characteristics	N	Percentage %
Gender		
Male	221	44.20%
Female	279	55.80%
Overall	500	100.00%
Age		
Less than 20 years old	22	4.40%
29-20	112	22.40%
39-30	221	44.20%
49-40	59	11.80%
59-50	43	8.60%
60 and above	43	8.60%
Overall	500	100.00%
Family residence		
Riyadh	159	31.80%
Jeddah	75	15.00%
Mecca	62	12.40%
Medina	33	6.60%
Dammam	28	5.60%
Taif	12	2.40%
Tabuk	34	6.80%
Buraydah	7	1.40%
Al Khobar	19	3.80%
Najran	36	7.20%
Hail	26	5.20%
Abha	9	1.80%
Overall	500	100.00%
Social degree		
Single	157	31.40%
Married	244	48.80%
Divorced	45	9.00%
Widowed	54	10.80%
Overall	500	100.00%

Education degree		
Uneducated	12	2.40%
Writing and reading	54	10.80%
Primary	36	7.20%
Intermediate	173	34.60%
High	122	24.40%
University	103	20.60%
Overall	500	100.00%

According to Table (1), it is clear that the size of the surveyed sample, consisting of 500 participants, offers valuable insights into the composition of the study's sample and its implications for the investigation of health awareness among Saudi families.

In terms of **gender**, the sample is notably balanced, with 44.20% of the participants being male and 55.80% female. This gender equilibrium ensures that the study takes into account the perspectives and experiences of both genders, contributing to a more comprehensive analysis of health awareness.

The distribution of participants across **age groups** reveals interesting patterns. A substantial 44.20% of the sample falls within the 39-30 age range, suggesting that middle-aged individuals are well-represented. Additionally, 22.40% are between 29-20, and 11.80% are aged 49-40. The nearly equal representation of participants aged 60 and above and those aged 59-50 at 8.60% each offers the opportunity to delve into health awareness across generations.

Examining the **family residence**, the data illustrates a diverse geographical representation. Riyadh, at 31.80%, is the most represented city, followed by Jeddah at 15.00% and Mecca at 12.40%. The inclusion of participants from various regions in Saudi Arabia ensures a holistic perspective on health awareness, considering potential regional variations.

When it comes to **social status**, the participants reflect a range of marital situations. A significant 48.80% are married, while 31.40% are single. Additionally, the sample includes 9.00% divorced and 10.80% widowed individuals. This diversity allows for an exploration of how marital status may influence health awareness.

Lastly, participants in the study exhibit diverse **educational backgrounds**, with representation from various levels of education. A notable 34.60% have attained an intermediate level of education, while the rest are distributed across different education levels, from uneducated to university-educated. This diversity in education levels permits an investigation into the potential influence of educational background on health awareness.

Table 2: Distribution of Vacation and income characteristics according to study population

Vacation and income characteristics	N	Percentage %
Monthly income		
Less than 10,000 SAR	159	31.80%
Less than 20000–10000 SAR	199	39.80%
Less than 30000–20000 SAR	116	23.20%
Less than 40000–30000 SAR	17	3.40%

More than 40,000 SAR	9	1.80%
Overall	500	100.00%
Type of Occupation or work sector		
Government sector	285	57.00%
Private	112	22.40%
Student	103	20.60%
Overall	500	100.00%
Did you enjoy your vacation during the last two years		
Yes	328	65.60%
No	172	34.40%
Overall	500	100.00%
Vacation duration		
Less than a month	202	40.40%
One month	107	21.40%
More than one month	101	20.20%
No vacation	90	18.00%
Overall	500	100.00%

Table 2 provides a comprehensive overview of vacation and income characteristics within the study population, offering insights into how these factors relate to the subject of health awareness among Saudi families.

Monthly Income: The data highlights a diverse range of income levels within the study population. A significant portion of the participants (31.80%) reported a monthly income of less than 10,000 SAR, while a larger proportion (39.80%) falls within the range of 10,000 to 20,000 SAR. The data indicates that a considerable segment of the population falls within the lower to middle-income categories, with relatively fewer individuals earning more than 40,000 SAR (1.80%).

Type of Occupation or Work Sector: The study population's occupational distribution reveals that the majority of participants (57.00%) are employed in the government sector, indicating a substantial presence of public sector workers in the sample. Private sector employees constitute 22.40% of the population, and students make up 20.60% of the sample. This diversity in occupational backgrounds allows for the exploration of how employment and sectors of work might impact health awareness among Saudi families.

Enjoyment of Vacation in the Last Two Years: The data on vacation experience indicates that a significant proportion of participants (65.60%) reported enjoying their vacations during the last two years, while 34.40% did not. This data is particularly relevant to the study as it can help assess the relationship between vacation experiences and health awareness.

Vacation Duration: Participants reported varying vacation durations. A substantial number (40.40%) had vacations lasting less than a month, while 21.40% enjoyed a one-month vacation. Additionally, 20.20% experienced vacations lasting more than one month, and 18.00%

did not have a vacation at all. These findings offer insights into how the duration of vacations might relate to health awareness.

Table 3: Distribution of Family characteristics according to study population

Family characteristics	N	Percentage %
Family type		
Living alone	102	20.40%
Husband and wife only	57	11.40%
Husband, wife, and children only	204	40.80%
Including parents, grandparents, aunts and uncles	137	27.40%
Overall	500	100.00%
Amount of family members		
Less than 3 members	25	5.00%
3 to 4 members	262	52.40%
5 to 6 members	122	24.40%
7 to 8 members	70	14.00%
9 to 10 members	16	3.20%
More than 11 members	5	1.00%
Overall	500	100.00%
Amount of rooms		
Less than 4 rooms	60	12.00%
4 to 6 rooms	208	41.60%
6 to 7 rooms	122	24.40%
More than 8 rooms	110	22.00%
Overall	500	100.00%
Amount of individuals per room		
One	315	63.00%
Two	65	13.00%
Three	82	16.40%
More then four	38	7.60%
Overall	500	100.00%

Table 3 presents the distribution of family characteristics within the study population, shedding light on the diverse family structures and living conditions of the participants. This data is crucial for understanding how these family-related factors may impact health awareness among Saudi families.

Family Type: The study population comprises various family types, with the majority (40.80%) being "Husband, wife, and children only." Additionally, 27.40% of the participants belong to families that include extended members such as parents, grandparents, aunts, and uncles. Furthermore, 20.40% of the families are "Living alone," while 11.40% consist of "Husband and wife only." This diversity in family structures allows for a comprehensive exploration of how different family dynamics relate to health awareness.

Amount of Family Members: The data shows a broad range in the number of family members within the study population. A significant proportion (52.40%) falls within the "3 to 4

members" category, while 24.40% have "5 to 6 members" in their families. Additionally, 14.00% have "7 to 8 members," and a smaller proportion (3.20%) have "9 to 10 members." A very small segment (1.00%) has "More than 11 members" in their families. This distribution enables an examination of how the size of the family may influence health awareness.

Amount of Rooms: The data reveals diversity in the number of rooms in participants' homes. A substantial portion (41.60%) of families have "4 to 6 rooms," while 24.40% have "6 to 7 rooms." Moreover, 22.00% have "More than 8 rooms," and 12.00% have "Less than 4 rooms." This variation in living conditions may provide insights into how the number of rooms in a household relates to health awareness.

Amount of Individuals per Room: Participants report varying numbers of individuals per room in their homes. The majority (63.00%) have "One" person per room, while 16.40% have "Three" individuals in a room. Additionally, 13.00% have "Two" individuals per room, and 7.60% have "More than four" individuals in a room. This data offers valuable information on living space and its potential effects on health awareness.

Table 4: Distribution of Medical characteristics according to study population.

Medical characteristics	N	Percentage %
To what extent do you care about your health		
A great deal	178	35.60%
A lot	122	24.40%
Somewhat	92	18.40%
I don't care	79	15.80%
I don't care at all	29	5.80%
Overall	500	100.00%
Do you suffer from any medical symptoms		
Yes	211	42.20%
No	289	57.80%
Overall	500	100.00%
How much do you weigh?		
Less than 60kg	85	17.00%
60-70kg	218	43.60%
71-79kg	122	24.40%
More than 80kg	75	15.00%
Overall	500	100.00%
How tall are you in (cm)		
Less than 160cm	71	14.20%
160-169cm	138	27.60%
170-179cm	258	51.60%
Taller than 180cm	33	6.60%
Overall	500	100.00%
How is your health		

Excellent	210	42.00%
Good	122	24.40%
Normal	98	19.60%
Bad	70	14.00%
Overall	500	100.00%

Table 4 provides insights into the distribution of medical characteristics within the study population, offering valuable information regarding the participants' attitudes toward health, the presence of medical symptoms, and their physical attributes.

To What Extent Do You Care About Your Health: The data highlights that a significant portion of the study population places a considerable emphasis on their health. Notably, 35.60% of participants care "A great deal" about their health, and 24.40% are "A lot." Additionally, 18.40% care "Somewhat," while 15.80% reported that they "Don't care" or "Don't care at all." This diverse range of attitudes toward health underscores the importance of assessing personal health concerns when studying health awareness among Saudi families.

Do You Suffer from Any Medical Symptoms: The data indicates that a substantial portion of the participants (42.20%) reported experiencing medical symptoms, while 57.80% did not. This information is essential for understanding the health status of the study population and its potential impact on health awareness.

How Much Do You Weigh: Participants' weights vary, with 43.60% falling within the "60-70kg" range. Additionally, 24.40% weigh "71-79kg," 17.00% weigh "Less than 60kg," and 15.00% weigh "More than 80kg." This diversity in weight provides insights into the physical characteristics of the study population, which may have implications for health awareness.

How Tall Are You in (cm): The data reveals that the majority (51.60%) are "170-179cm" in height. Furthermore, 27.60% fall within the "160-169cm" range, 14.20% are "Less than 160cm" in height, and 6.60% are "Taller than 180cm." These variations in height provide additional insights into the physical attributes of the study population.

How Is Your Health: Participants reported diverse health statuses, with 42.00% describing their health as "Excellent," 24.40% as "Good," 19.60% as "Normal," and 14.00% as "Bad." This information is essential for understanding the self-perceived health status of the participants, which can influence their health awareness and practices.

Study of the correlational relationship between personal variables

Personal variables are of great importance in all statistical analyses, as they determine the nature of the answers to the rest of the questionnaire questions. In addition to the above, it remains to study the correlational relationship between these personal variables. Since some of these variables are digital variables, the Pearson correlation coefficient was used to determine the relationship between the set of personal variables in the study. Through the SPSS statistical program, it was possible to obtain the correlation matrix shown in Table (5). From this, we can conclude the following:

There is no perfect correlation between one variable and another.

The age variable is one of the variables that were found to have correlational relationships with the other variables. These relationships are as follows:

There is a positive correlation at a significance level of less than 0.05 (two-tailed test) between age and social status, where the value of the correlation coefficient was (0.58 = r). This explains the human reality that the older a person gets, the more likely they are to become divorced or widowed.

There is an inverse correlation between age and type of profession at a significance level of less than 0.05 (two-tailed test).

There is a positive correlation at a significance level of less than 0.05 (two-tailed test) between gender and educational level, meaning that females are more likely to have higher educational levels than males. This is because the highest educational level at which the respondents participated had a higher percentage of females than males, while the lowest educational level had a lower percentage of females than males.

Age is correlated with the monthly income variable with a positive relationship at a significance level of less than 0.05. This is because, naturally, the higher a person's position on the job ladder, the higher their income.

There is an inverse correlation at a significance level of less than 0.05 (two-tailed test) between place of residence and monthly income, meaning that the person's income is lower if they move to the northern emirates.

The profession variable is the next variable that was found to have correlational relationships with the other variables. These relationships are with all the other variables at a significance level of less than 0.05.

Table 5: distribution of the study samples based on (actions taken by Abon feeling unwell, seeking professional medical care, the decision to seek medical help, and amount of individuals)

	N	Agree %	Neutral %	Disagree %
distribution of the study samples based on actions taken by Abon feeling unwell				
I keep track of my symptoms personally	111	59.46%	38.74%	1.80%
I present my symptoms to family and friends	87	77.01%	13.79%	9.20%
I take medicine that was used by my family before	88	67.05%	25.00%	7.95%
I get medicine from the pharmacy without a doctor's prescription	71	45.07%	22.54%	32.39%
I get a checkup on my local herbalist	33	9.09%	30.30%	60.61%
I pray to god	62	96.77%	3.23%	0.00%
I do nothing and hope god heals me while keeping track of my symptoms	12	0.00%	25.00%	75.00%
I go to a psychiatrist when I feel unwell (why a psychiatrist only?)	36	16.67%	13.89%	69.44%
When should you seek professional medical care				
Periodically	70	94.29%	5.71%	0.00%
When directly experiencing symptoms	44	45.45%	45.45%	9.09%
When the symptoms become too extreme to bear	30	93.33%	6.67%	0.00%
When my family attempted to apprehend the symptoms, have failed	24	54.17%	41.67%	29.17%

	N	Agree %	Neutral %	Disagree %
When home medicine completely fails	49	18.37%	44.90%	36.73%
When the popular remedy that I took fails	79	24.05%	18.99%	56.96%
When my mental health is affected	69	17.39%	43.48%	39.13%
When my physical health is compromised	135	24.44%	40.74%	34.81%
who decides to seek medical help				
Me alone	139	80.58%	15.83%	3.60%
Family	65	50.77%	30.77%	6.15%
Pharmacy	181	75.14%	23.20%	1.66%
Friends	115	36.52%	15.65%	47.83%
distribution of the study samples based on the number of individuals				
Always follow medical advice from professionals	127	81.10%	10.24%	8.66%
Finish the doctor's prescription	41	39.02%	53.66%	7.32%
Take medication prescribed by friends	40	37.50%	40.00%	22.50%
I use healing and protecting spells to prevent illness	29	20.69%	51.72%	27.59%
I prefer a high-fat diet	37	27.03%	43.24%	29.73%
I prefer sleeping directly after eating	25	88.00%	8.00%	4.00%
I wait an hour after eating before going to bed	23	82.61%	8.70%	8.70%
I prefer a green diet with vegetables and fruits	28	39.29%	57.14%	3.57%
I eat fast food often	40	55.00%	20.00%	25.00%
I follow a strict diet	45	55.56%	22.22%	22.22%
I only have dinner	35	62.86%	31.43%	5.71%
I follow a strict no salt, no fat, no overeating diet	30	93.33%	6.67%	0.00%

Table 5 provides a detailed distribution of the study samples based on several key medical characteristics and health-related practices. This data offers valuable insights into the participants' attitudes and behaviors when it comes to addressing health issues and seeking medical care.

Actions Taken When Feeling Unwell: The table reveals a diverse range of responses regarding actions taken when feeling unwell. A significant portion of the respondents take a proactive approach, with 59.46% indicating that they keep track of their symptoms. A substantial 77.01% present their symptoms to family and friends, suggesting the importance of social support. A considerable 67.05% rely on medicine previously used by their family. It is noteworthy that 45.07% obtain medication from a pharmacy without a doctor's prescription, indicating a degree of self-medication. Interestingly, 96.77% of participants mention praying to God, reflecting the significance of spiritual practices in their health beliefs. However, 75.00% do nothing and hope for divine healing while tracking their symptoms, and 69.44% opt for psychiatric care when feeling unwell, despite not being a conventional choice for many.

When Should You Seek Professional Medical Care: The participants have varied perspectives on when to seek professional medical care. A significant majority, at 94.29%, believe in periodic check-ups, reflecting a proactive approach to health. However, 45.45% tend to seek care only when they directly experience symptoms. Notably, 93.33% prioritize seeking care when symptoms become extremely unbearable. The decision to seek medical help is also

influenced by the failure of home remedies or popular remedies for a substantial portion of the respondents.

Who Makes the Decision to Seek Medical Help: The table provides insights into the influencers behind the decision to seek medical care. A significant 80.58% of respondents make this decision independently. The pharmacy plays a critical role in 75.14% of cases, highlighting the influence of over-the-counter medication. Family also has a considerable impact, with 50.77% mentioning their role in the decision-making process. Interestingly, friends influence the decision for 36.52% of participants, emphasizing the importance of peer relationships in healthcare choices.

Distribution of the Study Samples Based on the Amount of Individuals: The data presents a wide array of responses regarding health-related preferences and habits. A substantial 81.10% of respondents always follow medical advice from professionals, underscoring the importance of expert guidance. Interestingly, 93.33% adhere to a strict no salt, no fat, no overeating diet, indicating a strong commitment to healthy eating. These diverse responses reflect the complexity of health-related choices within the study population, highlighting the need to consider various factors and beliefs in understanding health awareness among Saudi families.

Table 6: distribution of the study samples based on (general preference for traditional, signs that I have a vitamin D deficiency, and amount of awareness of medical malpractice)

	N	Agree %	Neutral %	Disagree %
distribution of the study samples based on the general preference for traditional				
I use herbs for stomach pain and the common cold	232	65.52%	23.71%	10.78%
I tend to resort to cauterization therapy to treat ulcers and cancerous tumors	97	65.98%	11.34%	22.68%
The best use of cupping for health and recovery from some diseases	114	71.93%	21.93%	6.14%
Resort to folk medicine to treat fractures or bone cracks. Use salt and Arabic dairy to treat	33	36.36%	60.61%	3.03%
I use salt and Arabian gum to treat my wounds	24	8.33%	58.33%	33.33%
distribution of the study samples based on the signs that I have a vitamin D deficiency				
Bone pain	222	70.72%	22.52%	6.76%
Depression	17	29.41%	58.82%	11.76%
Gaining weight	36	44.44%	27.78%	27.78%
Sweating from the head	22	54.55%	22.73%	22.73%
Gut problems	55	45.45%	18.18%	36.36%
Asthma	41	48.78%	36.59%	14.63%
High blood pressure	107	54.21%	42.06%	3.74%
distribution of the study samples based on the amount of awareness of medical malpractice				
Surgical intervention	66	53.03%	18.18%	27.27%
The patient fell on the floor while in the hospital	38	47.37%	26.32%	26.32%
Wrong medication dosage	42	19.05%	52.38%	28.57%
Infection due to improper environment disinfection	112	51.79%	44.64%	3.57%
Failure to identify the patient	27	22.22%	22.22%	55.56%
Failure to cooperate with the rest of the medical team	55	40.00%	21.82%	38.18%

Table 6 provides insights into the distribution of the study samples based on preferences for traditional medicine, signs of vitamin D deficiency, and awareness of medical malpractice. These factors shed light on the participants' beliefs and practices in the realm of healthcare.

General Preference for Traditional Medicine: The data reveals a mixed attitude towards traditional medicine. Participants often employ traditional methods to address health concerns. For example, 65.52% use herbs for stomach pain and the common cold. Cauterization therapy to treat ulcers and cancerous tumors is resorted to by 65.98%. The best use of cupping for health and recovery from some diseases is favored by 71.93%. However, when it comes to treating fractures or bone cracks, 60.61% tend to use salt and Arabic dairy, while only 36.36% resort to folk medicine for the same purpose. A similar pattern is observed in the use of salt and Arabian gum to treat wounds, where 58.33% have a neutral stance, but 33.33% disagree with the practice.

Signs of Vitamin D Deficiency: The data indicates that a significant majority (70.72%) associate bone pain with a potential vitamin D deficiency. On the other hand, when it comes to depression, 58.82% have a neutral stance, and 29.41% disagree with it being a sign of vitamin D deficiency. Gaining weight is seen as a potential sign by 44.44% of respondents, while 27.78% remain neutral and another 27.78% disagree. Sweating from the head is associated with vitamin D deficiency by 54.55%, with 22.73% neutral, and another 22.73% disagree. Gut problems are considered a sign by 45.45%, with 36.36% disagreeing and 18.18% neutral. Similarly, 48.78% link asthma to a potential deficiency, with 36.59% having a neutral stance and 14.63% disagreeing. High blood pressure is seen as a potential sign by 54.21%, with 42.06% remaining neutral and 3.74% disagreeing.

Awareness of Medical Malpractice: Participants have varying levels of awareness regarding medical malpractice. Surgical intervention as a form of malpractice is acknowledged by 53.03%, with 27.27% disagreeing and 18.18% remaining neutral. The patient falling on the floor while in the hospital is seen as a potential malpractice by 47.37%, with 26.32% neutral and another 26.32% disagreeing. Wrong medication dosage is recognized as a form of malpractice by 52.38%, with 28.57% disagreeing and 19.05% remaining neutral. Infection due to improper environment disinfection is viewed as malpractice by 51.79%, with 44.64% having a neutral stance and 3.57% disagreeing. Failure to identify the patient is acknowledged as malpractice by 55.56%, with 22.22% neutral and another 22.22% disagreeing. Failure to cooperate with the rest of the medical team is seen as a form of malpractice by 40.00%, with 38.18% neutral and 21.82% disagreeing.

Conclusions:

1. **Diverse Healthcare Preferences:** The study reveals a wide spectrum of healthcare preferences and practices among the Saudi family participants. While some rely on traditional methods and remedies, others show a preference for modern healthcare approaches.
2. **Varied Awareness of Vitamin D Deficiency:** Participants displayed differing levels of awareness regarding signs of vitamin D deficiency. Addressing the need for education

and awareness campaigns regarding vitamin D deficiency is crucial to improving health awareness.

3. **Mixed Awareness of Medical Malpractice:** The findings highlight a range of awareness levels concerning medical malpractice. Healthcare institutions should prioritize transparency and effective communication to enhance patient awareness and trust.
4. **Influence of Cultural and Traditional Beliefs:** Traditional and cultural practices play a significant role in the healthcare decisions of many participants. Understanding and respecting these cultural factors is essential for healthcare providers.

Recommendations:

1. **Health Education Programs:** Implement comprehensive health education programs to inform the population about the importance of vitamin D and its sources. These programs should address the signs of vitamin D deficiency and its impact on overall health.
2. **Promotion of Safe Practices:** Promote safe and evidence-based traditional practices while discouraging potentially harmful remedies. Provide information to the public about the risks and benefits associated with various traditional treatments.
3. **Enhanced Medical Malpractice Awareness:** Healthcare institutions and authorities should invest in campaigns and initiatives that raise awareness about medical malpractice and patients' rights. Transparency and trust-building measures are vital.
4. **Cultural Competency Training:** Healthcare professionals should undergo cultural competency training to better understand and respect the cultural and traditional beliefs of their patients. This will facilitate more effective patient-provider relationships.
5. **Interdisciplinary Collaboration:** Encourage collaboration and communication among different healthcare providers, including traditional and modern practitioners, to ensure patients receive comprehensive care and sound advice.
6. **Research and Further Study:** Conduct additional research to delve deeper into the factors that influence health awareness among Saudi families. This will help in the development of more targeted interventions and strategies.
7. **Community Engagement:** Engage communities in health promotion and awareness efforts. Involving community leaders and influencers can enhance the reach and impact of healthcare initiatives.
8. **Policy Improvements:** Advocate for policies that prioritize patient safety and encourage healthcare providers to adhere to high standards of care. Legislation should address medical malpractice and provide recourse for affected individuals.

Reference

- [1] S. M. Al-Zalfawi *et al.*, "Public knowledge, attitude, and perception towards COVID-19 vaccination in Saudi Arabia," *International Journal of Environmental Research and Public Health*, vol. 18, no. 19, p. 10081, 2021.
- [2] M. Alhajji, A. Al Khalifah, M. Aljubran, and M. Alkhalifah, "Sentiment analysis of tweets in Saudi Arabia regarding governmental preventive measures to contain COVID-19," 2020.

- [3] S. S. Aljameel *et al.*, "A sentiment analysis approach to predict an individual's awareness of the precautionary procedures to prevent COVID-19 outbreaks in Saudi Arabia," *International journal of environmental research and public health*, vol. 18, no. 1, p. 218, 2021.
- [4] G. Alkhaldi *et al.*, "Perceptions towards COVID-19 and adoption of preventive measures among the public in Saudi Arabia: a cross sectional study," *BMC public health*, vol. 21, no. 1, pp. 1-21, 2021.
- [5] A. W. Bateman and P. Fonagy, *Handbook of mentalizing in mental health practice*. American Psychiatric Pub, 2019.
- [6] R. Bommasani *et al.*, "On the opportunities and risks of foundation models," *arXiv preprint arXiv:2108.07258*, 2021.
- [7] T. Bond, Z. Yan, and M. Heene, *Applying the Rasch model: Fundamental measurement in the human sciences*. Routledge, 2020.
- [8] J. Bröder *et al.*, "Health literacy in childhood and youth: a systematic review of definitions and models," *BMC public health*, vol. 17, no. 1, pp. 1-25, 2017.
- [9] J. Cairney, D. Dudley, M. Kwan, R. Bulten, and D. Kriellaars, "Physical literacy, physical activity and health: Toward an evidence-informed conceptual model," *Sports Medicine*, vol. 49, pp. 371-383, 2019.
- [10] S. M. Chafouleas, A. H. Johnson, S. Overstreet, and N. M. Santos, "Toward a blueprint for trauma-informed service delivery in schools," *School Mental Health*, vol. 8, pp. 144-162, 2016.
- [11] S. Chowdhury, D. Mok, and L. Leenen, "Transformation of health care and the new model of care in Saudi Arabia: Kingdom's Vision 2030," *Journal of Medicine and Life*, vol. 14, no. 3, p. 347, 2021.
- [12] W. T. Elgzar, A. M. Al-Qahtani, N. K. Elfeki, and H. A. Ibrahim, "COVID-19 outbreak: effect of an educational intervention based on health belief model on nursing students' awareness and health beliefs at Najran University, Kingdom of Saudi Arabia," *African journal of reproductive health*, vol. 24, no. 2, pp. 78-86, 2020.
- [13] S. D. Erdley, D. D. Anklam, and C. C. Reardon, "Breaking barriers and building bridges: Understanding the pervasive needs of older LGBT adults and the value of social work in health care," in *Lesbian, Gay, Bisexual, and Transgender Aging*: Routledge, 2017, pp. 288-311.
- [14] H. Fan and R. Lederman, "Online health communities: how do community members build the trust required to adopt information and form close relationships?," *European Journal of information systems*, vol. 27, no. 1, pp. 62-89, 2018.
- [15] M. Ferreira, B. Martinsone, and S. Talić, "Promoting sustainable social emotional learning at school through relationship-centered learning environment, teaching methods and formative assessment," *Journal of Teacher Education for Sustainability*, vol. 22, no. 1, pp. 21-36, 2020.

- [16] A. Garg, R. Boynton-Jarrett, and P. H. Dworkin, "Avoiding the unintended consequences of screening for social determinants of health," *Jama*, vol. 316, no. 8, pp. 813-814, 2016.
- [17] F. Hill-Briggs *et al.*, "Social determinants of health and diabetes: a scientific review," *Diabetes care*, vol. 44, no. 1, p. 258, 2021.
- [18] M. A. Hillen, C. M. Gutheil, T. D. Strout, E. M. Smets, and P. K. Han, "Tolerance of uncertainty: Conceptual analysis, integrative model, and implications for healthcare," *Social Science & Medicine*, vol. 180, pp. 62-75, 2017.
- [19] S. A. Kamal, M. Shafiq, and P. Kakria, "Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM)," *Technology in Society*, vol. 60, p. 101212, 2020.
- [20] A. Larkin and P. Hystad, "Towards personal exposures: how technology is changing air pollution and health research," *Current environmental health reports*, vol. 4, pp. 463-471, 2017.
- [21] R. Rahman, "The privatization of health care system in Saudi Arabia," *Health services insights*, vol. 13, p. 1178632920934497, 2020.