INTEGRATED MASTER'S DEGREE IN MEDICINE – FINAL THESIS

SABRINA NICOLE PEREIRA MARQUES

Physician-patient communication and treatment adherence

SCIENTIFIC ARTICLE

SCIENTIFIC AREA OF FAMILY MEDICINE AND GENERAL PRACTICE

Thesis completed under the orientation of:

LUIZ MIGUEL DE MENDONÇA SOARES SANTIAGO, MD, PhD

FEBRUARY 2022

Physician-patient communication and treatment adherence

S. Marques[1], L. Santiago[2]

[1]Faculdade de Medicina, Universidade de Coimbra, Portugal; Orcid: https://orcid.org/0000-0003-1231-6654

[2]MD, PhD. Faculdade de Medicina da Universidade de Coimbra; Clínica Universitária de Medicina Geral e Familiar da Faculdade de Medicina da Universidade de Coimbra; Orcid: https://orcid.org/0000-0002-9343-2827; Researcher ID: P-9545-2018; Scopus Author – ID: 7006027550

Author: Sabrina Nicole Pereira Marques

Table of Contents

ACRONYMS AND ABBREVIATIONS

ARS Centro – Administração Regional de Saúde do Centro

ASK-12 – Adherence Starts with Knowledge-12

CAT – Communication Assessment Tool

GDP – Gross domestic product

OECD – Organisation for Economic Co-operation and Development

SNS – Serviço Nacional de Saúde

SPSS – Statistical Package for the Social Sciences

USD – United States dollar

USF – Unidade de Saúde Familiar

WHO – World Health Organisation

RESUMO

Introdução: A comunicação médico-utente tem um impacto importante na saúde dos utentes. Existe maior risco de não adesão terapêutica nos utentes que têm uma fraca comunicação com o seu médico. A não adesão terapêutica leva a um aumento de morbilidade e mortalidade, também como acarreta uma grande carga financeira aos utentes e ao Sistema Nacional de Saúde (SNS).

Objetivo: Verificar a correlação entre a comunicação e adesão terapêutica em utentes portugueses com o uso de duas escalas: Adherence Starts with Knowledge-12 (ASK-12) e Communication Assessment Tool (CAT).

Métodos: Em primeiro lugar foi procedido a adaptação cultural do CAT através da tradução para português, verificação linguística e retro tradução para inglês. Em seguida foi feita a distribuição dos questionários CAT e ASK-12 a utentes que compareceram a uma consulta de medicina geral e familiar por iniciativa própria. Estes questionários foram distribuídos online, através do Google Forms, e presencialmente numa Unidade de Saúde Familiar (USF) na região centro de Portugal através de um investigador externo. Informação epidemiológica (género, idade, residência individual ou partilhada, escolaridade e rendimento mensal) foi também recolhida.

Resultados: Um total de 73 utentes participaram no estudo (35.6% homens), dos quais 51 (69.9%) submeteram os questionários online e 22 (30.1%) presencialmente. Foi identificada uma correlação negativa e significativa entre a pontuação total do CAT e a subescala das Crenças na Saúde do ASK-12 ($\rho = -0.232$; $p = 0.048$), significando que uma boa comunicação médico-utente leva a um melhor conhecimento de saúde do utente.

Conclusões: A adaptação cultural do CAT para Português Europeu foi realizada e demonstrou ser uma adequada medida de comunicação médico-utente, que permitiu perceber que boa comunicação médico-utente leva a um melhor conhecimento e adesão em questões de saúde.

Palavras-Chave: Comunicação médico-utente, Communication Assessment Tool (CAT), Adherence Starts With Knowledge-12 (ASK-12), adesão terapêutica, comunicação.

ABSTRACT

Background: Physician-patient communication has an important impact on patients' health. There is a greater risk of patients not adhering to their treatment plan if there is poor physician-patient communication. Non-adherence leads to an increase in morbidity and mortality, and also adds financial burden to patients and the healthcare system.

Objective: To ascertain the correlation between communication and treatment adherence in Portuguese patients using the Adherence Starts with Knowledge-12 (ASK-12) and the Communication Assessment Tool (CAT) questionnaires.

Methods: Firstly, the cross-cultural adaptation by means of translation, linguistic verification, and reverse translation of the CAT to European Portuguese was proceeded. Followed by the distribution of the CAT and ASK-12 questionnaires to patients who attended a general practice/family medicine appointment of their own initiative. These were distributed online, via Google Forms, as well as in-person by an external investigator at a family health centre in the central region of Portugal. Epidemiological information (gender, age, living status, education level and monthly income) were also collected.

Results: A total of 73 patients participated (35.6% male), 51 (69.9%) submitted the questionnaire online and 22 (30.1%) in-person. A statistically significant and negative correlation was found between the total CAT score and the Health Beliefs sub-scale from ASK-12 (ρ=-0.232; p=0.048), meaning that good physician-patient communication led to patients having greater knowledge and adherence regarding their health.

Conclusion: The cross-cultural adaptation of the CAT to European Portuguese was carried out and proved to be a reasonable measure of physician-patient communication, allowing to understand that good physician-patient communication leads to better patient health knowledge and adherence.

Keywords: Physician-patient communication, Communication Assessment Tool (CAT), Adherence Starts With Knowledge-12 (ASK-12), treatment adherence, communication.

1. INTRODUCTION

Good physician-patient communication is deemed essential for good consultation results and health outcomes. In fact, there is a general consensus in the medical healthcare field that good communication leads to higher quality patient care (1–6). According to Stewart (7) by adopting a patient-centred communication approach, patients were found to be more active in their own treatment management resulting in a positive patient outcome. Patient-centred communication includes key points such as: exchange of information, managing uncertainty, enabling patient self-management, responding to emotions, fostering the physician-patient relationship, and participating in decision making (8).

Communication can influence a patient's health, positively or negatively, in a direct and indirect form (8). In most situations physician-patient communication has an indirect impact on the patient's outcome, such as: influencing their satisfaction with their care, trust in the physician and healthcare system, as well as their motivation to adhere to the prescribed treatment plan (8). In an indirect form, communication can influence the patient's decision to adhere or not to the treatment plan and prescribed medication (9–12). According to Dimatteo and Zolnierek (13), there is a 19% higher risk of patients not adhering to their treatment plan if there is poor communication with their physician, comparatively to those with good communication. In addition, Stewart (7) also defends that the discussion of the patient's treatment and management plan were found to significantly influence their health outcomes.

Non-adherence can be divided into primary and secondary non-adherence. Primary non-adherence occurs when patients fail to fill prescriptions when new medications are started (14). Whereas secondary non-adherence occurs when patients fail to fill re-occurring prescriptions. In a 2010 multivariate analyses (14) 195,930 electronic prescriptions were analysed to find that only 78% (151,837) were filled. In addition, it was verified that primary non-adherence was common for chronic conditions such as hypertension (28.4%), hiperlipidemia (28.2%), and diabetes (31.4%) (14). According to the World Health Organisation (WHO) (15), adherence rates in developed countries averages 50%. In a 2016 study, it was found that in newly treated hypertensive patients in primary health care units in the Lisbon and Tagus Valley Region of Portugal had an overall primary adherence rate of 58.5% (16). It was demonstrated that almost one out of five (19.5%) patients had either never initiated their treatment, initiated with a six month or more delay, or had discontinued the medication after only acquiring it once (16). In accordance

with the findings from the WHO, a 2019 study about the adherence rate in polymedicated elderly patients in Portugal found that 47.7% were non-adherent (17).

The non-adherence to prescribed medications not only leads to an increase in morbidity and mortality but also adds an enormous financial burden (18–20). In a 2017 article (21) it was observed that the annual economic cost of non-adherence per person ranged from $949 to $44,190 United States dollars (USD). According to the Organisation for Economic Co-operation and Development (OECD), Portugal spent 10.1% of its gross domestic product (GDP) in the year of 2020 in health spending, becoming the 14th country that spent the most in health, preceded by Denmark, Belgium and Canada (22). In January of 2020, the Portuguese national healthcare system – Serviço Nacional de Saúde (SNS) – spent 120 million euros in medication fees, 7.1 million euros more than in the year before (23). In the year 2010, 0.71% of Portugal's GDP was solely dedicated to the cost of medication prescribed through the SNS (24).

The evaluation of the possible correlation between physician-patient communication and treatment adherence is of extreme importance since it has been proven to influence patient outcomes as well as financial costs. There are studies that evaluate the importance of communication and treatment adherence in Portuguese patients, however these have only been studied individually, leaving a void about their possible correlation. This study aimed to investigate the correlation between communication and treatment adherence in Portuguese patients using two questionnaires: Adherence Starts with Knowledge-12 (ASK-12) (25) and the Communication Assessment Tool (CAT) (26).

2. METHODS

2.1 Type of study and target population

An observational, cross-sectional study was conducted with the use of two questionnaires – ASK-12 (25) and CAT (26).

The target population was comprised of adults, 18 years of age or older, who had independently scheduled their own appointment with their family doctor at the Unidade de Saúde Familiar (USF) Topázio – a family health centre located in the outskirts of the city of Coimbra, Portugal. The in-person questionnaires were distributed after their medical appointment, in a private location, to guarantee anonymity and avoid any persuasion by a third-party. The online questionnaires were distributed via Google Forms, after the medical appointment, to patients that had scheduled their own general appointment and not a specific consultation, such as diabetes or arterial hypertension. This online invitation was sent to all those whose email address was known by the health care unit, explaining the purpose and the goals of the study. The minimum accepted number of participants determined was 50 online participants and 20 in-person participants (27). This study was performed under the authorisation of the Ethics Committee of the "Administração Regional de Saúde do Centro, (ARS)" (Attachment VI).

A database was created with the data collected in which descriptive and inferential statistics were applied using the 27th edition of SPSS.

2.2 Data collection

ASK-12 and CAT were distributed in this study. In addition to the distribution of both questionnaires, the validation of the CAT for the Portuguese population was implemented – further explained in point 2.3: Study protocol – Translation of CAT. Whereas the validation of ASK-12 (25) for the Portuguese population had already been implemented and was used, as authorised by its author (25).

This study occurred in three different time periods during the Fall of 2021. From the 13th of August to the 11th of October of 2021, both questionnaires were distributed electronically, via Google Forms (Attachment IV). On October 15th and November 17th of 2021 both questionnaires were distributed in-person (Attachment V). In both cases, patients only participated after reading or hearing a description of the study and providing written consent (Attachment III).

To have a complete sociodemographic understanding of the target population, the following information was collected anonymously: gender (male or female), age group (18 to 34, 35 to 49, 50 to 64, 65 or older), living status (alone or accompanied), education level (cannot read or write, primary, basic, secondary, or higher) and monthly income (more or less than minimum wage).

2.3 Study protocol – Translation of CAT

After extensive research it was observed that the Communication Assessment Tool (CAT) questionnaire had yet to be validated in European Portuguese. Due to this, the translation and cross-cultural adaptation of the CAT to European Portuguese was proceeded, as authorised by its original author. This process involved its translation, linguistic verification, and reverse-translation.

The CAT was translated from its original form (Attachment II) to European Portuguese by two healthcare professionals, unrelated to the study, whose native languages are English and European Portuguese.

Regarding the linguistic verification, the translations were reviewed by a panel of specialists whose native languages are both English and European Portuguese. This panel proceeded to choose the best translation for each point, taking into consideration the choice of words most appropriate for our target population.

After the final consensus of linguistic verification was reached, its reverse-translation was proceeded. This involved distributing the translated version to two different translators, whom had no relation to the study, with a firm grasp of both languages. These translators were asked to translate the questionnaire from European Portuguese to English. It was verified that there were no significant differences between this reverse-translation and its original form, concluding the translation and cultural adaptation of the CAT questionnaire to European Portuguese.

3. RESULTS

3.1 Epidemiologic characterization of the sample population

A total of 73 patients participated in this study. Of those, 51 (69.9%) submitted the questionnaires online and 22 (30.1%) submitted them in-person. Of the 73 patients, 26 (35.6%) were male and 47 (64.4%) were female. Of the 26 male patients, 17 (65.4%) submitted the questionnaires online and 9 (34.6%) submitted them in-person. Of the 47 female patients, 34 (72.3%) submitted the questionnaires online and 13 (27.7%) submitted them in-person (Table 1).

Based off the age group from our entire sample population 7 (9.6%) were aged between 18 and 34 years, 30 (41.1%) were between the ages of 35 and 49, 19 (26%) were between the ages of 50 and 64, and 17 (23.3%) were 65 years of age or older. Of those 18 to 34 years of age, 3 (42.9%) submitted the questionnaires online and 4 (57.1%) submitted them in-person. Of those 34 to 49 years of age, 24 (80%) submitted the questionnaires online and 6 (20%) submitted them in-person. Of those 50 to 64 years of age, 14 (73.7%) submitted the questionnaires online and 5 (26.3%) submitted them in-person. Of those 65 years of age or older, 10 (58.8%) submitted the questionnaires online and 7 (41.2%) submitted them in-person (Table 1).

Regarding the patients' education level, they were differentiated into five groups based on until when they had terminated their schooling: cannot read or write, primary, basic, secondary, or higher education. Of the entire sample population, 0 (0%) could not read or write, 6 (8.2%) had a primary level education, 13 (17.8%) had a basic level education, 15 (20.6%) had a secondary level education, and 39 (53.4%) had a higher level education. Of the 6 patients with a primary level education, 1 (16.7%) submitted the questionnaires online and 5 (83.3%) submitted them in-person. Of the 13 patients with a basic level education, 8 (61.5%) submitted the questionnaires online and 5 (38.5%) submitted them in-person. Of the 15 patients with a secondary level education, 9 (60%) submitted the questionnaires online and 6 (40%) submitted them in-person. Of the 39 patients with a higher level education, 33 (69.9%) submitted the questionnaires online and 6 (15.4%) submitted them in-person (Table 1).

These and other epidemiological values, such as the patients' living status and monthly income, are presented in Table 1.

Table 1: Epidemiological characterisation of the sample population according to the questionnaire submission

	Type of questionnaire submitted		Total	p-value
	Online	In-Person		
Gender				0.359
Male	17 (65.4%)	9 (34.6%)	26 (100%)	
Female	34 (72.3%)	13 (27.7%)	47 (100%)	
Total	51 (69.9%)	22 (30.1%)	73 (100%)	
Age group				0.732
18 to 34	3 (42.9%)	4 (57.1%)	7 (100%)	
35 to 49	24 (80.0%)	6 (20.0%)	30 (100%)	
50 to 64	14 (73.7%)	5 (26.3%)	19 (100%)	
65 or older	10 (58.8%)	7 (41.2%)	17 (100%)	
Total	51 (69.9%)	22 (30.1%)	73 (100%)	
Living status				0.582
Alone	10 (71.4%)	4 (28.6%)	14 (100%)	
Accompanied	41 (69.5%)	18 (30.5%)	56 (100%)	
Total	51 (69.9%)	22 (30.1%)	73 (100%)	
Education level				0.001
Cannot read or write	0 (0%)	0 (0%)	0 (0%)	
Primary	1 (16.7%)	5 (83.3%)	6 (100%)	
Basic	8 (61.5%)	5 (38.5%)	13 (100%)	
Secondary	9 (60.0%)	6 (40.0%)	15 (100%)	
Higher	33 (84.6%)	6 (15.4%)	39 (100%)	
Total	51 (69.9%)	22 (30.1%)	73 (100%)	
Monthly income				0.197
Less than minimum wage	6 (54.5%)	5 (45.5%)	11 (100%)	
More than minimum wage	45 (72.6%)	17 (27.4%)	62 (100%)	
Total	51 (69.9%)	22 (30.1%)	73 (100%)	

Table 2: CAT results by type of questionnaire submitted

	Type of questionnaire submitted	1 – Poor	2 – Fair	3 – Good	4 – Very good	5 – Excellent	Average Score	Statistical significance
1. Greeted me in a way that made me feel comfortable	Online	0	4	13	14	20	3.98	0.001
	In-person	0	0	0	5	17	4.77	
2. Treated me with respect	Online	0	2	13	10	26	4.18	0.001
	In-person	0	0	0	2	20	4.91	
3. Showed interest in my ideas about my health	Online	0	3	14	13	21	4.02	0.001
	In-person	0	0	0	4	18	4.82	
4. Understood my main health concerns	Online	0	3	14	14	20	4	0.000
	In-person	0	0	1	2	19	4.82	
5. Paid attention to me	Online	0	3	12	14	22	4.08	0.000
	In-person	0	0	0	2	20	4.91	
6. Let me talk without interruptions	Online	0	2	14	16	19	4.02	0.000
	In-person	0	0	0	2	20	4.91	
7. Gave me as much information as I wanted	Online	1	2	14	13	21	4	0.001
	In-person	0	0	0	4	18	4.82	
8. Talked in terms I could understand	Online	0	2	12	13	24	4.16	0.004
	In-person	0	0	1	3	18	4.77	
9. Checked to be sure I understood everything	Online	0	3	12	16	20	4.04	0.004
	In-person	0	0	1	5	16	4.68	
10. Encouraged me to ask questions	Online	2	6	13	10	20	3.78	0.011
	In-person	0	0	2	6	14	4.55	
11. Involved me in decisions as much as I wanted	Online	0	8	18	6	19	3.71	0.002
	In-person	0	0	2	5	15	4.59	
12. Discussed next steps, including any follow-up plans	Online	0	3	16	11	21	3.98	0.000
	In-person	0	0	0	4	18	4.82	
13. Showed care and concern	Online	0	2	12	17	20	4.08	0.000
	In-person	0	0	0	4	18	4.82	
14. Spent the right amount of time with me	Online	1	2	12	17	19	4	0.001
	In-person	0	0	1	4	17	4.73	
15. Treated me with respect	Online	1	2	15	15	18	3.92	0.001
	In-person	0	0	2	3	17	4.68	

3.2 Descriptive statistics of the CAT questionnaire

The CAT questionnaire (Attachment II) is comprised of 15 items in which each was attributed a score from 1 to 5 (1 – Poor; 2 – Fair; 3 – Good; 4 – Very good; 5 – Excellent). The average total score of the CAT questionnaire was 59.9 for those submitted online and 71.6 for those submitted in-person ($p<0.001$) (Table 4). The average score per question was calculated based on the type of questionnaire submitted – online or in-person – as well as the statistical significance, as seen in Table 2.

3.3 Descriptive statistics of the ASK-12 questionnaire

The ASK-12 questionnaire is comprised of 12 items in which each was attributed a score from 1 to 5 (1 – Strongly Agree; 2 – Agree; 3 – Neutral; 4 – Disagree; 5 – Strongly Disagree). The average total score of the ASK-12 questionnaire was 34.3 for those who submitted online and 36.8 for those who submitted in-person ($p=0.172$) (Table 4). The frequency distribution of the score for each question from the ASK-12 questionnaire was also calculated (Attachment I).

From this questionnaire 3 sub-scales resulted as a product: Treatment Adherence (A), comprised of questions 1 through 3; Health Beliefs (B), comprised of questions 4 through 7; and Forgetfulness/Inconvenience (C), comprised of questions 8 through 12. The sum of points from each item can range from 12 to 60, being that greater scores indicate more barriers or difficulty to adhere to the treatment plan (25). The average, standard deviation and p-value for each sub-scale were calculated (Table 3) based off which type of questionnaire was submitted.

Table 3: Group statistics by ASK-12 sub-scales

	Type of questionnaire submitted	N	Average	Standard deviation	p-value
Treatment Adherence (A)	Online	51	16.9	4.5	0.203
	In-person	22	18.3	3.7	
Health Beliefs (B)	Online	51	8.2	3.5	0.893
	In-person	22	8.4	2.6	
Forgetfulness /Inconvenience (C)	Online	51	9.1	3.2	0.211
	In-person	22	10.1	2.5	

3.4 Group statistics

By applying the Kolmogorov-Smirnov test it was verified that not all the variables of the sample followed a normal numeric variable distribution ($p>0.001$) and therefore non-parametric statistics were used to analyse the group statistics, namely Mann-Whitney U, Kruskal-Wallis and Spearman correlation.

Regarding the type of questionnaires submitted, the average total score of the CAT questionnaire was 59.9 for those who submitted online and 71.6 for those who submitted in-person ($p<0.001$) being that the range of the total score was from 15 to 75. The average total score of the ASK-12 questionnaire was 34.3 for those who submitted online and 36.8 for those who submitted in-person ($p=0.172$) being that the range of the total score was from 12 to 60. More detailed group statistics can be found in Table 4.

Table 4: Group statistics - type of questionnaire submitted

	Type of questionnaire submitted	N	Average	Standard deviation	p-value
CAT	Online	51	59.9	13.7	<0.001
	In-person	22	71.6	4.9	
ASK-12	Online	51	34.3	8.1	0.172
	In-person	22	36.8	6.6	

The socioeconomic index of the sample population was calculated by attributing a score based off of: the living status (alone – 1 point; accompanied – 2 points); education level (cannot read or write – 1; primary – 1; basic – 2; secondary – 2; higher – 2); and monthly income (less than minimum wage – 1; more than minimum wage – 2), being that the total score ranged from 3 to 6. The average socioeconomic index by the type of questionnaire submitted was analysed demonstrating that those who submitted the questionnaires online had an average score of 5.67 and in-person 5.36 ($p=0.134$), as shown in Table 5.

Table 5: Group statistics – socioeconomic index

	Type of questionnaire submitted	N	Mean	Standard deviation	p-value
Socioeconomic index	Online	51	5.67	0.55	0.134
	In-person	22	5.36	0.85	

Spearman's correlation was calculated between each questionnaire, including the sub-scales of the ASK-12 questionnaire as well as the socioeconomic index of the sample population. The results are shown in Table 6.

Table 6: Spearman correlation of Total CAT with ASK-12 and Socioeconomic index and of ASK-12 with Socioeconomic index

	Total CAT ρ (p)	Total ASK ρ (p)
N	73	73
Total ASK	ρ=-0.105, p=0.376	N/A
Treatment Adherence (A)	ρ=0.094¸ p=0.428	N/A
Health Beliefs (B)	ρ=-0.232, p= 0.048	N/A
Forgetfulness /Inconvenience (C)	ρ=-0.025, p=0.835	N/A
Socioeconomic index	ρ=-0.068, p=0.569	ρ=0.035, p=0.767

4. DISCUSSION

4.1 Epidemiological characterisation of the sample population

The sample population was retrieved from USF Topázio and, although it was limited to one family health centre, it appeared to be congruent with the average population distribution in Portugal (28) seeing how there were more female patients (64%) attending the health centre than male patients (36%) (Table 1). The current pandemic also forced limited investigator and patient contact time which restricted exploratory work on this theme.

Patients were divided based on the type of questionnaire submitted, online or in-person, and five different epidemiological characteristics were analysed: gender, age group, living status, education level and monthly income were gathered. The statistical significance between each epidemiological characteristic and the type of questionnaire submitted was calculated using either Fisher's exact test or the Mann–Whitney U test. No significant difference was identified between the type of questionnaire submitted and gender (p=0.359), age group (p=0.732), living status (0.582) or monthly income (p=0.197).

There was, however, a significant difference between the type of questionnaire submitted and education level (p=0.001) as patients who submitted the questionnaires online had a higher education level. Meanwhile those who submitted the questionnaire in-person were relatively

evenly distributed amongst the different education levels. Therefore, it is probable that family and personal educational backgrounds have an important role on communication.

4.2 CAT questionnaire

After completing the translation and cross-cultural adaptation of the CAT questionnaire to European Portuguese, it was distributed online and in-person. As previously mentioned, the CAT (Attachment II) is comprised of 15 items in which each was attributed a score from 1 to 5 (1 – Poor; 2 – Fair; 3 – Good; 4 – Very good; 5 – Excellent). According to Table 2, the average score for each item is different depending on if it was submitted online or in-person, even though the only significant epidemiological characteristic was the patient's education level. Overall, the patients that submitted the questionnaire in-person had a higher average score than those who submitted online.

As mentioned in section 2.1 – "Type of study and target population", the in-person questionnaires were distributed after the patient's appointment, in a private location, to guarantee anonymity and avoid any persuasion by a third-party. Despite this, there is a possible response bias for those that submitted the questionnaires in-person, via an indirect pressure to give a higher CAT score since the patients were still in the same physical space as their doctor. Whereas those who submitted the questionnaire online were in the privacy of their own space and did not have any pressure, indirect or direct, to give a higher CAT score, given the impossibility of knowing who answered it. Thus, the environment in which the questionnaires are applied must be carefully studied.

4.3 ASK-12 questionnaire

As previously mentioned, the ASK-12 questionnaire is comprised of 12 items in which each was attributed a score from 1 to 5 (1 – Strongly Agree; 2 – Agree; 3 – Neutral; 4 – Disagree; 5 – Strongly Disagree). The sum of points from each item can range from 12 to 60, greater scores indicating more barriers or difficulty to adhere to the treatment plan (25). From this questionnaire 3 sub-scales resulted as a product: Treatment Adherence (A), comprised of questions 1 through 3; Health Beliefs (B), comprised of questions 4 through 7; and Forgetfulness/Inconvenience (C), comprised of questions 8 through 12. In Table 3, the average of each sub-scale was calculated of those who submitted the questionnaire online and in-person. The average Treatment Adherence (A) score for those who submitted online was 16.9, while those who submitted in-person was 18.3 ($p=0.203$) (Table 3). The average Health Beliefs (B) score for those who submitted online was 8.2, while those who submitted in-person was 8.4 ($p=0.893$) (Table 3). The

average Forgetfulness/Inconvenience (C) score for those who submitted online was 9.1, while those who submitted in-person was 10.1 (p=0.211) (Table 3). Overall, those who submitted the questionnaire in-person had higher averages indicating that they had more barriers or difficulty to adhere to their treatment plan as opposed to those who submitted online, probably reflecting different socio-economic backgrounds.

4.4 Group statistics

The average total score of the CAT questionnaire was 59.9 for those who submitted online and 71.6 for those who submitted in-person (p<0.001), with the range of the total score between 15 and 75. This indicates that the average CAT score was significantly higher for those who submitted the questionnaire in-person compared to those who submitted online.

The total CAT score appeared to have no significant correlation, negative or positive, with the Total ASK-12 score, Treatment Adherence (A), Forgetfulness/Inconvenience (C) or the socioeconomic index (Table 6). There was also no statistically significant correlation between the total ASK-12 score and patients socioeconomic index (Table 6). There was, however, a statistically significant negative correlation between the total CAT score and the Health Beliefs (B) (p=0.048) (Table 6). This negative correlation indicates that the higher the CAT score, the lower the score on the Health Beliefs section of the ASK-12 questionnaire. Therefore, a good physician-patient communication leads to patients having a better understanding of their health.

4.5 Study limitations and prospective studies

The greatest limitation to this study was the difference between the online and in-person responses. As previously mentioned, those who submitted the questionnaires in-person had a greater average CAT score than those who submitted online. Despite an attempt to remove any direct pressure, it would appear that the responses were still influenced by the indirect pressure of being in the same physical space as their physician. For future research, repeating the study with a larger target population including multiple health centres is advisable. By expanding the study to multiple health centres, it will be possible to obtain a more diverse epidemiologic response.

It would be remiss to not mention that the current pandemic caused by SARS-CoV-2 contributes to greater stress and possibly different health understandings. With this in mind, it would also be of interest to repeat this study in the future once the pandemic is over.

5. CONCLUSION

In conclusion, the cross-cultural adaptation of the CAT to European Portuguese was carried out and proved to be a reasonable measure of physician-patient communication, allowing to understand that good physician-patient communication leads to better patient health understanding.

ACKNOWLEDGEMENTS

This thesis represents the culmination of many years of hard work, dedication, and perseverance. It also represents the end of a journey, one which would have been impossible to reach if not for the help of many people who are near and dear to my heart that I would like to thank.

Starting with Professor Luiz Miguel Santiago. I would like to thank you for your guidance and patience throughout this entire process. Since day one you have always made yourself available for any question or concern. Thank you for your advice and support. I am honoured to have been able to work with you.

To my parents - Ana Paula and Rui - who have always been there for me, I cannot thank you enough. Every moment, good and bad, you have always been there for me. Words cannot describe the pride and joy I feel to be your daughter. The person I am today, and everything that I have been able to achieve, is thanks to them. Thank you for everything.

To my fiancé - Ivo - the love of my life, thank you. Thank you for being my rock, my comfort, my light, and my best friend. Thank you for being there during the stressful moments and sleepless nights. And most of all, thank you for showing me how beautiful life can be.

To my brother - Kevin - thank you for being my big brother and my friend. Thank you for always being there for me and protecting me. Thank you for making me laugh, especially when I needed it, and for teaching me how to enjoy life.

To my sister-in-law and Godchildren - Rebecca, David, and Lucas - thank you for always being able to put a smile on my face. Thank you for lighting up my day and for bringing such joy to my life.

To my friends, thank you for a lifetime of unforgettable moments. Thank you for coming along with me on this journey and making every moment extraordinary.

To the health centre of Topázio, thank you for the welcoming reception and for making this thesis possible.

Thank you all.

REFERENCES

1. Makoul G, Schofield T. Communication teaching and assessment in medical education: an international consensus statement. Patient Educ Couns [Internet]. 1999 Jun 1 [cited 2022 Jan 4];37(2):191–5. Available from: https://doi.org/10.1016/S0738-3991(99)00023-3.

2. Stewart MA, Brown J, Boon H, Galajda J, Meredith L, Sangster M. Evidence on Patient-Doctor Communication. Cancer Prev Control [Internet]. 1999 [cited 2022 Jan 4];3:25–30. Available from: https://pubmed.ncbi.nlm.nih.gov/10474749/.

3. Lang E V. A Better Patient Experience Through Better Communication. J Radiol Nurs [Internet]. 2012 Dec 1 [cited 2022 Jan 5];31(4):114–9. Available from: https://linkinghub.elsevier.com/retrieve/pii/S1546084312001423.

4. Pope BB, Rodzen L, Spross G. Raising the SBAR. Nursing (Lond) [Internet]. 2008 Mar [cited 2022 Jan 5];38(3):41–3. Available from: https://journals.lww.com/nursing/Citation/2008/03000/Raising_the_SBAR__How_better_communication.38.aspx.

5. McCabe R, Healey PGT. Miscommunication in Doctor-Patient Communication. Top Cogn Sci [Internet]. 2018 Apr [cited 2022 Jan 5];10(2):409–24. Available from: https://onlinelibrary.wiley.com/doi/10.1111/tops.12337.

6. Kaplan SH, Greenfield S, Ware JE. Assessing the effects of physician-patient interactions on the outcomes of chronic disease. Med Care [Internet]. 1989 Mar [cited 2022 Jan 5];27(3 Suppl):S110-27. Available from: http://www.ncbi.nlm.nih.gov/pubmed/2646486.

7. Stewart MA. Effective Physician-Patient Communication And Health Outcomes: A Review. CMAJ [Internet]. 1995 [cited 2022 Jan 5];9(152):1423–33. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1337906/pdf/cmaj00069-0061.pdf.

8. Street RL, Makoul G, Arora NK, Epstein RM. How does communication heal? Pathways linking clinician-patient communication to health outcomes. Patient Educ Couns [Internet]. 2009 [cited 2022 Jan 5];3(74):295–301. Available from: https://pubmed.ncbi.nlm.nih.gov/19150199/.

9. Stavropoulou C. Non-adherence to medication and doctor–patient relationship: Evidence from a European survey. Patient Educ Couns [Internet]. 2011 Apr 1 [cited 2022 Jan 4];83(1):7–13. Available from: https://pubmed.ncbi.nlm.nih.gov/20541884/.

10. Amin ZA, Kabir MI, Karami JH, Nahar N. Doctor-patient communication to improve adherence to anti-hypertensive treatment. Bangladesh Med Res Counc Bull [Internet]. 2018 [cited 2022 Jan 4];44(3):145–51. Available from: https://doi.org/10.3329/bmrcb.v44i3.39938.

11. Thompson L, McCabe R. The effect of clinician-patient alliance and communication on treatment adherence in mental health care: A systematic review. BMC Psychiatry [Internet]. 2012 [cited 2022 Jan 4];12(87). Available from: https://doi.org/10.1186/1471-244X-12-87.

12. McCabe R, Healey PGT, Priebe S, Lavelle M, Dodwell D, Laugharne R, et al. Shared understanding in psychiatrist-patient communication: Association with treatment adherence in schizophrenia. Patient Educ Couns [Internet]. 2013 [cited 2022 Jan 4];93(1):73–9. Available from: http://dx.doi.org/10.1016/j.pec.2013.05.015.

13. Dimatteo MR, Zolnierek KBH. Physician Communication and Patient Adherence to Treatment: A Meta-analysis. Med Care [Internet]. 2009 [cited 2022 Jan 4];47(8):826–34. Available from: https://doi.org/10.1097/mlr.0b013e31819a5acc.

14. Fischer MA, Stedman MR, Lii J, Vogeli C, Shrank WH, Brookhart MA, et al. Primary Medication Non-Adherence: Analysis of 195,930 Electronic Prescriptions. J Gen Intern Med [Internet]. 2010 [cited 2022 Jan 5];25(4):284–90. Available from: https://link.springer.com/article/10.1007%2Fs11606-010-1253-9.

15. World Health Organization. Adherence to Long-Term Therapies: Evidence for Action [Internet]. World Health Organization; 2003 [cited 2022 Jan 5]. Available from: https://apps.who.int/iris/bitstream/handle/10665/42682/9241545992.pdf.

16. Coelho AFF, Caetano PA. Adherence To Antihypertensive Therapy : Analysis Of Initiation , Implementation , Discontinuation And Possible Risk Factors In Portuguese Primary Care Units [Internet]. NOVA Medical School; 2016 [cited 2022 Jan 5]. Available from: http://hdl.handle.net/10362/20673.

17. Gomes D, Placido AI, Mó R, Simões JL, Amaral O, Fernandes I, et al. Daily medication management and adherence in the polymedicated elderly: A cross-sectional study in Portugal. Int J Environ Res Public Health [Internet]. 2020 [cited 2022 Jan 5];17(1). Available from: https://www.mdpi.com/1660-4601/17/1/200.

18. Chisholm-Burns MA, Spivey CA. The “cost” of medication nonadherence: Consequences we cannot afford to accept. J Am Pharm Assoc [Internet]. 2012 Nov 1 [cited 2022 Jan 5];52(6):823–6. Available from: https://www.japha.org/action/showPdf?pii=S1544-3191%2815%2930571-9.

19. Lenti MV, Selinger CP. Medication non-adherence in adult patients affected by inflammatory bowel disease: a critical review and update of the determining factors, consequences and possible interventions. Expert Rev Gastroenterol Hepatol [Internet]. 2017 [cited 2022 Jan 5];11(3):215–26. Available from: https://doi.org/10.1080/17474124.2017.1284587.

20. Hong J, Reed C, Novick D, Haro JM, Aguado J. Clinical and economic consequences of medication non-adherence in the treatment of patients with a manic/mixed episode of bipolar disorder: Results from the European Mania in Bipolar Longitudinal Evaluation of Medication (EMBLEM) Study. Psychiatry Res. 2011 Nov 30 [cited 2022 Jan 5];190(1):110–4. Available from: https://doi.org/10.1016/j.psychres.2011.04.016.

21. Cutler RL, Fernandez-Llimos F, Frommer M, Benrimoj C, Garcia-Cardenas V. Economic impact of medication non-adherence by disease groups: a systematic review. BMJ Open [Internet]. 2018 [cited 2022 Jan 5];8(1):16982. Available from: https://doi.org/10.1136/bmjopen-2017-016982.

22. Organisation for Economic Co-operation and Development (OECD). Health spending (indicator) [Internet]. 2020 [cited 2022 Jan 4]. Available from: https://data.oecd.org/healthres/health-spending.htm.

23. Infarmed. Monitorização Do Consumo De Medicamentos [Internet]. Portugal; 2020 [cited 2022 Jan 4]. Available from: https://www.infarmed.pt/documents/15786/3653922/janeiro/2c73b180-9f6c-58c0-7122-aa903b3edd8a?version=1.0.

24. Direcção-Geral da Saúde (DGS). Elementos Estatísticos Saúde 2011/2012 [Internet]. Lisboa, Portugal; 2011 [cited 2022 Jan 4]. Available from: https://www.dgs.pt/portal-da-estatistica-da-saude/diretorio-de-informacao/diretorio-de-informacao/por-nivel-de-informacao-414960-pdf.aspx?v=%3D%3DDwAAAB%2BLCAAAAAAABAArySzItzVUy81MsTU1MDAFAHzFEfkPAAAA.

25. Afonso RJC, Santiago LMDMS. Adaptação Cultural da Escala ASK-12 para Doentes com Hipertensão Arterial em Portugal [Internet]. Faculdade de Medicina da Universidade de Coimbra; 2019 [cited 2021 Oct 11]. Available from: https://estudogeral.sib.uc.pt/bitstream/10316/89740/1/Tese Final Ricardo afonso.pdf.

26. Mercer LM, Tanabe P, Pang PS, Gisondi MA, Courtney DM, Engel KG, et al. Patient perspectives on communication with the medical team: Pilot study using the communication assessment tool-team (CAT-T). Patient Educ Couns. 2008 [cited 2021 May 5];73(2):220–3. Available from: https://doi.org/10.1016/j.pec.2008.07.003.

27. Barbara G. Tabachnick LSF. Using Multivariate Statistics. 6th ed. California State University - Northridge: Pearson Education Inc.; 2013 [cited 2022 Jan 4].

28. PORDATA. População residente segundo os Censos: total e por sexo [Internet]. 2021 [cited 2022 Jan 12]. Available from: https://www.pordata.pt/Portugal/População+residente+segundo+os+Censos+total+e+por+sexo-1.

ATTACHMENTS

Attachment I. Frequency distribution of ASK-12 questionnaire score

	1 – Strongly Agree (f)	2 – Agree (f)	3 – Neutral (f)	4 – Disagree (f)	5 – Strongly Disagree (f)
1. I just forget to take my medicines some of the time	18 (24.7%)	23 (31.5%)	9 (12.3%)	14 (19.2%)	9 (12.3%)
2. I run out of my medicine because I don't get refills on time	6 (8.2%)	8 (11%)	8 (11%)	23 (31.5%)	28 (38.4%)
3. Taking medicines more than once a day is inconvenient	10 (13.7%)	23 (31.5%)	12 (16.4%)	13 (17.8%)	15 (20.5%)
4. I feel confident that each of my medicines will help me	28 (38.4%)	32 (43.8%)	7 (9.6%)	3 (4.1%)	3 (4.1%)
5. I know if I am reaching my health goals	16 (21.9%)	38 (52.1%)	7 (9.6%)	9 (12.3%)	3 (4.1%)
6. I have someone whom I can call with questions about my medicines	22 (30.1%)	39 (53.4%)	5 (6.8%)	2 (2.7%)	5 (6.8%)
7. My doctor/nurse and I work together to make decisions	20 (27.4%)	34 (46.6%)	13 (17.8%)	4 (5.5%)	2 (2.7%)
8. Have you taken a medicine more or less often than prescribed?	2 (2.7%)	15 (20.5%)	10 (13.7%)	28 (38.4%)	18 (24.7%)
9. Have you skipped or stopped taking a medicine because you didn't think it was working?	4 (5.5%)	19 (26%)	6 (8.2%)	23 (31.5%)	21 (28.8%)
10. Have you skipped or stopped taking a medicine because it made you feel bad?	4 (5.5%)	28 (38.4%)	5 (6.8%)	21 (28.8%)	15 (20.5%)
11. Have you skipped, stopped, not refilled, or taken less medicine because of the cost?	5 (6.8%)	6 (8.2%)	6 (8.2%)	22 (30.1%)	34 (46.6%)
12. Have you not had medicine with you when it was time to take it?	9 (12.3%)	28 (38.4%)	8 (11%)	13 (17.8%)	15 (20.5%)

Attachment I: Frequency distribution of ASK-12 questionnaire score

Attachment II. Original Communication Assessment Tool (CAT) (in English)

Communication with patients is a very important part of quality medical care. We would like to know how you feel about the way your medical team communicated with you. Your answers are completely confidential, so please be as open and honest as you can. Thank you very much.

1	2	3	4	5
Poor	Fair	Good	Very good	Excellent

Please use this scale to rate communication during this visit. Circle your answer for each item below.

The medical team	Poor				Excellent
1. Greeted me in a way that made me feel comfortable	1	2	3	4	5
2. Treated me with respect	1	2	3	4	5
3. Showed interest in my ideas about my health	1	2	3	4	5
4. Understood my main health concerns	1	2	3	4	5
5. Paid attention to me (looked at me, listened carefully)	1	2	3	4	5
6. Let me talk without interruptions	1	2	3	4	5
7. Gave me as much information as I wanted	1	2	3	4	5
8. Talked in terms I could understand	1	2	3	4	5
9. Checked to be sure I understood everything	1	2	3	4	5
10. Encouraged me to ask questions	1	2	3	4	5
11. Involved me in decisions as much as I wanted	1	2	3	4	5
12. Discussed next steps, including any follow-up plans	1	2	3	4	5
13. Showed care and concern	1	2	3	4	5
14. Spent the right amount of time with me	1	2	3	4	5

The front-desk staff	Poor				Excellent
15. Treated me with respect	1	2	3	4	5

|__|__|__|__|MM/YY MD/MS|__|__|__|__|__|__|__|__|

Attachment III. Informed consent form

Formulário de consentimento informado

Investigação no âmbito do Mestrado Integrado em Medicina

Investigadores: Sabrina Nicole Pereira Marques e Professor Dr. Luiz Miguel de Mendonça Soares Santiago

É convidado(a) a participar voluntariamente no estudo intitulado **"Comunicação médico-utente e a aderência terapêutica"**, que decorre no âmbito do Mestrado Integrado em Medicina (MIM) da Faculdade de Medicina da Universidade de Coimbra (FMUC).

Este estudo tem como objetivo principal estudar se a comunicação, através de escala própria para a sua medição na consulta, se correlaciona com melhor capacidade de cumprir e manter a terapêutica.

Pretendemos contribuir para um melhor conhecimento sobre este tema, sendo necessário, para tal, **a sua colaboração**.

Este estudo consiste no preenchimento de 2 questionários que serão **anónimos**, **sigilosos**, **confidenciais** e **não serão reveladas a terceiros**. Este estudo **não** lhe trará nenhuma despesa ou risco.

A sua participação neste estudo é **voluntária** e pode retirar-se a qualquer altura, ou recusar participar, sem que tal fato tenha consequências para si. Ainda lhe solicitamos que consinta em que o seus dados sejam inseridos em base de dados com todos os restantes para tratamento de dados e produção de resultados.

Declaro que recebi a informação necessária, fiquei esclarecido(a) e aceito participar voluntariamente neste estudo.

Assinatura participante: _____ Data: ____/____/____

Assinatura investigador: _____ Data: ____/____/____

Attachment IV. Online questionnaire via Google Forms

Comunicação médico-utente e a adesão à terapêutica

É convidado(a) a participar voluntariamente no estudo intitulado "Comunicação médico-utente e a adesão à terapêutica", que decorre no âmbito do Mestrado Integrado em Medicina (MIM) da Faculdade de Medicina da Universidade de Coimbra (FMUC).

A sua Unidade de Saúde Familiar consentiu na realização deste estudo após o mesmo ter tido parecer positivo de Comissão de Ética.

Este estudo tem como objetivo principal estudar se a comunicação, através de escala própria para a sua medição na consulta, se correlaciona com melhor capacidade de cumprir e manter a terapêutica. O tempo de preenchimento está estimado em 4 minutos.

Pretendemos contribuir para um melhor conhecimento sobre este tema, sendo necessário, para tal, a sua colaboração.

Este estudo consiste no preenchimento de 2 questionários e umas perguntas acerca de si garantindo-se que ninguém saberá quem respondeu nem como respondeu. Este estudo não lhe trará nenhuma despesa ou risco.

A sua participação neste estudo é voluntária e pode retirar-se a qualquer altura, ou recusar participar, sem que tal facto tenha consequências para si.

Ainda lhe solicitamos que consinta em que as suas respostas possam ser inseridas em base de dados em conjunto com as de outras pessoas para tratamento estatístico e produção de resultados.

Ninguém vai saber quem respondeu nem como respondeu.

Se tiver alguma dúvida ou questão pode contactar a investigadora através do e-mail: sabrina.np.marques@gmail.com que é o da aluna investigadora.

Investigadores: Sabrina Nicole Pereira Marques e Luiz Miguel Santiago, Professor Doutor

* Required

1. *

Mark only one oval.

◯ Declaro que recebi a informação necessária, fiquei esclarecido(a) e aceito participar voluntariamente neste estudo.

Qualidade de Comunicação

A comunicação é uma parte muito importante nos cuidados de saúde de qualidade. Gostaríamos de saber a sua opinião relativamente à forma como o médico falou consigo na sua última consulta. As suas respostas são completamente confidenciais, garantindo-se que ninguém vai saber quem respondeu nem como respondeu. Pedimos-lhe para que responda honestamente.

2. Por favor, avalie a forma como o médico comunicou consigo, selecionando uma resposta para cada pergunta relativa à sua última consulta com a/o médico. O médico... *

Mark only one oval per row.

	1 - Fraca	2 - Razoável	3 - Boa	4 - Muito boa	5 - Excelente
Cumprimentou-me de forma a que eu me sentisse confortável.	◯	◯	◯	◯	◯
Tratou-me com respeito.	◯	◯	◯	◯	◯
Mostrou interesse nas minhas ideias sobre a minha saúde	◯	◯	◯	◯	◯
Compreendeu as minhas principais preocupações sobre a minha saúde	◯	◯	◯	◯	◯
Mostrou-me a devida atenção (olhou para mim, ouviu-me atentamente)	◯	◯	◯	◯	◯
Deixou-me falar sem me interromper	◯	◯	◯	◯	◯
Proporcionou-me toda a informação que eu procurava	◯	◯	◯	◯	◯
Falou comigo utilizando palavras que eu compreendi	◯	◯	◯	◯	◯
Perguntou-me se compreendi o que me tinha dito	◯	◯	◯	◯	◯
Encorajou-me a fazer perguntas	◯	◯	◯	◯	◯
Envolveu-me em decisões tanto quanto queria	◯	◯	◯	◯	◯
Informou-me sobre os próximos passos, incluindo o plano de seguimento	◯	◯	◯	◯	◯
Demonstrou interesse e preocupação	◯	◯	◯	◯	◯
Levou o tempo necessário comigo	◯	◯	◯	◯	◯
Quem trabalha com o médico tratou-me com respeito	◯	◯	◯	◯	◯

Escala de adesão à Terapêutica ASK-12

Este questionário serve para perceber qual a sua adesão terapêutica. Isto é, se toma os medicamentos da forma como o(a) médico(a) os prescreveu. As suas respostas são completamente confidenciais, garantimos que ninguém vai saber como respondeu e que ninguém vai saber quem respondeu e como assim pedindo que responda honestamente.

3. Por favor, escolha a opção que melhor representa a sua opinião relativamente a cada afirmação. *

Mark only one oval per row.

	1 - Concordo muito	2 - Concordo	3 - Nem concordo, nem discordo	4 - Discordo	5 - Discordo muito
Só me esqueço de tomar os meus medicamentos de vez em quando.	◯	◯	◯	◯	◯
Fico sem medicamentos porque não os compro antes de acabarem.	◯	◯	◯	◯	◯
Tomar medicamentos mais que uma vez por dia é aborrecido.	◯	◯	◯	◯	◯
Acho que todos os meus medicamentos me irão ajudar.	◯	◯	◯	◯	◯
Eu sei quando estou a ficar melhor	◯	◯	◯	◯	◯
Eu sei com quem posso falar quando tenho problemas com os meus medicamentos.	◯	◯	◯	◯	◯
Eu e o meu médico/enfermeiro tomamos decisões em conjunto.	◯	◯	◯	◯	◯
Alguma vez tomou medicamentos mais ou menos vezes do que o receitado?	◯	◯	◯	◯	◯
Alguma vez não tomou ou parou de tomar um medicamento porque pensou que não estava a fazer efeito?	◯	◯	◯	◯	◯
Alguma vez não tomou ou parou de tomar um medicamento porque o fazia sentir-se mal?	◯	◯	◯	◯	◯
Alguma vez não tomou, parou, não comprou medicação ou tomou menos medicamentos do que os receitados por serem caros?	◯	◯	◯	◯	◯
Alguma vez não teve o medicamento consigo na hora de o tomar?	◯	◯	◯	◯	◯

Informação sobre si

As suas respostas são completamente confidenciais, garantimos que ninguém vai saber como respondeu e que ninguém vai saber quem respondeu e como assim pedindo que responda honestamente.

4. Sexo *

Mark only one oval.

- ◯ Masculino
- ◯ Feminino

5. Idade *

Mark only one oval.

- ◯ 18 a 34 anos
- ◯ 35 a 49 anos
- ◯ 50 a 64 anos
- ◯ Mais de 65 anos

6. Vive *

Mark only one oval.

- ◯ Só
- ◯ Acompanhado

7. Escolaridade *

Mark only one oval.

- ◯ Não sabe ler nem escrever
- ◯ Ensino primário (sem o 9º ano)
- ◯ Básico (com o 9º ano)
- ◯ Secundário (com o 12º ano)
- ◯ Superior

8. Rendimento mensal *

Mark only one oval.

- ◯ Inferior ao salário mínimo nacional
- ◯ Igual ou superior ao salário mínimo nacional

Attachment V. In-person questionnaire

Questionário sobre Qualidade de Comunicação

A comunicação é uma parte muito importante nos cuidados de saúde de qualidade. Gostaríamos de saber a sua opinião relativamente à forma como o médico falou consigo. As suas respostas são **completamente confidenciais**, garantimos que **ninguém vai saber como respondeu** e que **ninguém vai saber quem respondeu** e como assim pedindo que responda **honestamente**. Agradecemos a sua participação.

Por favor, avalie a forma como o médico comunicou hoje consigo. Selecione uma resposta para cada pergunta.

Pergunta \ Qualidade da comunicação O médico...	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
1. Cumprimentou-me de forma a que eu me sentisse confortável.	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
2. Tratou-me com respeito.	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
3. Mostrou interesse nas minhas ideias sobre a minha saúde	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
4. Compreendeu as minhas principais preocupações sobre a minha saúde	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
5. Mostrou-me a devida atenção (olhou para mim, ouviu-me atentamente)	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
6. Deixou-me falar sem me interrompe	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
7. Proporcionou-me toda a informação que procurava	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
8. Falou comigo utilizando palavras que eu compreendi	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
9. Perguntou-me se compreendi o que me tinha dito	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
10. Encorajou-me a fazer perguntas	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
11. Envolveu-me em decisões tanto quanto queria	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
12. Informou-me sobre os próximos passos, incluindo o plano de seguimento	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
13. Demonstrou interesse e preocupação	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
14. Levou o tempo necessário comigo	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente
15. Quem trabalha com o médico tratou-me com respeito	1 Fraca	2 Razoável	3 Boa	4 Muito boa	5 Excelente

Escala de adesão à Terapêutica ASK-12

Este questionário serve para perceber qual a sua adesão terapêutica. Isto é, se toma os medicamentos da forma como o(a) médico(a) os prescreveu. As suas respostas são **completamente confidenciais**, garantimos que **ninguém vai saber como respondeu** e que **ninguém vai saber quem respondeu** e como assim pedindo que responda **honestamente**. Agradecemos a sua participação.

Por favor, escolha a opção que melhor representa a sua opinião relativamente a cada afirmação.					
1. **Só me esqueço de tomar os meus medicamentos de vez em quando.**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
2. **Fico sem medicamentos porque não os compro antes de acabarem.**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
3. **Tomar medicamentos mais que uma vez por dia é aborrecido.**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
4. **Acho que todos os meus medicamentos me irão ajudar.**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
5. **Eu sei quando estou a ficar melhor**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
6. **Eu sei com quem posso falar quando tenho problemas com os meus medicamentos.**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
7. **Eu e o meu médico/enfermeiro tomamos decisões em conjunto.**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
8. **Alguma vez tomou medicamentos mais ou menos vezes do que o receitado?**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
9. **Alguma vez não tomou ou parou de tomar um medicamento porque pensou que não estava a fazer efeito?**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
10. **Alguma vez não tomou ou parou de tomar um medicamento porque o fazia sentir-se mal?**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
11. **Alguma vez não tomou, parou, não comprou medicação ou tomou menos medicamentos do que os receitados por serem caros?**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5
12. **Alguma vez não teve o medicamento consigo na hora de o tomar?**	Concordo muito 1	Concordo 2	Nem concordo Nem discordo 3	Discordo 4	Discordo Muito 5

Informação Demográfica:

As suas respostas são **completamente confidenciais**, garantimos que **ninguém vai saber como respondeu** e que **ninguém vai saber quem respondeu** e como assim pedindo que responda **honestamente**.
Agradecemos o seu tempo e as suas respostas.

Sexo:

- ☐ Masculino
- ☐ Feminino

Idade:

- ☐ 18 a 34 anos
- ☐ 35 a 49 anos
- ☐ 50 a 64 anos
- ☐ Mais de 65 anos

Vive:

- ☐ Só
- ☐ Acompanhado

Grau de Escolaridade:

- ☐ Não sabe ler nem escrever
- ☐ Ensino primário (sem o 9º ano)
- ☐ Básico (com o 9º ano)
- ☐ Secundário (com o 12º ano)
- ☐ Superior

Rendimento mensal:

- ☐ Inferior ao salário mínimo nacional
- ☐ Igual ou superior ao salário mínimo nacional

Attachment VI. Authorisation of the Ethics Committee of the ARS Centro

GOVERNO DE PORTUGAL
MINISTÉRIO DA SAÚDE

ARSC ADMINISTRAÇÃO REGIONAL DE SAÚDE DO CENTRO, I.P.

COMISSÃO DE ÉTICA PARA A SAÚDE

PARECER FINAL:	DESPACHO:
POSITIVO	29.07.2021

Conselho Directivo
da A.R.S. do Centro, I.P.

ASSUNTO: **Parecer sobre o Projeto 57/2021** – "Comunicação médico-utente e a adesão à terapêutica"

Dr.ª Rosa Reis Marques
Presidente,

Este estudo é apresentado por Sabrina Nicole Pereira Marques, estudante do 5º ano da Faculdade de Medicina da Universidade de Coimbra, no âmbito de uma dissertação de mestrado orientada pelo Prof. Doutor Luiz Santiago.

O seu objetivo é proceder a uma adaptação cultural da escala "Communication Assessment Tool" (CAT) para utentes portugueses. Será também utilizada a versão portuguesa do instrumento de medição "Adherence Starts with Knowledge" (ASK-12) de autoria do orientador da dissertação.

A base de dados a criar pelos investigadores será baseada em respostas a questionários auto preenchidos pelos doentes após terem assinado um consentimento informado. O estudo será implementado Clínica Universitária de Medicina Geral e Familiar da Faculdade de Medicina da Universidade de Coimbra.

Face ao exporto, esta Comissão de Ética emite o seu parecer positivo ao projeto.

O Relator: Prof. Doutor Pedro Lopes Ferreira

O Presidente da CES: Prof. Doutor Fontes Ribeiro