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SCIENTIFIC ARTICLE

Assessment Of The Educational Needs In Patients With Knee Osteoarthritis In A Latin American Cohort

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SCIENTIFIC ARTICLE

Assessment Of The Educational Needs In Patients With Knee Osteoarthritis In A Latin American Cohort

Abstracts

In English

Background/Purpose

The Spanish version of the Educational Needs Assessment Tool (SpENAT), is a self-completed questionnaire that assesses the educational needs (ENs) in osteoarthritis (OA) patients, with the purpose of providing tailored and patient-centered information. This study established the sources of information that patients use and to evaluate the ENs of patients with knee osteoarthritis (KOA) using the SpENAT.

Material and Method

An international multicenter, prospective cross-sectional study in patients with KOA was performed in 9 Latin American countries. Demographic data, educational level, clinics, VAS, RAPID3 and sources of information were recorded. SpENAT Questionnaire consists of 39 questions grouped into 7 domains [Managing pain, movement, feelings, arthritis process (OA), medical treatments, self-help measures and support systems]. It was used to evaluate patient's attitudes toward OA (score of ENs 0 to 156).

Results:

1341 patients with KOA (78.9% women) from 9 Latin American countries were included in this study. Mean age was 63.99 years. Work disability was found in 1.8%. SpENAT median scores for patients with KOA were 116 (IQR 101–134). The scores for each domain were as follows: mean for pain domain 17.42, mobility 15.44, feelings 12.95, medical treatments 20.64, personal treatment 17.41 and support system 11.7.

Information on KOA was obtained from Rheumatologist 74.9%, Traumatologist 16.8%, internet 14.3%, primary care physician 10%, other health professionals 9.9%, written press 3.6%, radio 1.9%, television 0.9%, family and friends 10.7%.

Conclusion

The majority of patients show considerable educational needs (high SpENAT) and a greater interest in knowing about KOA and its treatment. Most patients presented high SpENAT and had a greater interest in knowing about KOA and its treatment. The greatest value of SpENAT was associated with resorting to a rheumatologist for better information. We consider it important recognizing both the ENs and sources of information that our patients with KOA use as an important starting point to develop better therapeutic decisions and strategies.

GLOBAL RHEUMATOLOGY
BY PANLAR

Abstracts

In Spanish

Introducción

El Educational Needs Assessment Tool-versión española (SpENAT) es un cuestionario que evalúa las necesidades educativas (NE) de pacientes. Este estudio estableció las fuentes de información que los pacientes utilizan y evalúa las NE de pacientes con OA de rodilla utilizando el SpENAT.

Material y método

Se realizó un estudio transversal, prospectivo, multicéntrico en pacientes con OA de rodilla en 9 países de Latinoamérica. Se registraron datos demográficos, nivel educativo, EVA, RAPID3 y fuentes de información. El SpENAT consta de 39 preguntas agrupadas en 7 dominios (dolor, movimiento, sentimientos, OA, tratamientos médicos, autoayuda y sistema de apoyo).

Resultados

Se incluyeron 1341 pacientes con OA de rodilla (78,9% mujeres). Edad mediana: 63,99 años. La discapacidad laboral: 1.8%. Las puntuaciones medias de SpENAT : 116 (RIC 101-134); dominio del dolor 17,42 (RIC 14-20), movilidad 15,44 (RIC 12-18), sentimientos 12,95 (RIC 10-16), OA 21,52 (RIC 18-25), tratamientos médicos 20,52 (RIC 16-24), autoayuda 17.41 (RIC14-20) y sistema de apoyo 12 (RIC 8-14). Para obtener información los pacientes acuden a reumatólogos 74,9%, cirujano ortopédico 16,8%, internet 14,3%, médico de atención primaria 10%, otros profesionales de la salud 9,9%, prensa escrita 3,6%, radio 1,9%, televisión 0,9%, familiares y amigos 10,7%.

Conclusión

La mayoría de los pacientes mostró una alta SpENAT y gran interés en conocer más sobre la OA. El mayor valor de SpENAT se asoció con consultar a un reumatólogo para obtener información. Consideramos importante reconocer tanto las NE como las fuentes de información que utilizan los pacientes con OA para desarrollar mejores decisiones terapéuticas.

Abstracts

In Portuguese

Introdução

A Ferramenta de Avaliação das Necessidades Educacionais - versão em espanhol (SpENAT) é um questionário que avalia as necessidades educacionais (NE) dos pacientes. Este estudo estabeleceu as fontes de informação que os pacientes utilizam e avalia a NE de pacientes com OA de joelho por meio do SpENAT.

Material y método

Estudo transversal, prospetivo e multicêntrico foi realizado em pacientes com OA de joelho em 9 países latino-americanos. Dados demográficos, escolaridade, VAS, RAPID3 e fontes de informação foram registrados. O SpENAT é composto por 39 questões agrupadas em 7 domínios (dor, movimento, sentimentos, OA, tratamentos médicos, autoajuda e sistema de apoio).

Resultados

1.341 pacientes com OA de joelho foram incluídos (78,9% mulheres). Idade média: 63,99 anos. Incapacidade para o trabalho: 1,8%. Pontuações médias no SpENAT: 116 (IQR 101-134); domínio da dor 17,42 (IQR 14-20), mobilidade 15,44 (IQR 12-18), sentimentos 12,95 (IQR 10-16), OA 21,52 (IQR 18-25), tratamentos médicos 20, 52 (RIC 16-24), autoajuda 17.41 (RIC14-20) e sistema de apoio 12 (RIC 8-14). Para obter informações, os pacientes vão a reumatologistas 74,9%, cirurgião ortopédico 16,8%, internet 14,3%, médico de atenção primária 10%, outros profissionais de saúde 9,9%, imprensa 3,6%, rádio 1,9%, televisão 0,9%, família e amigos 10,7%.

Conclusão

A maioria dos pacientes apresentou SpENAT alto e grande interesse em aprender mais sobre OA. O valor mais alto de SpENAT foi associado à consulta com reumatologista para obter informações. Consideramos importante reconhecer tanto a NE quanto as fontes de informação usadas pelos pacientes com OA para desenvolver melhores decisões de tratamento.

Introduction

Osteoarthritis, Arthrosis or Osteoarthrosis (OA) represents one of the most common joint pathology and the main cause of musculoskeletal pain, disability in the aging population around the world (1–2). It is a degenerative disease, with varying degrees of swelling. It has been defined as a heterogeneous group of conditions that lead to symptoms and joint signs that are associated with cartilage integrity defects and changes in the subchondral bone. New definitions describe the whole joint in OA "that compromises any joint tissues and structure; the cartilage degenerates and demonstrates fibrillation lesions, with fissures and ulcerations that cause the total loss of the thickness of the articular surface” (3).

Patient's knowledge about the OA is one of the most important limitations in the treatment and in their recovery process. In addition, it is essential to implement or improve personal care, daily activities and decision-making. The educational process has been evaluated in patients with inflammatory arthritis, especially in patients with rheumatoid arthritis (RA), psoriatic arthritis (PsA) and few European patients with hand OA (4–6). It is an important part as it may lead to an active participation of patients in the therapeutic decision process and provide new strategies that may be more suitable for them.

Our health system does not offer routine structures and time that to facilitate the education of patients, a task that is conducted informally and depends largely on the goodwill of the health professional. For this reason, doctors need a tool that assesses the ENs of patients. The ENAT (Educational Needs Assessment Tool) is a self-administered questionnaire that was originally developed in the United Kingdom and has been translated into several languages. The Spanish version of this questionnaire is the SpENAT (7,8). It comprises 39 questions grouped into 7 domains: pain management (6 questions), movement (5 questions), feelings (4 questions), arthritis process (7 questions), treatments (7 questions), self-help measures (6 questions) and support systems (4 questions). Each of them has 5 categories of rating according to the Likert scale from 0 to 4 and these include: Not at all important (0) A little important (1) Fairly important (2) Very important (3) Extremely important (4). The result is a total score of educational needs that varies from 0 to 156.

It is important to have a better understanding of the educational needs of our patients with OA to provide a personalized treatment plan. This study evaluated the educational needs of patients with knee OA using the SpENAT and the relationship between the educational needs and gender, age, the clinical characteristics of the disease and functional capacity. Additionally, as a specific objective, this study also aimed at establishing which are the main sources of information the patients use and to which SpENAT values it corresponds.

Material and methods

An International multicenter, prospective cross-sectional study with the participation of 9 countries in which patients ≥ 50 years with a diagnosis of KOA (Primary and Secondary) according to the Altman R. classification criteria 1986 were included (9,10). Patients with other rheumatic diseases, (RA, PsA, and crystal induced arthritis), the inability to read and/or write, or understand the questionnaire were excluded from this study.

Demographic data, educational level, and clinics and sources of information consulted were recorded. The total SpENAT score was calculated by summing the domain scores (range 0–156), with higher scores representing higher ENs.

A comparison of the ENs was also performed according to gender, level of education, the time of evolution, use of SYSADOA (Symptomatics Slow-acting Drugs for Osteoarthritis) and functional capacity with the Anova test and the Bonferroni method. Analysis of variables according to the type and distribution was performed and VAS, RAPID3.

All patients that completed the SpENAT questionnaire were also asked to answer the following question: To whom or where do you go to get information about your illness? Being the options a) Rheumatologist, b) Primary care physician, c) Traumatologist, d) Other health care professionals (physical therapist, nurse, nurse practitioner, and other.), e) Family member or friends, and f) Internet, radio and/or television.

Results

We included 1341 patients from 9 countries (Argentina, Bolivia, Colombia, Cuba, Mexico, Paraguay, Dominican Republic, Uruguay and Venezuela). The mean age of the patients with KOA was 63.99 years (SD + 11.85 - C.I 95%: 63.35-64.62) and 78.9% of the participants were women. Ethnic distribution8 of our cohort was mostly 44.8% mestizo followed by white 38.1%, LA / Africans 7% and Amerindian 3%. With 79.7% urban residence and rural 20.3%. The mean time of education was 9.72 years (+/- 4.43 IC95% 9.49-9.63). Occupation: homemaker 42.1%; trade 10%, administrative 2.2%, teachers 3%, professionals 4%, unemployed 6,4%, retired 14%, students 0.2%; work disability 1.8%. The BMI of participants was normal 22%, overweight 45.9%, obese 31% and morbid obesity 2%. Primary OA was found in 78.1%, with a mean evolution time in months of 43.59 months (+/- 39.39 IC95% 41.4-45.7). Comorbidities at 82.70% (hypertension 45%, DM 16%, Osteoporosis 6%, hypothyroidism 4%, dyslipidemias 4%, gastrointestinal 1.2%, other 6%). In our cohort, the mean VAS pain was 42.64 mm (+/-33.7 IC95% 40.8-44.4), patient

VAS was 43.02mm (32.36 IC95% 41.2-44-7), and physician VAS was 36.61mm (30.4 IC95% 34.9-38.9), respectively (Table 1).

The median RAPID3 (11,12) in our cohort was (17) (IQR 12-22) meaning that they are defined as moderate severity (MS) and high severity (HS). Patients with KOA were treated with NSAIDs 58.61%, paracetamol 50.56%, opioids 3.5%, PPI 29.8% and SYSADOAs (Symptomatic Slow Action Drugs for Osteoarthritis) 68.43%, of which 15.1% Glucosamine, SG + CS 43%. Intra-articular treatment: 26.17% (3,1% with Hyaluronic Acid) and their SpENAT median was 121 (IQR 106-136). It is shown in (Figure 1), patients have more demands for the resource for the domains of OA and treatments health professionals. The ENs of patients with KOA according to SpENAT domains are shown in (Table 2).

SpENAT median scores for KOA was116 (IQR 101-134). The mean for the different SpENAT domains obtained from our cohort of patients with OA were as follows: pain was 17.42 (+/- 4.75 IC95 17.1-17.6), mobility 15.44 (+/- 4.61 IC95 15.1-15.6), feelings 12.95 (+/- 4.73 IC9512.6-13.2), medical treatments was 20.64 (+/- 6 IC95 20.3-20.9), personal treatments 17.41 (+/- 5.9 IC95 17-17.7), and support system 11.7 (+/- 26.9 IC95 11.5-11.8).

More educational needs were observed in the domains of movement, feelings and OA (Table 2). Patients with a higher educational level (> 10 years) reported an average of 118.4, higher than the educational level under 10 years that reported 115.5.

The correlations between the demographic variables and the SpENAT domains were summarized in the (Table 3).

The ENs according to age and pain management were statistically significant ($p<0.05$), domain of mobility and feeling was related to the educational level at disease progression in months. Correlation between RAPID3 and SpENAT Rho 0.30 p = 0.001, even though RAPID3 could be affected by patient's educational status, when we compared, there was a low correlation. The support domain is associated with all demographic variables with a Rho 0.635 and p-value <0.05. All SpeNAT domains showed a positive correlation with each other, the most important being movement, feeling, OA, medical treatment and other therapies such as exercise. The ENs related to the length of the disease were the same. That is, patients have a similar interest in learning at the beginning of the disease as well as those having more than 5 years with OA.

The primary sources of information for our cohort were obtained from Rheumatologist 74.9%, Traumatologist 16.8%, internet 14.3%, clinical 10%, other health professionals 9.9%, written press 3.6%, radio 1.9 %, television 0.9%, family and friends 10.7% (Figure 2). Internet consultation was found primarily in the younger age group (18-40 years old), p = 0.035.

VAS was 43.02mm (32.36 IC95% 41.2-44-7), and physician VAS was 36.61mm (30.4 IC95% 34.9-38.9), respectively (Table 1).

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Discussion

This study assessed the source of information patients with KOA use to learn more about their disease. Approximately, 0.2 to 1% of the general population is affected by OA (1,2). OA affects patients' quality of life in different ways; when a patient has been diagnosed with OA, he or she could have a different response, develop anxiety and depression, develop a negative impact, and fear; therefore, it is necessary for patients with OA to obtain proper information about their condition.

Clinical practice guidelines have been established for patients with OA and education is a key component of its treatment6. However, there is a lot of information that comes from different sources and there may be a risk of misinformation and/or information overload if patients do not know where to go or know the basic aspects of their diseases (13). Part of the non-pharmacological treatment of OA relates to the proper access of patient information in a patient-friendly, plain-language, and clear information about the disease (14).

Not many studies have assessed patients' education needs in those affected with OA, and there is not much literature about the use of the SpENAT to assess the source to which patients get their information. Moreover, several studies have shown that standard education has limited results in the long-term treatment of inflammatory diseases, suggesting that there is a need for more patient-centered education, that could cover the specific ENs of the affected individual (15-17). Our study shows that patients with KOA are interested in learning more about their treatment options. The main source for patients to get information was the rheumatologist, which is consistent with the results obtained from another Latin America study (4); however, previously described, there may be an inherent bias as the questionnaire was conducted by only rheumatologists. We also found that, after rheumatologist, the internet was the most often used source of information among patients with KOA in our cohort.

Since technology has become more accessible every day, there is an obvious increase in the use of internet (14). The quality of information available online has been previously discussed (14-16) and although it seems to have increased in quality during the last few years, there are still many inconsistencies regarding the information that is available to users and or not specifically targeted to patients with KOA, especially in certified websites such as foundations or national rheumatology societies, which should be the ones that provide this type of information.

Recent studies have evaluated the effects of a patient-centered ENs assessment and how gender and educational level can influence patient needs (16-19). In accordance with our results, there were significant differences for women and their educational level. Ndosi et al20 found that differences are related to patient knowledge that can affect aspects of their health, such as pain, stiffness and sleep. Our results are consistent with their findings. Our results highlight a need for an integrated approach, as others have previously noted, rheumatologists have to focus on a personalized treatment approach and pay more attention to the ENs of their patients as this may help their independence and reinforce treatment compliance (20-23).

A weakness of this work could be that we did not measure the knowledge prior to the administration of SpENAT in our patients and therefore this knowledge could modify the individual NEs. We highlight as a study strength having had the participation of several centers belonging to 9 LA countries, including then regions with great social, economic and cultural differences.

Conclusions

Most patients presented with high SpENAT and a greater interest in knowing about KOA and its treatment. Patients with KOA were very interested in knowing about their disease. There is a low correlation between SpENAT and RAPID3. A higher SpENAT value was associated with going to a rheumatologist for better information. Finally, we consider knowing the educational requirements and the sources of information of our patients relevant because these constitute a valid set of tools that allow us to reinforce key points on therapeutic handling and helps us avoid misinformation and lack of knowledge, and by doing so it strengthens therapeutic adherence.

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Table 1. Demographic of Latin American cohort with knee osteoarthritis (KOA)

	MEAN	SD+/-	C.I. 95%
Age	63.99	11.85	63.35 - 64.62
Education (years)	9.72	4.43	9.49 - 9.63
Length of OA Month	43.59	39.39	41.48 - 45.70
PAIN VAS (mm)	44.64	33.74	40.83 - 44.45
Patient VAS (mm)	43.02	32.36	41.29 - 44.76
Physician VAS (mm)	36.61	30.40	34.99 - 98.95

Table 2. Educational Needs of Patients with knee OA according to SpENAT domains (N=1341).

SpENAT Domains	MEAN	SD	C.I. 95%
Pain	17.42	4.75	17.1 - 17.6
Mobility	15.44	4.61	15.1 - 15.6
Feeling	12.95	4.73	12.6 - 13.2
Medical Treatment	20.64	6.0	20.3 -20.9
Personal Treatment	17.41	5.97	17 - 17.7
Support System	11.71	26.98	11.5 - 11.8

C.I.: confidence interval; SD: standard deviation.

Table 3. Anova SpENAT domains and demographic variables

SpENAT	Age	Gender	Urban Residency	Education	Evolution
Pain (0-24)	0.000	0.272	0.629	0.32	0.35
Mobility (0-20)	0.29	0.134	0.154	0.000	0.000
Feeling (0-16)	0.16	0.26	0.23	0.000	0.000
OA (0-28)	0.000	0.531	0.397	0.007	0.000
Medical Treatment (0-24)	0.000	0.228	0.08	0.053	0.2
Personal Treatment (0-24)	0.000	0.184	0.138	0.000	0.000
Other support (0-16)	0.000	0.044	0.002	0.000	0.000

Figure 1. Results from SpENAT domains

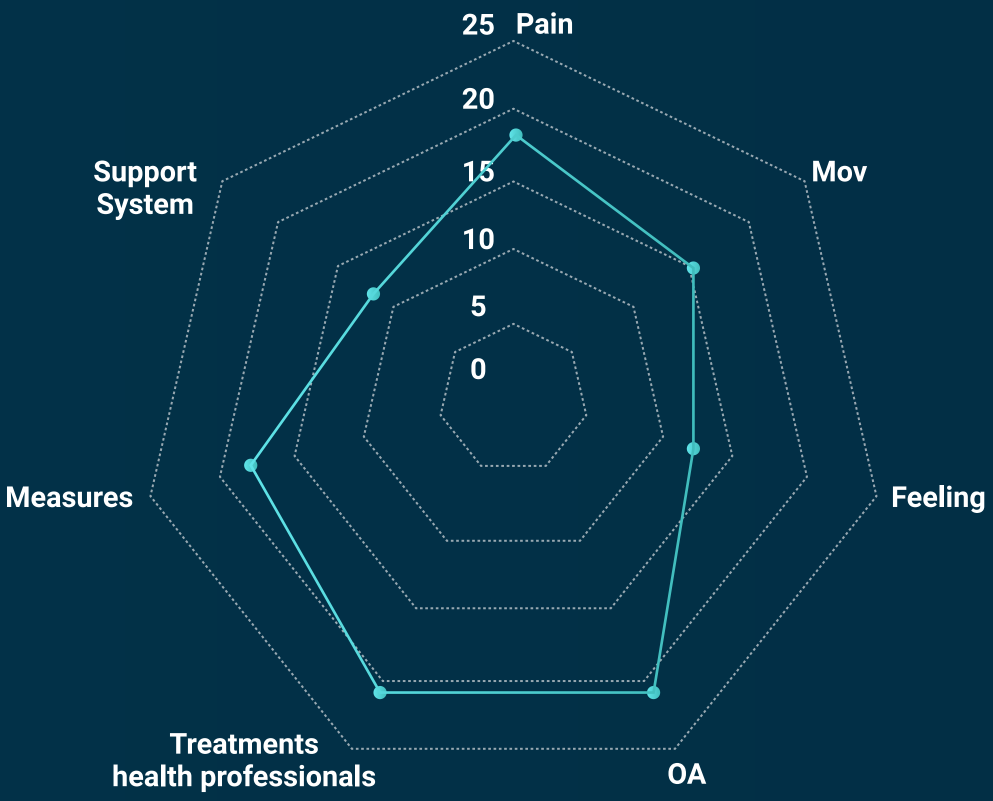
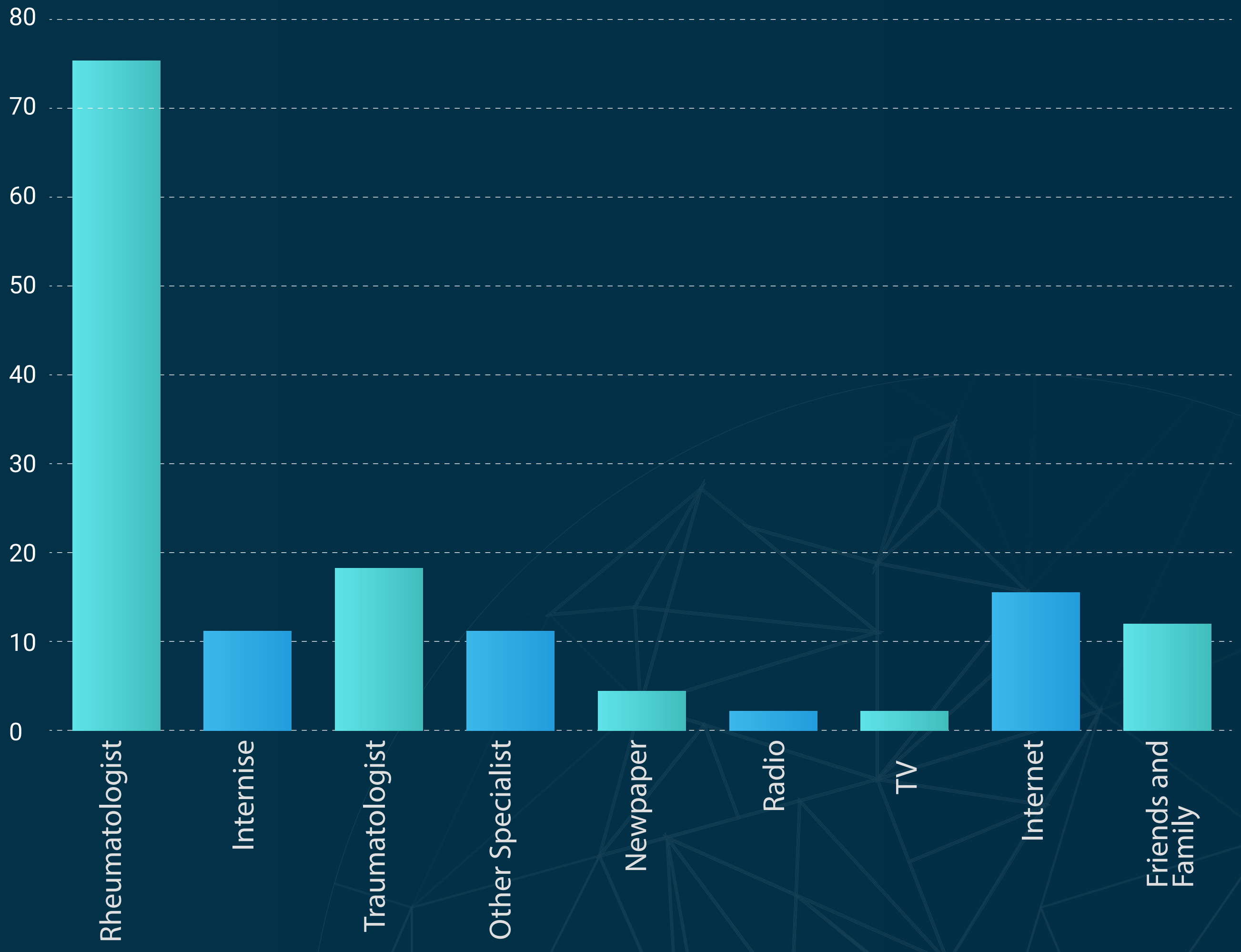


Figure 2. Source(s) of information utilized by patients with knee OA in our Latin American cohort.



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