

Popularization Strategies in Public Health Discourse: a Corpus-based Analysis in Portuguese and Chinese





1. Introduction

COVID-19

Disease caused by the SARS-CoV-2 virus

Novel coronavirus

Coronaviruses are viruses that **circulate among animals** but some of them are also known to affect humans.

The 2019 novel coronavirus was identified in China at the end of 2019 and is a new strain that has not previously been seen in humans.

Symptoms

- FEVER
- COUGH
- DIFFICULTY BREATHING
- MUSCLE PAIN
- TIREDFNESS



Prevention

When visiting affected areas

Avoid contact with sick people



Wash your hands with soap and water



If you develop cough, use a medical face mask



Wherever you travel apply general hygiene rules

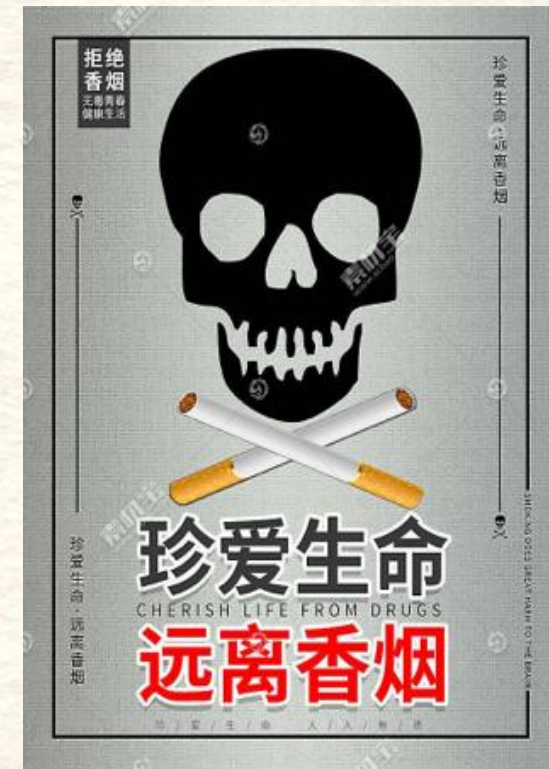
Transmission

VIA RESPIRATORY DROPLETS

2-14 days
estimated incubation period



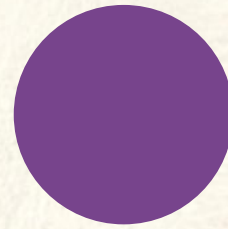
The accessibility of information has empowered individuals to self-educate, particularly in matters of public health



2. Trends in Public Self-Education



Platforms of
engagement



Closing the
communication gap



Crucial skill:
scientific literacy

3. Language for Specific Purposes in Medical Discourse

Vertical structure of medical discourse in Language for Specific Purposes (LSP)

Internal communication

External discourse

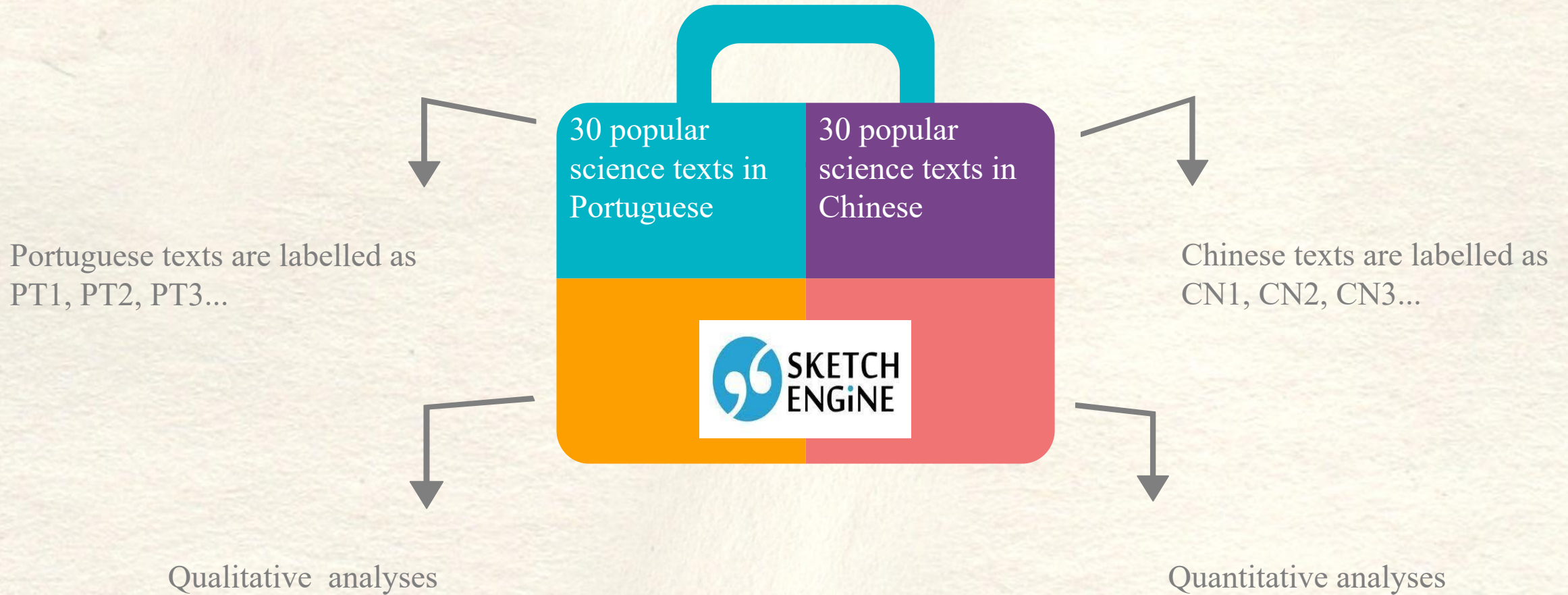
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Involves doctor-patient interactions and communication with a broader audience

4. Reformulation markers

Reformulation markers in Chinese	Reformulation markers in Portuguese
即Pinyin (PY): (jí) PT: nomeadamente ENG: namely	-
换言之(huàn yán zhī) PT: por outras palavras ENG: in other words	-
换句话说/换句话说讲 (huàn jù huà shuō / huàn jù huà jiǎng) ENG: in other words	ou seja noutros termos, dito de outro modo, por outras palavras
也就是说/这就是说(yě jiù shì shuō / zhè jiù shì shuō) ENG: that is to say	isto é
这(就)意味着(zhè (jiù) yì wèi zhe) ENG: meaning / that is	quer dizer

Most common paraphrastic markers of reformulation

5. Method



6. Quantitative analysis of reformulation markers

Corpus PT	Corpus CH	Frequency			
		ou seja	noutros termos, ditos de outro modo, por outras palavras	isto é	quer dizer
		换句话说(huàn jù huà shuō) LT: change sentence words explain / change sentence words explain		也就是说(yě jiù shì shuō) LT: also that's it yes explain	这(就)意味(zhè (jiù) yì wèi zhe)
PT20		4	0	0	0
PT1, PT3		3	0	0	0
PT2, PT15, PT19, PT23, PT26, PT29, PT30		2	0	0	0
PT4, PT5, PT6, PT7, PT8, PT9, PT10, PT11, PT12, PT14, PT16, PT17, PT18, PT21, PT22, PT24, PT25, PT27, PT28	CH8, CH9, CH10, CH11, CH12, CH13, CH15, CH17, CH18, CH19, CH22, CH23, CH24, CH25, CH27, CH28	1	0	0	0
PT13		1	0	1	0
PT18	CH1, CH2, CH3, CH4, CH5, CH6, CH7, CH14, CH16, CH21, CH26, CH30	0		1	0
	CH29	0		3	
	CH20	0		2	

Frequency of reformulation markers in both corpora

7.1 Qualitative analysis of portuguese reformulation markers - *ou seja* (huàn jù huà shuō) and *isto é* (yě jiù shì shuō)

The expressions *isto é* and *ou seja* share a similar meaning, translating into English as *that is* or *in other words*. However, they are employed in slightly distinct contexts in the Portuguese language.

PT20: (...) Cholesterol is part of the cell membrane, if there is a lack of cholesterol when you renew your cells, they may have a rigid membrane and cellular exchange will be compromised. Recent research indicates that cholesterol can act as an antioxidant, *ou seja (in other words)*, it protects cells against the harmful effects of free radicals. (...) The more adipocytes you fill, the more they will increase in volume and weight, *ou seja (in other words)*, you will put on weight! [*ou seja* is reformulation of the last sentence] *Isto é (That is to say)* what happens when you exercise and your muscles need energy. [*Isto é* is explanation of the above statement] That's why intense exercise makes you lose weight! During exercise, a process called glycogenolysis takes place, *ou seja (in other words)*, glucose is transformed into glycogen to be used as fuel. [*ou seja* is a explanation the of glicogénese] If glycogen starts to drop, the body starts another process, neoglycogenesis, *ou seja (in other words)*, it goes into the reserves to get these triglycerides and uses the fat molecules as energy and the glycerol as glucose, so there's energy again and you get slimmer. [own translation] [*ou seja* is a explanation the of neoglicogénese]

7.1 Qualitative analysis of portuguese reformulation markers - *ou seja* (huàn jù huà shuō) and *isto é* (yě jiù shì shuō)

PT13: (...) It is in the vessels through which the blood circulates that the main effects of the toxic substances that tobacco contains will occur, damaging the vascular endothelium, *isto é (that is to say)*, the thin cellular layer that lines the inside of the vessels. It is important to stop smoking altogether and moderate alcohol consumption. [*Isto é* is used to explain the medical term introduced earlier, the vascular endothelium] If this is done before irreversible damage is established, complaints can improve. *Ou seja (In other words)*, the sooner you give up tobacco addiction and alcohol abuse, the better the prospects for recovery, not only sexually, but also for the cardiovascular system and other systems. [*ou seja* is employed to reiterate the positive health effects of quitting smoking and limiting alcohol consumption]

7.2 Qualitative analysis of chinese reformulation markers - *ou seja* (huàn jù huà shuō) and *isto é* (yě jiù shì shuō)

The expressions *isto é* and *ou seja* share a similar meaning, translating into English as *that is* or *in other words*. However, they are employed in slightly distinct contexts in the Portuguese language.

CH23: (...) It can be seen that the culprit of hyperlipidaemia is improper diet, and the key to preventing and controlling hyperlipidaemia is also diet, **换句话说 (huàn jù huà shuō, in other words)**, improper diet will lead to hyperlipidaemia [own translation]. **[The function of 换句话说 (huàn jù huà shuō) is reformulation and simplification of the last sentence]**

CH6: (...) Nowadays, a variety of fruits on the market in large quantities, people in the feast at the same time, some of the discomfort caused by eating fruit also often happen. **也就是说 (yě jiù shì shuō, that is to say)**, fruit also has "side effects", especially the following situations to pay more attention [own translation]. **[The function of 也就是说 (yě jiù shì shuō) is to generalise and explain]**

8. Conclusions

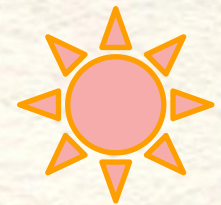
The discourse marker *ou seja* is employed to rephrase or express something in a different way to enhance understanding, and be used for discourse strategies that imply a reformulation of the speech.



The discourse marker *ou seja* can also be used to introduce new information for clarification purposes.



The discourse marker *isto é* is used to offer additional clarification or explanation of a preceding statement.



Thanks for your attention

