# THE ROLE OF SOCIAL SUPPORT AND PATIENT EMPOWERMENT THROUGH ONLINE HEALTH COMMUNITIES IN ENHANCING PATIENT–PHYSICIAN RELATIONSHIP

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**Purpose:** The goal of this project is to investigate how online health communities can improve patient-physician relationships by providing social support and patient empowerment.

**Theoretical framework:** Nowadays, on online health forums, patients can connect with other patients and healthcare professionals and share knowledge and experiences. However, there is a dearth of research on how patient-physician relationships might be improved via online health communities.

**Design/Methodology/Approach:** In this analytical study, a sample of 61 individuals receiving treatment in Jordan's private hospitals were given a questionnaire via two of the most popular health communities' Facebook pages.

**Findings:** The findings showed that while patient empowerment had no impact on the patient-physician connection, computer-mediated social support had an impact on that relationship. These findings support the need to suggest Jordanian online health community models that might strengthen this kind of engagement.

**Research, Practical and Social Implications:** Online health community providers need to be aware of the tactics they should use in these communities to strengthen the patient-physician relationship and integrate these efforts into patient treatment. Additionally, these communities can help medical practitioners ensure that patients receive the appropriate information and type of support.

**Originality/Value:** As online health groups grew, so did the number of patients who relied on them for information and emotional support. Although the majority of studies focused on this type of support, little is known about how it affects the patient-physician interaction.

## O PAPEL DO APOIO SOCIAL E DO EMPODERAMENTO DO PACIENTE POR MEIO DE COMUNIDADES DE SAÚDE ON-LINE NO APRIMORAMENTO DO RELACIONAMENTO MÉDICO-PACIENTE

**RESUMO**

**Propósito:** o objetivo deste projeto é investigar como as comunidades de saúde on-line podem melhorar as relações médico-paciente, fornecendo suporte social e capacitação ao paciente.

**Quadro teórico:** Hoje em dia, em fóruns de saúde on-line, os pacientes podem se conectar com outros pacientes e profissionais de saúde e compartilhar conhecimentos e experiências. No entanto, há uma escassez de pesquisas sobre como o relacionamento médico-paciente pode ser melhorado através de comunidades de saúde on-line.

**Design/Metodologia/Abordagem:** Neste estudo analítico, uma amostra de 61 indivíduos que receberam tratamento em hospitais privados da Jordânia recebeu um questionário por meio de duas das páginas do Facebook das comunidades de saúde mais populares.

**Descobertas:** As descobertas mostraram que, embora a capacitação do paciente não tivesse impacto na conexão médico-paciente, o suporte social mediado por computador teve impacto nesse relacionamento. Essas descobertas

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reforçam a necessidade de sugerir modelos jordanianos de comunidades de saúde online que fortaleçam esse tipo de engajamento.

**Pesquisa, Implicações práticas e Sociais:** os provedores de comunidade de saúde on-line precisam estar cientes das táticas que devem usar nessas comunidades para fortalecer o relacionamento médico-paciente e integrar esses esforços no tratamento do paciente. Além disso, essas comunidades podem ajudar os médicos a garantir que os pacientes recebam as informações adequadas e o tipo de apoio necessário.

**Originalidade/Valor:** À medida que os grupos de saúde online cresciam, também crescia o número de pacientes que dependiam deles para obter informações e apoio emocional. Embora a maioria dos estudos tenha se concentrado nesse tipo de suporte, pouco se sabe sobre como ele afeta a interação médico-paciente.

**Palavras-chave:** Comunidades de Saúde On-line, Apoio Social, Capacitação do Paciente, Relacionamento Médico-Paciente

## EL PAPEL DEL APOYO SOCIAL Y EL EMPODERAMIENTO DEL PACIENTE A TRAVÉS DE COMUNIDADES DE SALUD EN LÍNEA PARA MEJORAR LA RELACIÓN MÉDICO-PACIENTE

**RESUMEN**

**Propósito:** El objetivo de este proyecto es investigar cómo las comunidades de salud en línea pueden mejorar las relaciones médico-paciente proporcionando apoyo social y empoderamiento del paciente.

**Marco teórico:** Hoy en día, en los foros de salud en línea, los pacientes pueden conectarse con otros pacientes y profesionales de la salud y compartir conocimientos y experiencias. Sin embargo, existe una escasez de investigaciones sobre cómo se podrían mejorar las relaciones médico-paciente a través de comunidades de salud en línea.

**Diseño/Metodología/Enfoque:** En este estudio analítico, una muestra de 61 individuos que recibieron tratamiento en hospitales privados de Jordania recibieron un cuestionario a través de dos de las páginas de Facebook de las comunidades de salud más populares.

**Hallazgos:** Los hallazgos mostraron que si bien el empoderamiento del paciente no tuvo impacto en la conexión médico-paciente, el apoyo social mediado por computadora sí tuvo impacto en esa relación. Estos hallazgos apoyan la necesidad de sugerir modelos jordanos de comunidades de salud en línea que podrían fortalecer este tipo de compromiso.

**Investigación, Implicaciones prácticas y Sociales:** Los proveedores de la comunidad de salud en línea deben ser conscientes de las tácticas que deben utilizar en estas comunidades para fortalecer la relación médico-paciente e integrar estos esfuerzos en el tratamiento del paciente. Además, estas comunidades pueden ayudar a los médicos a garantizar que los pacientes reciban la información y el tipo de apoyo adecuados.

**Originalidad/Valor:** A medida que los grupos de salud en línea crecían, también lo hacía el número de pacientes que dependían de ellos para obtener información y apoyo emocional. Aunque la mayoría de los estudios se centraron en este tipo de apoyo, poco se sabe sobre cómo afecta a la interacción médico-paciente.

**Palabras clave:** Comunidades de Salud en Línea, Apoyo Social, Empoderamiento del Paciente, Relación Médico-Paciente.

## INTRODUCTION

Online communities for health are seen as important eHealth Internet applications (McMullan, 2006), as they are crucial to the transition from conventional doctor-patient relationships to patient-centered partnerships (Keating et al., 2002; Mazor et al., 2012). New analytic frameworks are required because to the significant changes that the healthcare industry has undergone. Patients today are more than just those who receive treatments and care; they are also consumers, members of their communities, citizens, and alternatives. co-creators (Ewert, 2016), and significant participants in the information society (Mäkinen, 2006). Additionally, by using their own alternatives and services, patient cooperatives can organize

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their own liberation and overcome a shortage of services or options. The internet has increased this capacity to support patient empowerment (Buccoliero, Bellio, Mazzola, & Solinas, 2015; Nickel, Trojan, & Kofahl, 2017).

The Internet can change how people obtain health information by giving patients a greater sense of control and happiness, which may potentially cause problems in the context of doctor-patient interactions. As physicians' responsibilities shift from "processors of information" to "providers of information," (Hart, Henwood, & Wyatt, 2004), their roles as providers of information can potentially strengthening relationship with patients (Jacobson, 2007).

Within online groups where people engage in conversation and interaction with others, social support has been highlighted as a crucial source of fulfillment for patients. Social support has the power to immediately impact the outcome of a treatment and the healing process (Kim, Kaplowitz, & Johnston, 2004; Simbolon, Girsang, & Nasution, 2020). While patients' perceived social support can be a significant online communities outcome, they can support the patient relation with the physicians as confirmed by (James, Calderon, & Scholar, 2022; Nambisan, 2011; Oh & Lee, 2012; Wang, Zhao, & Street, 2017) who studied this relationship within more mature online health communities. This study will clarify the impact of Facebook-based online health communities in Jordan on improving the patient-physician interaction.

## LITERATURE REVIEW

### Social Support Through Online Health Communities

while some studies reviewed the effect of social media on health (Panchanathan & Raj, 2022) and in helping for patients intentions prediction (SN & Manivannan, 2022). The social support that is exchanged between those communities' members has been stressed in studies on online health communities (Maloney-Krichmar & Preece, 2005). The majority of online health communities are built on patients who ask for assistance from other patients, healthcare experts, or providers, and where psychosocial support leads to effective disease management (Resnick, Janney, Buis, & Richardson, 2010). Patients' diabetic problems improved much more when they worked with peers than when they sought expert assistance (Heisler, Vijan, Makki, & Piette, 2010).

Although both types of support are classified as social support in online health groups, psychological support and informational support have a big impact there. Patients are advised to attend online health forums to learn about daily management techniques, benefit from the

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knowledge of their peers, and ask questions about their illnesses (Huh, McDonald, Hartzler, & Pratt, 2013).

## Patient Empowerment Through Online Health Communities

Knowing one's coping methods, treatment alternatives, and health conditions from the patient's perspective is essential for good healthcare management (Yan, Peng, & Tan, 2015). However, this is ineffective since patients should be dedicated to adhering to treatment regimens, confident that they are receiving appropriate care for their circumstances, and equipped with the necessary information and assistance to manage their own health (Yan et al., 2015; Yan & Tan, 2010).

Patients are helped by online health communities by having access to important materials that are shared by members. These priceless details consist of individual success tales, home remedies, and unique health experiences that support information sharing and confidence-building (Frost & Massagli, 2008). Because of the searchability, indexing, and storing capabilities of online health communities, this information is valuable to both passive and active community members (Johnston, Worrell, Di Gangi, & Wasko, 2013; Wicks et al., 2010).

## Enhancing Patient–Physician Relationship Through Online Health Communities

Modern medicine advocates for improved care, and social support is crucial to accomplishing this objective because it helps patients cope with their condition more. Patients can more readily form close bonds, have discussions, and get together to find emotional support and mutual understanding with improved communication (van Uden-Kraan, Drossaert, Taal, Seydel, & van de Laar, 2009). Some evidence suggests that social assistance lowers patients' psychological discomfort and improves their quality of life (Mo & Coulson, 2012).

According to related research, social support obtained through online health communities would enhance patients' capacities to mobilize the required resources to take charge of their life, solve their problems, and meet their demands (Petrič, Atanasova, & Kamin, 2017). These places will benefit patients' engagement in their doctor-patient relationship and participation during the appointment (Audrain-Pontevia & Menvielle, 2018).

**METHODOLOGY**

With the aim of diagnosing the study problem, analyzing it, extracting results, formulating and interpreting them, this study used a questionnaire distributed to a sample of patients who had been diagnosed with a specific medical condition or disease in the Jordanian private hospitals. This descriptive approach investigates opinions and knowledge trends.

**Study Population and Sample**

The study population consists of all Facebook members who have been diagnosed with a certain medical ailment or disease and have experienced or are experiencing medical care in one of the private hospitals in Jordan. On the other hand, the study sample was chosen at random and was made up of all the patients who consented to take part after the link was placed in the two biggest Facebook health communities that include patients at Jordanian private hospitals. The study sample included 61 patients, and table (1) below lists the characteristics of the study sample.

Table (1): Characteristics of the study sample

| Variable | | Frequency | Percentage |
|---|---|---|---|
| **Gender** | **Male** | 37 | 60.7% |
| | **Female** | 24 | 39.3% |
| | **Total** | **61** | **100%** |
| **Age** | **18-34 years old** | 7 | 11.5% |
| | **35-49 years old** | 24 | 39.3% |
| | **50-65 years old** | 21 | 34.4% |
| | **65 years old and more** | 9 | 14.8% |
| | **Total** | **61** | **100%** |
| **Education** | **High school graduate** | 33 | 54.1% |
| | **College graduate** | 26 | 42.6% |
| | **Graduate college or higher** | 2 | 3.3% |
| | **Total** | **61** | **100%** |
| **Social status** | **Employed** | 38 | 62.3% |
| | **Not employed** | 23 | 37.7% |
| | **Total** | **61** | **100%** |
| **Health status** | **Chronic illness reported** | 17 | 27.9% |
| | **No chronic disease declared** | 44 | 72.1% |
| | **Total** | **61** | **100%** |

Source: Prepared by author, 2023

**Instrumentation**

The questionnaire, which was created by the author and had two sections—demographics and study questions—was the research tool utilized to gather the primary data. Computer-mediated social support (7 paragraphs), feeling empowered (6 paragraphs), participating2DRS in the consultation (4 paragraphs), and relationship with the doctor (5

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paragraphs) made comprised the four sections of the study questions. By publishing the survey link to the two biggest online health communities on Facebook, which include patients at Jordan's private hospitals, the questionnaire was spread online. The paragraphs were rated using the Likert 5 scale.

**Validity and Reliability of the Study Tool**

By presenting the questionnaire to a panel of faculty members with expertise in healthcare management to explore their views on its ability to measure the study variables and ensure the clarity and accuracy of its paragraphs, the consistency of the questionnaire and its ability to measure study variables in accordance with the rules of scientific research were checked. To fit the study's goals, their advice and opinions have been taken and adjusted. After that, in order to gauge the degree of clarity and understanding of the questionnaire items, the researcher ran a test study using a pilot sample of five patients drawn from both the study community and outside the study sample. In light of the observations they made, as well as their relevance and significance to the aims of the study, the questionnaire's paragraphs were revised as a result. Each paragraph of the questionnaire's degrees and the overall degree of the area to which the paragraphs belong were compared using the Pearson correlation coefficient, which ranged from 0.765 to 0.804. It is also evident from the results that there is a high degree of internal consistency, which implies a high degree of consistency, with the values of the correlation coefficients between each of the research areas and the total mean of the questionnaire items being high and medium.

The reliability of the study tool was confirmed by testing the reliability coefficient using the internal consistency method, which is the Cronbach Alpha method. It is clear from the table that the reliability coefficient of the study variables is very high, indicating that the questionnaire has a high degree of reliability that can be relied upon in the field application of the study sample.

Table (2): Cronbach Alpha coefficients for the questionnaire areas (pilot study, n=5)

| Area | No. of paragraphs | Alphas' Cronbach coefficients |
|---|---|---|
| Computer-Mediated Social Support | 7 | 0.91 |
| Sense of empowerment | 6 | 0.87 |
| Participation during the consultation | 4 | 0.72 |
| Relationship with the physician | 5 | 0.88 |

Source: Prepared by author, 2023

## Statistical Analysis

The statistical program (SPSS) was used to code and analyze the quantitative data of the questionnaire, which was applied to the study sample members, where the descriptive statistics were relied on, besides the available tools, based on the appropriate nature of the data and the nature of the data. Cronbach Alpha coefficient was used to check the reliability of the tool, while Pearson correlation coefficient was used to check the consistency of questionnaire items. Finally, stepwise regression analysis was used to identify the factors that contribute to predicting the relationship with the physician.

## RESULTS AND DISCUSSION

This section includes presentation of the main results of the study and it is consisted of two parts; the first one will include the descriptive data of the study variables, while the second part will include the results of the stepwise regression to identify the factors that contribute to predicting the relationship with the physician. The descriptive data of the independent variables are presented in Table (3) below, where they are ranked according to their means.

Table (3): Means, standard deviations and levels of the independent variables (Computer-Mediated Social Support, Sense of empowerment and Participation during the consultation)

| No. | Paragraph | Rank | Mean | St. deviation | Level |
|---|---|---|---|---|---|
| 1 | I receive caring and helping from the community member | 3 | 4.26 | 1.05 | High |
| 2 | If I post my concerns on the board, members will try to help me. | 2 | 4.29 | 1.10 | High |
| 3 | I feel comforted by showing my affection to community members regarding my disease. | 7 | 3.90 | 1.36 | High |
| 4 | Community members encourage me when I hesitate to make up my mind. | 6 | 4.11 | 1.14 | High |
| 5 | Community members respect me so that I can feel confident. | 4 | 4.15 | 1.24 | High |
| 6 | When my health improves, community members will encourage and congratulate me. | 5 | 4.12 | 1.23 | High |
| 7 | Community members respect my opinion and perceive me positively | 1 | 4.30 | 1.07 | High |
| | **Computer-Mediated Social Support** | | **4.16** | **1.17** | **High** |
| 1 | I can motivate myself to manage my disease and make a better life | 1 | 4.13 | 1.25 | High |
| 2 | I will make use of necessary means and goods to effectively manage my disease | 4 | 4.05 | 1.44 | High |
| 3 | I can understand my disease better than anyone | 2 | 4.11 | 1.37 | High |
| 4 | I can manage my disease conditions | 5 | 4.03 | 1.15 | High |
| 5 | I can make every possible effort to achieve disease goals | 6 | 3.97 | 1.39 | High |
| 6 | I am enthusiastic about my own efforts to manage disease | 3 | 4.07 | 1.33 | High |

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|---|---|---|---|---|---|
| | **Sense of empowerment** | | **4.06** | **1.32** | **High** |
| 1 | I discuss information received from other sources (e.g. family, friends, media, educational literature) with my doctor | 1 | 4.10 | 1.33 | High |
| 2 | I discuss alternative (not mainstream) care with my doctor | 3 | 3.90 | 1.34 | High |
| 3 | I direct my doctor on what needs to be addressed | 3 | 3.90 | 1.43 | High |
| 4 | I ask a lot of questions during my consultation | 2 | 3.93 | 1.40 | High |
| | **Participation during the consultation** | | **3.96** | **1.38** | **High** |

Source: Prepared by author, 2023

The findings revealed that involvement in the consultation came in last with a mean of 3.96, while computer-mediated social support had the highest mean of (4.16) in a high level, followed by a sense of empowerment (4.06). Additionally, the sentence from the computer-mediated social support section that reads, "Community members respect my opinion and perceive me positively" was ranked top with a mean of (4.30) and a high level. On the other hand, the sentences from the involvement during the consultation section that state "I discuss alternative (not mainstream) care with my doctor" and "I direct my doctor on what needs to be addressed" came in last with a mean of (3.90) and a high level. The descriptive data of the independent variables are presented in Table (3) below, where they are ranked according to their means.

Table (4): Means, standard deviations and levels of the independent variables (Relationship with the physician)

| No. | Paragraph | Rank | Mean | St. deviation | Level |
|---|---|---|---|---|---|
| 1 | Relationship with the physician is something we are very committed to | 1 | 3.80 | 0.99 | High |
| 2 | Relationship with the physician is important for me | 5 | 3.62 | 1.19 | Medium |
| 3 | Relationship with the physician is something I want to maintain indefinitely | 4 | 3.64 | 1.24 | Medium |
| 4 | Relationship with the physician is particularly important to me | 2 | 3.79 | 1.311 | High |
| 5 | Relationship with the physician deserves maximum effort to maintain | 3 | 3.72 | 1.24 | High |
| | **Relationship with the physician** | | **3.71** | **1.19** | **High** |

Source: Prepared by author, 2023

With a mean of (3.71), the findings demonstrate that the Relationship with the Physician area was at a high level. With a mean of 3.80 and a high level, the sentence "Relationship with the physician is something we are very committed to" came in first, while the sentence "Relationship with the physician is important for me" came in last with a mean of (3.62) and a medium level.

In order to identify the factors that contribute to predicting the relationship with the physician, the stepwise regression analysis was conducted and the results were as follows.

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Table (5): The results of a stepwise multiple regression analysis of variance to predict Relationship with the physician through the independent factors

| Factors | $R^2$ | F value | (f) sig. |
|---|---|---|---|
| **Computer-Mediated Social Support** | 0.521 | 8.137 | 0.006[*] |
| **Sense of empowerment** | 0.106 | 5.144 | 0.290 |
| **Participation during the consultation** | 0.049 | 4.328 | 0.256 |

* Significant at the level 0.01
Source: Prepared by author, 2023

Table (5) shows that the computer-mediated social support component has a p-value of 0.01, which denotes a statistically significant impact on predicting connection with the doctor. The other two elements (a sense of empowerment and engagement in the consultation) have no impact. Table (5) further shows that the cumulative determination coefficient was equal to R2 (500.0), which indicates that the computer-mediated social support element accounts for 50% of the entire relationship with the doctor. In order to arrive at the regression equation that would allow for the prediction of the relationship with the doctor, Table 6) shows the values of the regression coefficient constants where it is clear that there is a significant positive effect at level 0.01 for the computer-mediated social support factor on relationship with the physician.

Table (6): The values of the regression coefficient constants

| Independent variables | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| **Regression constant** | 5.791 | 0.461 | | 12.575 | 0.000* |
| **Computer-Mediated Social Support** | 0.284 | 0.100 | 0.348 | 2.853 | 0.006* |

* Significant at the level 0.01
Source: Prepared by author, 2023

## DISCUSSION

The findings demonstrated that online health communities are influencing the patient-physician interaction by improving the patient's social support. This is due to the fact that members of online health communities engage with other members who have a variety of social support needs, such as companionship, emotional support, and informational assistance, online. Furthermore, there is evidence linking patient participation levels with various forms of social support in online health groups (Wang, Zhao, & Street, 2014). This result is consistent with many studies that investigated the effect of online health communities on the patients' feel of social support (James et al., 2022; Nambisan, 2011; Oh & Lee, 2012; Wang et al., 2017). Nambisan (2011) argued that the empathy patients perceive is a critical factor in patient recovery, specially, by improving the compliance of the patient with treatment protocols and enhance the patient-physician relationship.

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However, there was no impact on the patient-physician interaction from patient empowerment through online health communities, which can be attributed to Jordan's immature state of online health communities. Numerous investigations are out in industrialized nations are incongruent with this outcome (Audrain-Pontevia & Menvielle, 2018; Fayn, des Garets, & Rivière, 2021; Ippolito, Smaldone, & Ruberto, 2019; Johnston et al., 2013; Stampe, Kishik, & Müller, 2021).

## CONCLUSION

Although Jordan's online health communities are still in their infancy, their impact on the patient-physician connection is encouraging. However, these communities ought to put more of an emphasis on patient empowerment and engagement in discussions. The health ministry should also make major efforts to involve online health communities in the routines for patients with chronic illnesses in public hospitals.

This study was constrained by the fact that computer-mediated social support is less prevalent in Jordan than in industrialized nations. Instead of having a dedicated platform, such communities are restricted to social media platforms, particularly Facebook, in Jordan. Additionally, this study was restricted to private hospitals, where these groups are more active, but a subsequent study that can explore this relationship at public hospitals, where the patient-physician interaction is already being criticized, will complement this study. Additional research can concentrate on particular patient types, particularly delicate ones where such relationships are essential to the healing process. Finally, it might be quite beneficial to suggest a social support network that is convenient for different cultures through a different platform.

In addition to the peer-to-peer character of the online health communities that were researched, another constraint is the external validity, which is constrained by the sample scope. To boost the external validity, it is advised to integrate more diverse groups from different nations. Finally, taking into account the disparities between patients with chronic diseases and those who have less serious ailments can improve the validity of the results.

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