Codebook for df

Autogenerated data summary from dataMaid

2024-02-01 12:18:22

Data report overview

The dataset examined has the following dimensions:

Feature	Result
Number of observations	29
Number of variables	121

Codebook summary table

Label	Variable	Class	# unique values	Missing	Description
	response_id	character	29	0.00 %	
	artificial_intelligence_in_oral_health_is_a_technology_that_enables_machines_to_perform_	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_3	character	4	6.90 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	convolutional_neural_network_cnn_is_a_type_of_deep_learning_architecture_currently_popul	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_6	character	4	27.59 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	deep_learning_in_health_deep_learning_is_a_particularly_complex_subset_of_machine_learni	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_9	character	4	20.69 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	digital_health_umbrella_term_that_comprises_e_health_which_includes_mobile_health_and_th	character	1	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_12	character	4	6.90 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	e_consent_remote_electronic_consenting_a_component_of_e_health_almeida_magalhaes_2022	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_15	character	3	20.69 %	

Label	Variable	Class	# unique values	Missing	Description
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	e_health_products_systems_and_services_that_go_beyond_simply_internet_based_applications	character	3	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_18	character	4	13.79%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	e_health_record_media_that_facilitate_transportability_of_pertinent_information_concerni	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_21	character	3	20.69%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	e_learning_refers_to_the_use_of_internet_technologies_and_online_learning_to_deliver_med	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_24	character	4	17.24%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	e_oral_health_can_be_described_as_the_cost_effective_and_secure_use_of_information_and_c	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_27	character	4	6.90%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	e_prescription_the_use_of_computer_communication_networks_to_store_and_transmit_medical_	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_30	character	3	17.24%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	e_referral_the_exchange_of_significant_patient_information_from_one_treating_healthcare_	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_33	character	3	20.69%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	health_informatics_health_informatics_has_been_defined_by_who_as_an_umbrella_term_used_t	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_36	character	4	13.79%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	health_telematics_health_related_activities_services_and_systems_carried_out_over_a_dist	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_39	character	4	27.59%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	79.31%	
	health_technology_any_technology_that_aims_to_advance_the_delivery_payment_and_consumpti	character	2	0.00%	

Label	Variable	Class	# unique values	Missing	Description
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_42	character	4	27.59 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	health_information_and_communication_technologies_or_health_information_system_a_set_of_	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_45	character	2	31.03 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	internet_of_things_a_system_of_interrelated_computing_devices_mechanical_and_digital_mac	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_48	character	3	31.03 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	machine_learning_in_oral_health_machine_learning_ml_is_a_subset_of_artificial_intelligen	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_51	character	4	27.59 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	m_oral_health_the_use_of_mobile_and_wireless_technologies_such_as_mobile_phones_tablet_c	character	1	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_54	character	2	6.90 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	natural_language_processing_nlp_an_intersection_of_ai_and_linguistics_that_refers_to_com	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_57	character	4	37.93 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	patient_portal_for_health_information_is_a_health_information_technology_tool_that_is_pr	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_60	character	3	24.14 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	real_time_synchronous_live_two_way_interaction_between_a_person_patient_caregiver_or_pro	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_63	character	2	24.14 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	
	robotics_or_robotics_for_healthcare_systems_able_to_perform_coordinated_mechatronic_acti	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_66	character	4	27.59 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.83 %	

Label	Variable	Class	# unique values	Missing	Description
	serious_games_gamification_serious_games_is_the_computer_application	character		0.00%	lication_for_which_the_origi
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_69	character	4	27.59%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	store_and_forward_asynchronous_transmission_of_recorded_health_information_for_example_r	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_72	character	2	20.69%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	tele_assistance_tele_support_support_to_remote_health_facilities_located_in_isolated_are	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_75	character	4	24.14%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	telecare_systems_and_services_capable_of_social_alert_and_social_services_e_g_to_moni	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_78	character	4	27.59%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	tele_consultation_a_consultation_made_remotely_sometimes_referred_to_as_remote_consultat	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_81	character	3	17.24%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	teledentistry_represents_the_uses_of_ict_for_dental_consultations_diagnosis_and_treatmen	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_84	character	4	10.34%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	tele_diagnosis_the_use_of_information_and_communication_technology_to_establish_a_diagno	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_87	character	3	20.69%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	tele_education_or_e_learning_a_process_by_which_change_can_be_catalysed_in_attitudes_kno	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_90	character	4	27.59%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.13%	
	telehealth_a_collection_of_electronic_and_telecommunications_technologies_and_services_t	character	2	0.00%	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_93	character	3	10.34%	

Label	Variable	Class	# unique values	Missing	Description
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	tele_intervention_a_therapeutic_medical_act_which_is_performed_remotely_by_a_physician_o	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_96	character	4	34.48 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	tele_medicine_telemedicine_is_the_provision_of_health_care_services_through_the_use_of_i	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_99	character	4	20.69 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	tele_monitoring_the_remote_exchange_of_physiological_data_between_a_patient_at_home_and_	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_102	character	4	17.24 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	tele_orientation_tele_orientation_through_a_pre_clinical_questionnaire_to_determine_the_	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_105	character	4	34.48 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	tele_surgery_the_remote_controlling_of_surgical_apparatus_e_g_a_surgical_robot_by_an_exp	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_108	character	4	31.03 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	tele_triage_evaluation_of_a_patient_s_symptoms_through_remote_consultation_using_informa	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_111	character	4	17.24 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	wearable_sensors_it_enables_providing_real_time_sensing_information_about_the_wearer_and	character	2	0.00 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_114	character	3	24.14 %	
	do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_commen	character	7	75.86 %	
	about_the_figures_is_complete_i_e_other_elements_must_be_included_fig_1	character	2	0.00 %	
	about_the_figures_is_complete_i_e_other_elements_must_be_included_fig_2	character	2	0.00 %	
	about_the_figures_is_complete_i_e_other_elements_must_be_included_fig_3	character	2	0.00 %	
	about_the_figures_is_self_descriptive_fig_1	character	2	0.00 %	

Label	Variable	Class	# unique values	Missing	Description
	about_the_figures_is_self_descriptive_fig_2	character	2	0.00 %	
	about_the_figures_is_self_descriptive_fig_3	character	2	0.00 %	

Variable list

response_id

- The variable is a key (distinct values for each observation).

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artificial_intelligence_in_oral_health_is_a_technology_that_enables_machines_to_perform_

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
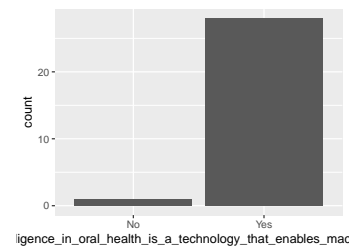
- Observed factor levels: "No", "Yes".

### do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_3

Feature	Result
Variable type	character
Number of missing obs.	2 (6.9 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

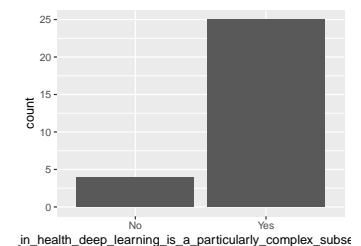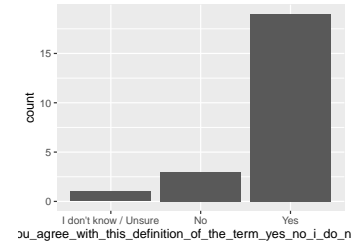## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	16 (55.17 %)
Number of unique values	13
Mode	"Artificial intelligence in oral health refers to the use of computer algorithms and machine learning techniques to analyze data and make decisions related to oral health care."
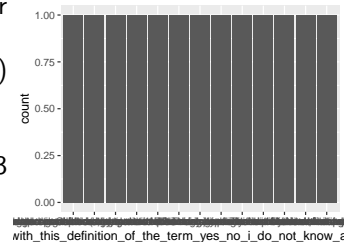
- Observed factor levels: "Artificial intelligence in oral health refers to the use of computer algorithms and machine learning techniques to analyze data and make decisions related to oral health care.", "Artificial intelligence is the output/knowledge created by machine learning technology, not the technology itself. The rest of the definition (In the field of. . .) is correct.", "Could be better described", "For me this definition could be more concrete. It's a technology, but most definitions refer to the word intelligence/'science'. Maybe we could add something, like "AI leverages computers and machines to mimic human's intelligence processes, like problem-solving and decision-making capabilities of the human mind. (IBM) or AI combines computer science and robust datasets, to enable problem-solving.", "I think that this bit"it is also integrated into dental laboratory practices." should be changed to "it can also integrated into dental laboratory practices." This is because AI in oral health can be integrated into other systems like Public health systems where specific oral health systems do not exist.", "I think there are better and more precise definitions out there. I can't understand the concrete purpose of the first sentence. The definition itself does not mention applications like assistance in clinical decision making or automation of administrative workflows. However I am not an expert in the field of AI and dont have a good overview of the current literature.", "I would like to suggest do replace "normal and abnormal structures" with "anatomical and pathological structures"", "In addition to the tasks described, AI in oral health is also used for dental care services management and administration and to support decision not only in clinics, but also in dental public health", "Just an editing matter: in the last portion of the statement- It should be . . . ..prediction of treatment outcomes, and also integrated into dental laboratory practices.", "looks good to me, but I don't have much experience in AI so I do not feel that my opinion holds much value.", "No.", "Planning of treatment may also be completed by an AI system.", "The explanation seems incomplete. From my understanding- AI can be defined as: AI is a field that deals with theory and development of computer systems with an ability to perform tasks on par with human intelligence. In oral health AI can support oral health specialists (and connected domains) in early identification of oral diseases, clinical decision making, rapid and reliable data interpretation, improve process and workflow automation of clinical and administrative tasks, treatment monitoring, predict disease and treatment outcomes and overall improve care quality and patient experience. (https://www.linkedin.com/in/arunakiry-natarajan/)/".

convolutional_neural_network_cnn_is_a_type_of_deep_learning_architecture_currently_popul

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
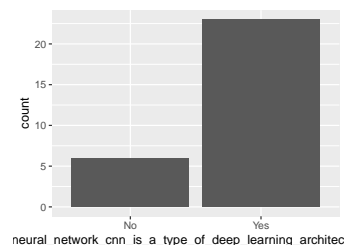
- Observed factor levels: "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_6

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"
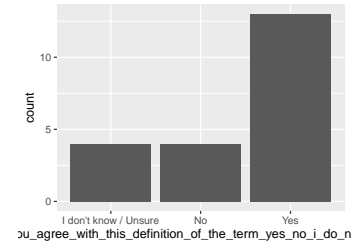
- Observed factor levels: "I don't know / Unsure", "No", "Yes".

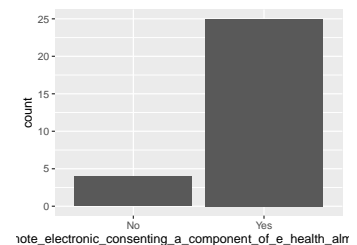## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	20 (68.97 %)
Number of unique values	9
Mode	"Can be better described"
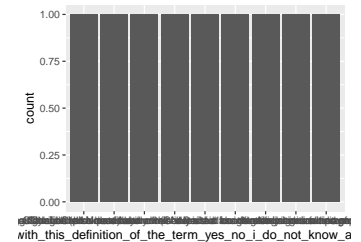
- Observed factor levels: "Can be better described", "CNN is a type of ANN and deep learning algorithms which are designed for the processing of images (pixel data) and commonly used for image recognition and processing. (https://www.linkedin.com/in/arunakiry-natarajan/)/", "Could add a diagram to illustrate the meanings of different terminology. The term needs some brief details in another line such as its components (e.g., feature extraction, classification..)", "I understand this is the definition on Pubmed. It does not, however, clarify things a lot. What I know beyond this is limited: I understand it is a series of models that build on each other to generate a logarithm to identify things.", "I would add CHH is particularly well-suited for image recognition and processing tasks.", "In terms of definition, it needs some detail: Suggestion- 'Convoluted Neural Network (CNN) is a class of artificial neural networks in deep learning and has applications medical oral radiographic analysis.'", "No.", "Not only medical image", "To my understanding, CNNs can also be used in other areas that do not use images for diagnosis, such as psychiatry and speech language (in speech recognition, for example).".

deep_learning_in_health_deep_learning_is_a_particularly_complex_subset_of_machine_learni

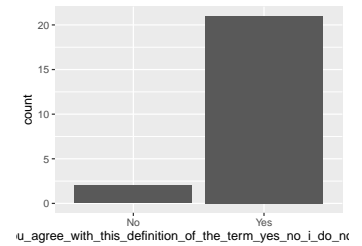| Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

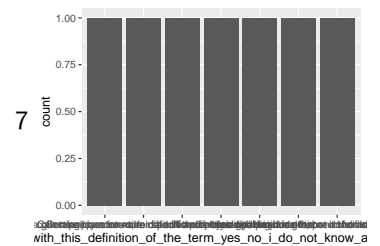## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_9

Feature	Result
Variable type	character
Number of missing obs.	6 (20.69 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"deep learning incorporates hidden layers and outperforms machine learning. Well-developed deep learning models used imaging data for disease detection"
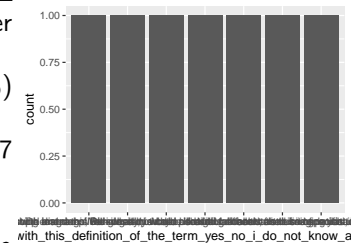
- Observed factor levels: "deep learning incorporates hidden layers and outperforms machine learning. Well-developed deep learning models used imaging data for disease detection", "I believe the definition is too general, and is more about DL instead of DL in health. Maybe should talk about the use of patient data to train healthcare model", "Is it possible to supplement this with what it is not.... like "it is different from x where y is used ....."", "No.", "Personally, I would add oral to health, as this is specific to dentistry", "Simple definitions to the point. Yet, again with diagrams, the glossary would be useful rather than defining words in a text. A diagram can show the input, feature extraction/classification, and output.", "The definition is correct but not conclusive. The difference between machine learning and deep learning is not clear. It might become a little bit technical, but the many layers and self-learning aspect may be an addition that highlights the difference between machine learning and deep learning.".

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digital_health_umbrella_term_that_comprises_e_health_which_includes_mobile_health_and_th

- The variable only takes one (non-missing) value: "Yes". The variable contains 0 % missing observations.

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_12

Feature	Result
Variable type	character
Number of missing obs.	2 (6.9 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	23 (79.31 %)
Number of unique values	6
Mode	"Deep learning in health and the CNN are outside of my range. I do not agree nor disagree as this is also not my area of expertise. As for digital health, I am not sure what the"internet of things" is. It sounds odd, but that may be because I don't know what it was."
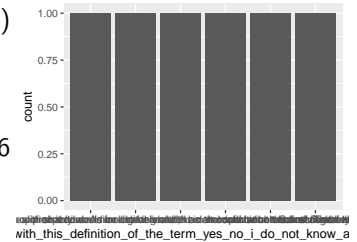
- Observed factor levels: "Deep learning in health and the CNN are outside of my range. I do not agree nor disagree as this is also not my area of expertise. As for digital health, I am not sure what the "internet of things" is. It sounds odd, but that may be because I don't know what it was.", "Does digital health need to reduce costs of services? I think it aims it, but in my opinion it doesn't need to be included in the definition. It can also increase the costs, but improve the quality of healthcare, can't it?", "I agree with some parts of the definition. In my opinion, it limits the definition of digital health to using equipment, technologies, etc only. I came across a broader definition by Dr. Bertalan Mesko. It states that "Digital Health is the cultural transformation of how disruptive technologies that provide digital and objective data accessible to both caregivers and patients leads to an equal level doctor-patient relationship with shared decision-making and the democratization of care" The key components of definition 1) its is a cultural transformation of care 2) it uses technologies that provide data to Both patients and medical professionals 3) it leads to an equal-level partnership between them Reference: Meskó B, Drobni Z, Bényei É, Gergely B, Győrffy Z. Digital health is a cultural transformation of traditional healthcare. mHealth 2017;3:38. This can be adapted to digital health in dental medicine.", "I probably would include telehealth as an important brunch of Digital Health / e-health.", "It could be better described", "Same as above".

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e_consent_remote_electronic_consenting_a_component_of_e_health_almeida_magana_2022
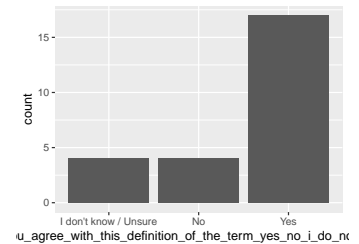
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

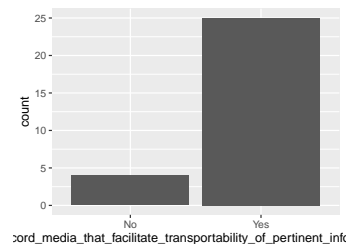## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_15

Feature	Result
Variable type	character
Number of missing obs.	6 (20.69 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

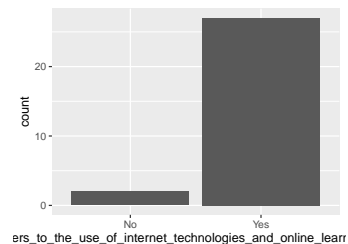| Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"A digital or electronic record of a dental consumer's/ patient's choices, which permits or denies identified recipient(s) or recipient role(s) to perform one or more actions within a given policy context, for specific purposes and periods of time. modified from FHIR based standard definition for Consent https://hl7.org/fhir/consent.html (https://www.linkedin.com/in/arunakiry-natarajan/)"

- Observed factor levels: "A digital or electronic record of a dental consumer's/ patient's choices, which permits or denies identified recipient(s) or recipient role(s) to perform one or more actions within a given policy context, for specific purposes and periods of time. modified from FHIR based standard definition for Consent https://hl7.org/fhir/consent.html (https://www.linkedin.com/in/arunakiry-natarajan/)", "Can take place on-site in addition to remotely.", "Consent can be more difficult and I think defining it is great.", "I think the emphasis here is on"e-/ electronic" rather than "remote". For example, if I am collecting questionnaire data in the field and participants respond themselves on a table or phone I provide by ticking a consent box, it would be electronic but not remote.", "No", "Not directly digital oral health, but it should be included", "you could include the need for an electronic identifier".

e_health_products_systems_and_services_that_go_beyond_simply_internet_based_applications
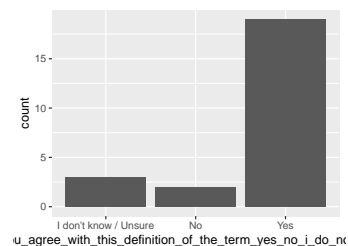
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
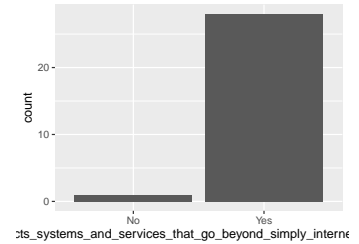
- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_18

Feature	Result
Variable type	character
Number of missing obs.	4 (13.79 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"I feel like e-health and digital health are close enough that we need to really emphasize the difference"
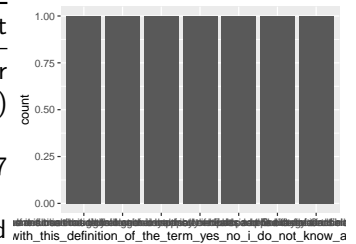
- Observed factor levels: "I feel like e-health and digital health are close enough that we need to really emphasize the difference", "I have doubts about the real scope of e-health, as we started using in a more global perspective the term digital health. If it is true that digital health comprises e-health, where exactly are the boundaries between one and the other? In other words, what is digital health but not e-health?", "I think the term ehealth has developed since 2004 and has to be integrated / distinguished with terms like digital health and healthtech. i like this one from the who more: eHealth is the transfer of health resources and healthcare by electronic means. It includes a broad range of technologies vital to the operation of the health system, such as electronic health records, systems supporting clinical treatment, standards for the exchange of health information, and mobile health (mHealth).", "In addition to the statement, it would be great to add the purpose of e-health in the definition. I came across this definition of eHealth by the European Society of Cardiology. e-Health "is the use of information and communication technology to support health and healthcare."", "Simple internet-based applications are part of e-health, and it misses the health component. The WHO (2023) defines eHealth as the cost-effective and secure use of information and communications technologies in support of health and health-related fields, including health-care services, health surveillance, health literature, and health education, knowledge and research. Not sure about the cost-effective and secure part of the definition (see previous comment)", "The definition indicates it goes beyonf internet based apps but does not in the second half mention anything about "e-".", "The definition is narrow.".

e_health_record_media_that_facilitate_transportability_of_pertinent_information_concerni

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_21

Feature	Result
Variable type	character
Number of missing obs.	6 (20.69 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"I think the first sentence of the definition needs to include something about"e-"."
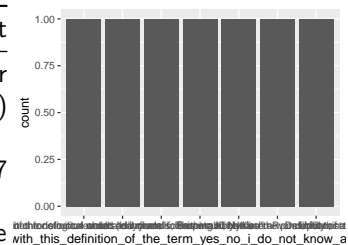
- Observed factor levels: "I think the first sentence of the definition needs to include something about "e-".", "I would add dental", "I would at least mention the capabilites for structured data entry and interoperability Also the possibility of a longitudinal patient record.", "Is a record media? EHR are a digital repository of patient data and contain retrospective, current, and prospective information in chronological order. (Häyrinen K, Saranto K, Nykänen P. Definition, structure, content, use and impacts of electronic health records: a review of the research literature. Int J Med Inform. 2008;77(5):291-304.)", "No", "This would be such a wonderful thin to have.", "Update".

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e_learning_refers_to_the_use_of_internet_technologies_and_online_learning_to_deliver_med
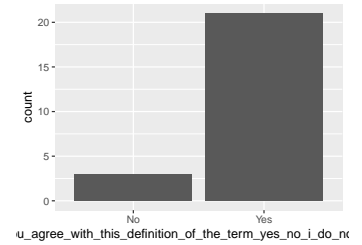
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_24

Feature	Result
Variable type	character
Number of missing obs.	5 (17.24 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

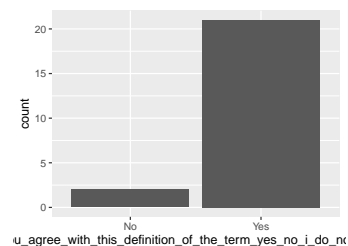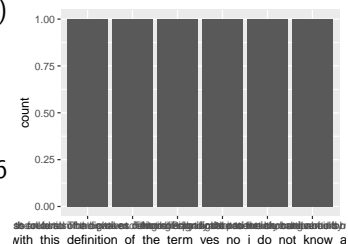## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	21 (72.41 %)
Number of unique values	8
Mode	"E-learning, or electronic learning, refers to the use of digital technologies to deliver educational content and support learning. This can include a wide range of different tools and platforms, such as online courses, virtual classrooms, webinars, educational software, and mobile apps."
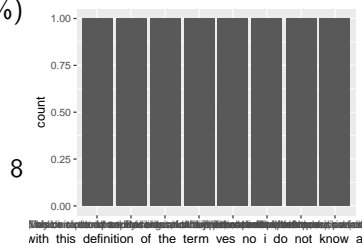
- Observed factor levels: "E-learning, or electronic learning, refers to the use of digital technologies to deliver educational content and support learning. This can include a wide range of different tools and platforms, such as online courses, virtual classrooms, webinars, educational software, and mobile apps.", "Instead of the term "medical education", which is restrict to phyisicians, I wolud rather prefer health professionals education.", "It can also include dental students and trainees, as another example.", "It sounds like it includes patient education?", "May be replace "medical education" by "education" or "healthcare professions education"", "The definition is narrow", "This e-health record definition induces that it must be transported or linked to destination x, but in my opinion a record has not a primary function to transport. Records must support e-health (processes), even if the record stays in the media it was originally recorded. Of course, it has the ability to exchange but an e-health record

is primary a record that is registered to support e-health(care).", "This is not restricted to medical (or even health education)".

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e_oral_health_can_be_described_as_the_cost_effective_and_secure_use_of_information_and_c

- The variable only takes one (non-missing) value: "Yes". The variable contains 0 % missing observations.

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_27

Feature	Result
Variable type	character
Number of missing obs.	2 (6.9 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	21 (72.41 %)
Number of unique values	8
Mode	"I am not sure about"the cost-effective and secure use" See my previous comment"
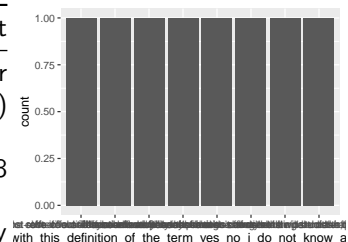
- Observed factor levels: "I am not sure about "the cost-effective and secure use" See my previous comment", "I suggest replacing "oral health education" by "oral health promotion" or adding the latter. Not sure if "cost-effective" would be restrictive .....most existing studies/ applications do not have an economic evaluation to support this.", "It could be better described", "Maybe reword/delete the "cost-effective" bit", "remove word "cost-effective" as these aren't always the most cost-effective option.", "The cost-effectiveness and security of e-health should not be part of the definition as it cannot be ensured.", "This seems very broad. I am guessing there will be other terms that will get more specific.", "We could also include as possible functions of e-health / telehealth, the dimension of management of helth services network.".

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e_prescription_the_use_of_computer_communication_networks_to_store_and_transmit_medical_

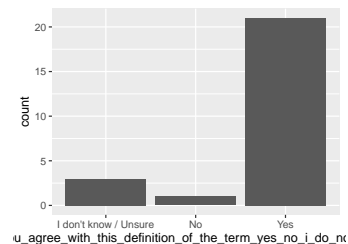| Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
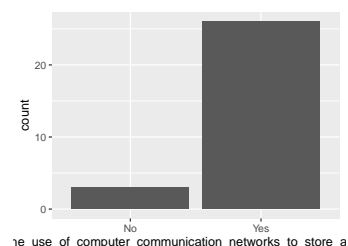
- Observed factor levels: "No", "Yes".

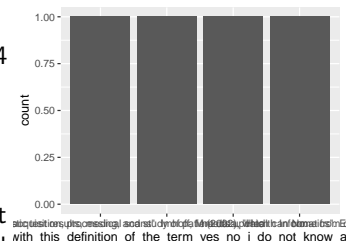## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_30

Feature	Result
Variable type	character
Number of missing obs.	5 (17.24 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"Add dental"
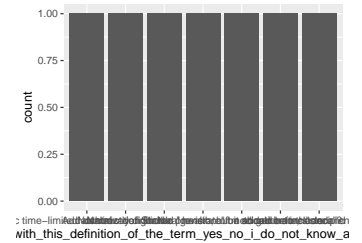
- Observed factor levels: "Add dental", "Narrow definition", "No", "Not directly digital oral health, but it should be included", "Should "generate" be added before "store"?", "The definition provided is the description of a CPOE system and not of the e.prescription it self. e-prescription is an electronic time-limited authorization for the provision of medication to the recipient from a licensed authority in providing oral care. Please note that e- prescriptions can have scopre beyond medication (https://www.linkedin.com/in/arunakiry-natarajan/)/", "to generate, store and transmit ..".

---

e_referral_the_exchange_of_significant_patient_information_from_one_treating_healthcare_

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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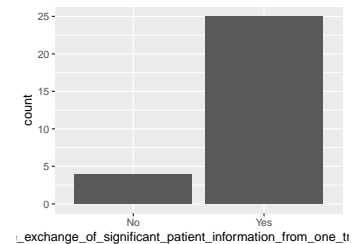
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_33

Feature	Result
Variable type	character
Number of missing obs.	6 (20.69 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	23 (79.31 %)
Number of unique values	6
Mode	". . . but it also includes the coordination of the patient treatment, further enquiries of information and case discussions and the referral of the patient. This definition limits it to the exchange of information which for me is a prerequisite but not the actual use case of an e-referral"

- Observed factor levels: ". . . but it also includes the coordination of the patient treatment, further enquiries of information and case discussions and the referral of the patient. This definition limits it to the exchange of information which for me is a prerequisite but not the actual use case of an e-referral", "Edit: Add digital as follows: The digital exchange of significant patient information. . . . .", "It could also be between centers: Primary care to tertiary care centers", "No.", "Not directly digital oral health, but it should be included", "To my knowledge, a referral is not only an exchange of info, but also an action that involves referring a patient to receive care delivered by another professional. This encompasses comprehensiveness and care cordination, which are key attributes of primary care".

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health_informatics_health_informatics_has_been_defined_by_who_as_an_umbrella_term_used_t

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
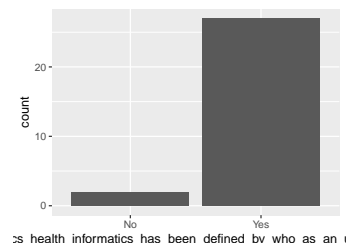
- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_36

Feature	Result
Variable type	character
Number of missing obs.	4 (13.79 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

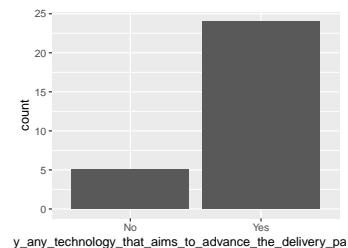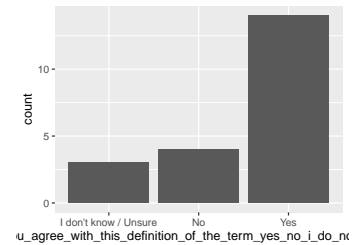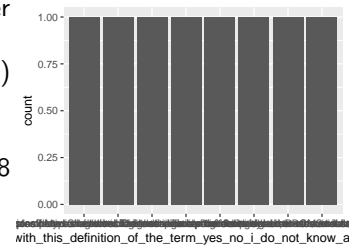## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"I think it is missing how these technologies are being used to support health-related fields. Can adapt from this definition"Health informatics is the field of science and engineering that aims at developing methods and technologies for the acquisition, processing, and study of patient data, which can come from different sources and modalities, such as electronic health records, diagnostic test results, medical scans" Imhoff, M (2002). "Health Informatics". Evaluating Critical Care: 255–256. doi:10.1007/978-3-642-56719-3_18. ISBN 978-3-540-42606-6. Sami HR, Reynolds NC (7 May 2021). Talavera F, Busis NA, Lorenzo N (eds.). "Medical informatics in neurology: What Is Medical Informatics?, Signal Processing, Image Processing". EMedicine: Medscape's Continually Updated Clinical Reference."

- Observed factor levels: "I think it is missing how these technologies are being used to support health-related fields. Can adapt from this definition "Health informatics is the field of science and engineering that aims at developing methods and technologies for the acquisition, processing, and study of patient data, which can come from different sources and modalities, such as electronic health records, diagnostic test results, medical scans" Imhoff, M (2002). "Health Informatics". Evaluating Critical Care: 255–256. doi:10.1007/978-3-642-56719-3_18. ISBN 978-3-540-42606-6. Sami HR, Reynolds NC (7 May 2021). Talavera F, Busis NA, Lorenzo N (eds.). "Medical informatics in neurology: What Is Medical Informatics?, Signal Processing, Image Processing". EMedicine: Medscape's Continually Updated Clinical Reference.", "Is it a discipline or a field of science and engineering that aims at developing methods and technologies for the acquisition, processing, and study of patient data, which can come from different sources and modalities, such as electronic health records, diagnostic test results, medical scans?", "needs update", "No.".

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health_telematics_health_related_activities_services_and_systems_carried_out_over_a_dist

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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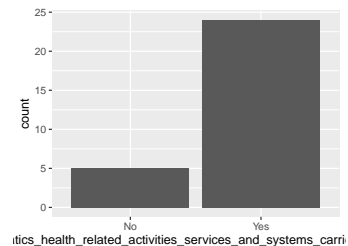
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_39

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

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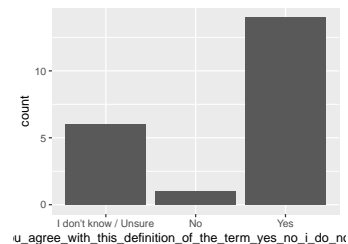
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	24 (82.76 %)
Number of unique values	5
Mode	"Could this term be changed to telemedicine or telehealth?"
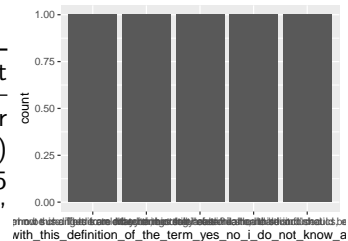
- Observed factor levels: "Could this term be changed to telemedicine or telehealth?", "I am not sure. There are many things that are similar on this list.", "It is an old term, but still in use. it should be included", "May be the term "eletronic health record"should be includes.", "Needs examples to understand how this is implemented on the ground; how this differs from other terminology of e-health, health informatics, etc. Add distinguishing terms for each, maybe! Health informatics, for example, is a field rather than activities or technologies?!".

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health_technology_any_technology_that_aims_to_advance_the_delivery_payment_and_consumpt
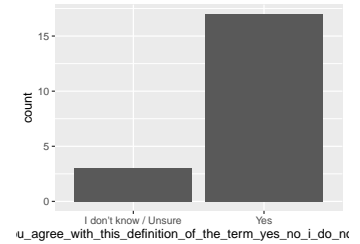
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_42

| Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

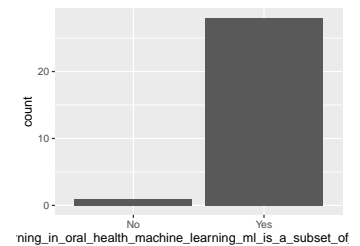## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	21 (72.41 %)
Number of unique values	8
Mode	""Any technology that aims to advance the delivery, payment, and consumption of consumer care" This definition also refers to e.g. Uber eats as it doesn't include the aspect Health."

- Observed factor levels: ""Any technology that aims to advance the delivery, payment, and consumption of consumer care" This definition also refers to e.g. Uber eats as it doesn't include the aspect Health.", "Add examples or types of technologies to visualize the definition.", "Health technology "Promote the safety, quality and adequacy of blood and blood products, and the selection of appropriate and cost-effective diagnostic and therapeutic procedures which are essential for the provision of healthcare" Reference https://web.archive.org/web/20040825074541/http://www.who.int/technology//", "Healthtech is not fintech! even storm3 knows that just look at storm2 ;) if the technology uses claims data to advance payment its a fintech. if it uses the data to advance care (going up the patient journey) it can be considered a healthtech. Healthtech can be distinguished to other industries like Biotech, Medtech, Fintech or Insurtech. the definition of healthtech is very similar to that of digital health however in this term enabler technologies play a more pronounced role than in the term digital health", "I would add management of health systems and services", "Perhaps include some examples? Medical devices Diagnostic tools, Digital health solutions: such as electronic health records, telemedicine, and mHealth apps?", "Seems incomplete Should include terms like - patient experience, PROMS related text, care efficiency, quality , time and cost reduction", "Too broad. It could be more focussed on digital health technology".

health_information_and_communication_technologies_or_health_information_system_a_set_of_
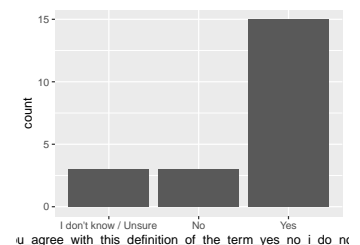
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
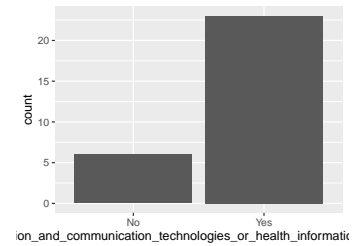
- Observed factor levels: "No", "Yes".

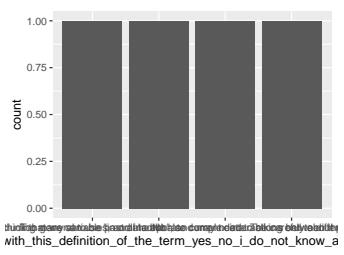## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_45

- The variable only takes one (non-missing) value: "Yes". The variable contains 31.03 % missing observations.

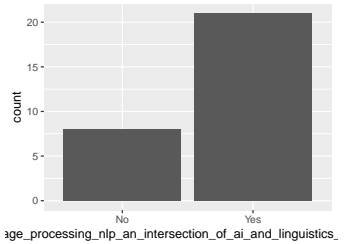## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"def 1."
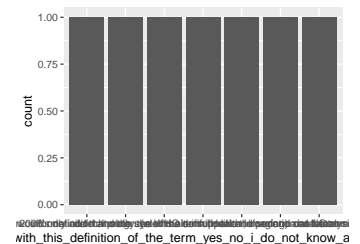
- Observed factor levels: "def 1.", "I prefer the Office Quebec de la langue française 2008's definition and the use of the term "Health Information and Communication Technologies"", "I prefer the WHO definition.", "I would choose the first definition along with the last section of the second definition. information technology (electronic information, imaging) and telecommunication (interactive audio, video, data communications, store, and forward technologies)", "I would only add that such systems also support and perform data analysis and dissemination of info", "like the second one better", "No.".

---

internet_of_things_a_system_of_interrelated_computing_devices_mechanical_and_digital_mac
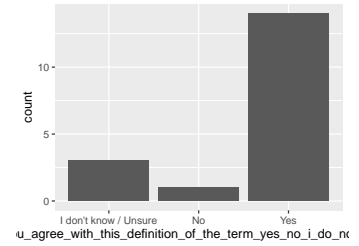
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---
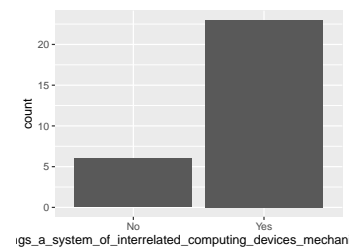
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_48

Feature	Result
Variable type	character
Number of missing obs.	9 (31.03 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	24 (82.76 %)
Number of unique values	5
Mode	"I believe there are medical internet of things (mIoT) and dental internet of things (dIoT), though may not be very well developed yet"
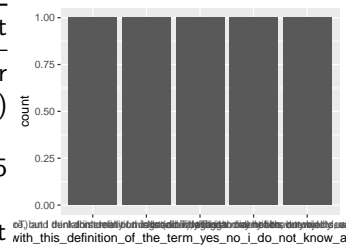
- Observed factor levels: "I believe there are medical internet of things (mIoT) and dental internet of things (dIoT), though may not be very well developed yet", "I don't really understand what it is.", "I'm not sure, but I think this definition is broad in regard to "identifiers on objects, animals, or people."", "IoT is an overly broad term", "Not directly digital oral health, but widely used and should be included".

---

machine_learning_in_oral_health_machine_learning_ml_is_a_subset_of_artificial_intelligen

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

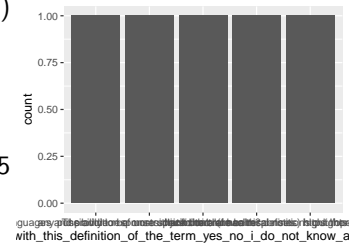## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_51

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

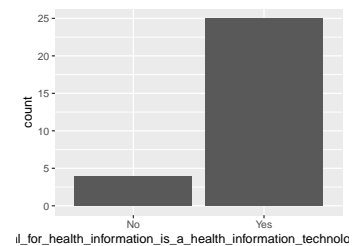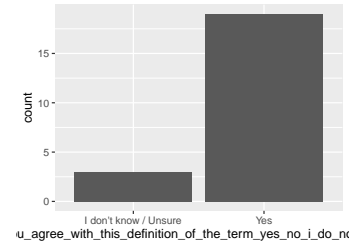| Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"ML is able to handle multidimensional data, including many variables, and incorporate complex interactions between these variable"

- Observed factor levels: "ML is able to handle multidimensional data, including many variables, and incorporate complex interactions between these variable", "No", "Not completely. I think that we can use past data but also current data. Talking only about past data presents the process as frozen.", "Too general to be "in oral health", and may need to be careful to differentiate AI, Machine Learning and Deep Learning".

m_oral_health_the_use_of_mobile_and_wireless_technologies_such_as_mobile_phones_tablet_c

- The variable only takes one (non-missing) value: "Yes". The variable contains 0 % missing observations.

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_54

- The variable only takes one (non-missing) value: "Yes". The variable contains 6.9 % missing observations.

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	27 (93.1 %)
Number of unique values	2
Mode	"Mobile technologies include wireless technologies, isn't it?"
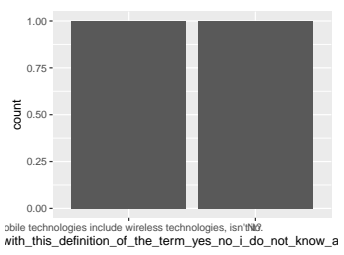
- Observed factor levels: "Mobile technologies include wireless technologies, isn't it?", "No.".

natural_language_processing_nlp_an_intersection_of_ai_and_linguistics_that_refers_to_com

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_57

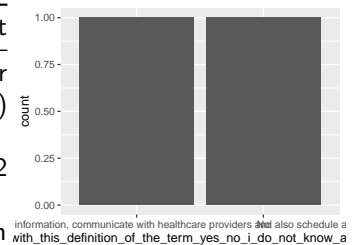| Feature	Result
Variable type	character
Number of missing obs.	11 (37.93 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

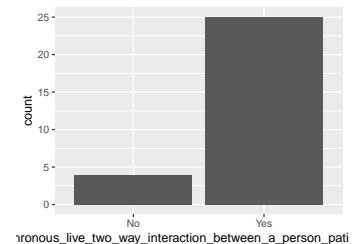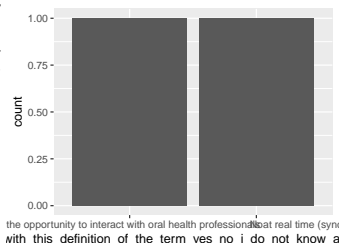## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	24 (82.76 %)
Number of unique values	5
Mode	"An intersection of AI and linguistics that refers to computer systems that analyse, understand, or produce one or more human languages and provide responses that mimic human responses. https://openai.com/blog/chatgpt/ https://www.techtarget.com/searchenterpriseai/definition/Turing-test"

- Observed factor levels: "An intersection of AI and linguistics that refers to computer systems that analyse, understand, or produce one or more human languages and provide responses that mimic human responses. https://openai.com/blog/chatgpt/ https://www.techtarget.com/searchenterpriseai/definition/Turing-test/", "any possibility to be more specific to oral health?", "I just don't know.", "i think there are better definitions out there", "The addition of unstructured data (f.e. clinical notes) highlights the type of data where NLP is mostly applied.".

patient_portal_for_health_information_is_a_health_information_technology_tool_that_is_pr

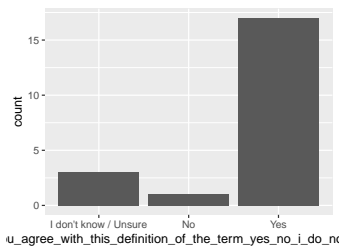| Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_60

Feature	Result
Variable type	character
Number of missing obs.	7 (24.14 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	27 (93.1 %)
Number of unique values	2
Mode	"access AND interact eg upload information, communicate with healthcare providers and also schedule appointments"

- Observed factor levels: "access AND interact eg upload information, communicate with healthcare providers and also schedule appointments", "No".

---

real_time_synchronous_live_two_way_interaction_between_a_person_patient_caregiver_or_pro

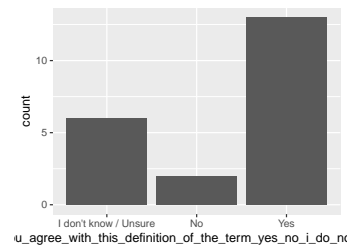| Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_63

- The variable only takes one (non-missing) value: "Yes". The variable contains 24.14 % missing observations.

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	27 (93.1 %)
Number of unique values	2
Mode	"Life consultation provides people with the opportunity to interact with oral health professionals at real time (synchronous modality)."

- Observed factor levels: "Life consultation provides people with the opportunity to interact with oral health professionals at real time (synchronous modality).", "No".

robotics_or_robotics_for_healthcare_systems_able_to_perform_coordinated_mechatronic_acti

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
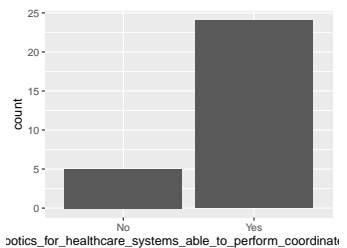
- Observed factor levels: "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_66

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"Because the focus is oral health, maybe use the term dentronics instead of robotics."
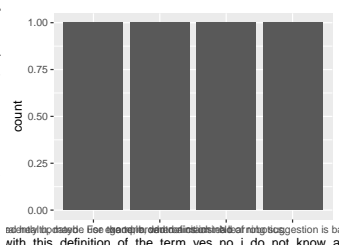
- Observed factor levels: "Because the focus is oral health, maybe use the term dentronics instead of robotics.", "good, broad definition", "No", "Real-time can ideed be viewed as 'live' interaction, but also induces the most recently updated . For example, when a machine learning suggestion is based on the most recent data of today. It is adapting to the latest information, but doesn't necessarily need face-to-face interaction.".

---

serious_games_gamification_serious_games_is_the_computer_application_for_which_the_origi

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---
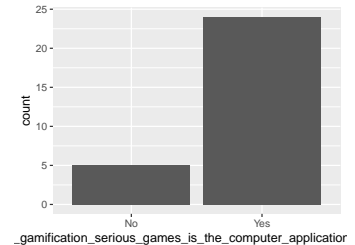
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_69

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

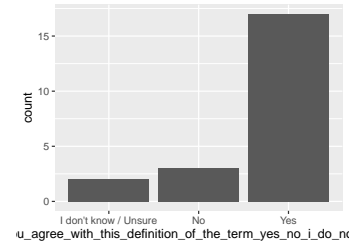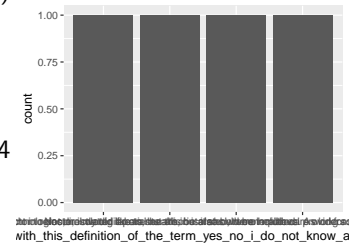| Feature	Result
Variable type	character
Number of missing obs.	21 (72.41 %)
Number of unique values	8
Mode	"Gamification is the process of using game design elements and mechanics in non-game contexts to engage and motivate people to achieve their goals."
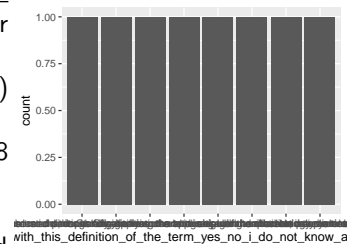
- Observed factor levels: "Gamification is the process of using game design elements and mechanics in non-game contexts to engage and motivate people to achieve their goals.", "I also suggest checking this book, Actionable Gamification, by Yu-Kai Chou, a pioneer in this field, analyzing over 90 examples of gamification from different industries. He defined the term as "the craft of deriving fun and engaging elements found typically in games and thoughtfully applying them to real-world or productive activities. A process called"Human-Focused Design." optimizes for human motivation in a system instead of optimizing for pure functional efficiency within the system." I highly suggest checking his gamification framework as well, Octalysis.", "I believe more elaborations, especially in

terms of relationship with healthcare, may be needed", "I do agree with the first part, but I do not agree with the second part: Gamification is "the application of the characteristics and benefits of games to real-world processes or problems".", "I understand gamification and agree. I don't understand the serious Games", "maybe keep the term singular gamification is a more common term.", "No", "Please split the two definitions.Gamification can and is used in non technology systems. The definition above actually is divided into two. They are not synonyms.".

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store_and_forward_asynchronous_transmission_of_recorded_health_information_for_example_r

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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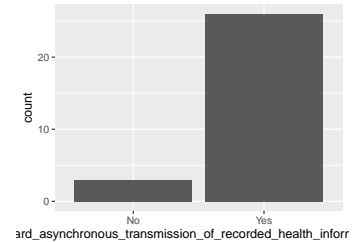
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_72

- The variable only takes one (non-missing) value: "Yes". The variable contains 20.69 % missing observations.

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	26 (89.66 %)
Number of unique values	3
Mode	"Great definition! covers all the necessary components, including security."
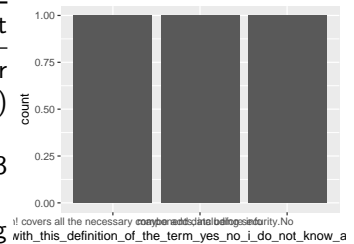
- Observed factor levels: "Great definition! covers all the necessary components, including security.", "maybe add data before info", "No".

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tele_assistance_tele_support_support_to_remote_health_facilities_located_in_isolated_are
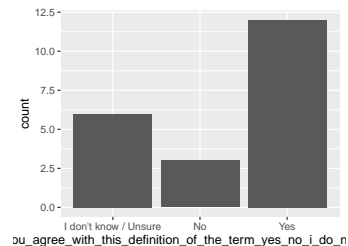
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
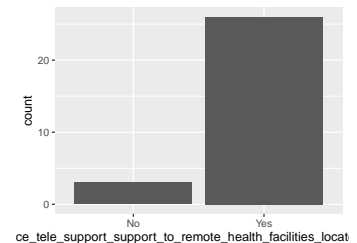
- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_75

Feature	Result
Variable type	character
Number of missing obs.	7 (24.14 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

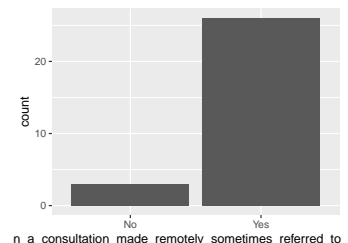## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"I believe that teh term"Tele-assistance" should apply to al situations where patients and health care professionals interact by means of digital technologies, no matter if patients are in isolated, remote places. As long as they are not in the same geographical place, I think that should be considered Tele-assistance / tele-support"

- Observed factor levels: "I believe that teh term "Tele-assistance" should apply to al situations where patients and health care professionals interact by means of digital technologies, no matter if patients are in isolated, remote places. As long as they are not in the same geographical place, I think that should be considered Tele-assistance / tele-support", "Not directly digital oral health, but it should be included", "Tele-assistance is not only important in remote, isolated areas, but also in areas where health care workforce is scare (for example, lack of specialized care providers)", "This can be between more than just doctor to doctor. I would like to see this be also between midlevel providers and medical assistants. This does not expand their scope, but rather help with regular tasks.".

---

telecare_systems_and_services_capable_of_social_alert_and_social_services_e_g_to_to_moni

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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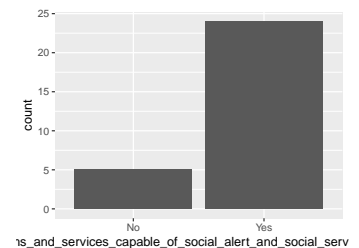
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_78

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	20 (68.97 %)
Number of unique values	9
Mode	"Agree, but you can also add the types for more clarification, such as monitoring sensors and so on."
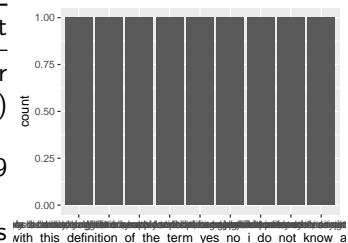
- Observed factor levels: "Agree, but you can also add the types for more clarification, such as monitoring sensors and so on.", "elderly is a derogatory term also, telecare is not restricted to such scenarios and it is useful in many other circumstances", "I am not sure whether this may apply to dentistry. What may apply to "tele" comes after this item: teledentistry for example....", "I would suggest to use older people as opposed to elderly", "maybe add in elements of "remote" and "no need physical presence", something like that", "No", "Telecare refers to the use of technology to support and care for individuals who are living at home, but who may require assistance due to a disability, long-term health condition, or aging. Telecare services typically involve the use of remote monitoring equipment and digital communication devices to enable individuals to live independently, while still receiving the support they need.", "this may also be referred to as virtual care ?", "This seems to be similar to remote patient monitoring. I'd like to see that term included in this list.".

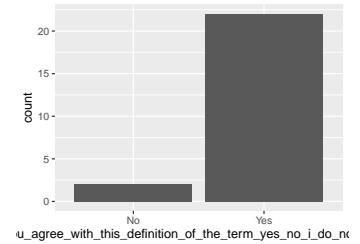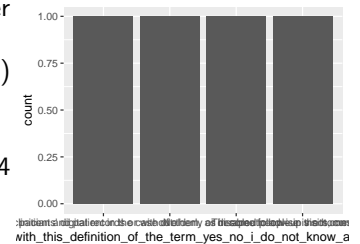## tele_consultation_a_consultation_made_remotely_sometimes_referred_to_as_remote_consultat

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_81

Feature	Result
Variable type	character
Number of missing obs.	5 (17.24 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

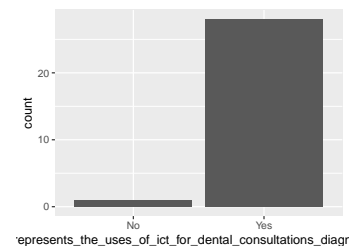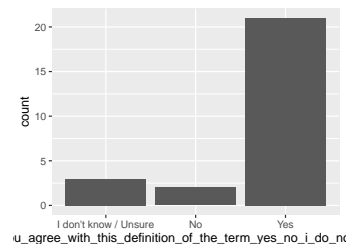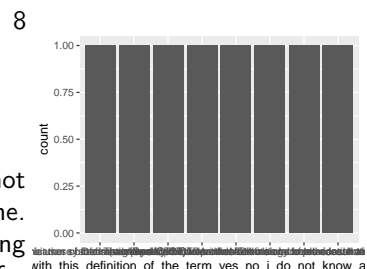## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"I suggest adding that the consultation can be based on transmitted patients' digital records or without them, as in some follow-up visits, consulting about certain symptoms."

- Observed factor levels: "I suggest adding that the consultation can be based on transmitted patients' digital records or without them, as in some follow-up visits, consulting about certain symptoms.", "No", "Not only between clinician and patient in the case of elderly or disabled people in the home setting, where a third person is necessary", "Therapeutic advise is not consultation...".

---

teledentistry_represents_the_uses_of_ict_for_dental_consultations_diagnosis_and_treatmen

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_84

Feature	Result
Variable type	character
Number of missing obs.	3 (10.34 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	21 (72.41 %)
Number of unique values	8
Mode	"add examples of what type of clinical information and images (e.g.,..) Why not adding prevention and follow up as well as in the definition of telemedicine. Teledentistry has a major role in public health such as providing preventive screening in school-based programs. Also following up and monitoring the symptoms for patients in a TMD or a surgery clinics (and further examples existed!) Add the term for the ICT: Information and Communications Technology Suggested definition:"Teledentistry Represents the uses of Information and Communications Technology to provide dental care services between an oral health professional and patient or between two health professionals, including at least one oral health professional, who are separated by distance. It involved the secure transmission of clinical information, and images, through text, interactive audio, video, or other forms needed for dental prevention, consultations, diagnosis, treatment planning and follow-up of patients (WHO 2021 & Commission of the European Communities 2008)."

- Observed factor levels: "add examples of what type of clinical information and images (e.g.,..) Why not adding prevention and follow up as well as in the definition of telemedicine. Teledentistry has a major role in public health such as providing preventive screening in school-based programs. Also following up and monitoring the symptoms for patients in a TMD or a surgery clinics (and further examples existed!) Add the term for the ICT: Information and Communications Technology Suggested definition: "Teledentistry Represents the uses of Information and Communications Technology to provide dental care services between an oral health professional and patient or between two health professionals, including at least one oral health professional, who are separated by distance. It involved the secure transmission of clinical information, and images, through text, interactive audio, video, or other forms needed for dental prevention, consultations, diagnosis, treatment planning and follow-up of patients (WHO 2021 & Commission of the European Communities 2008).", "Define acronyms (ICT)", "e.g precedent comment", "It is a bit more broad as defined by the ADA. the ADA also includes education in this.", "No", "Spell out ICT as information and communication technology", "Teledentistry is the usage of telecommunication systems (same

as ICT??) to provide remote oral healthcare. It also includes screening, therapeutic oral health interventions, and oral health prevention.", "The difference between these definitions of teleconsultation and teledentistry does not emerge clearly.".

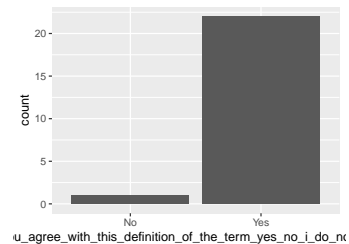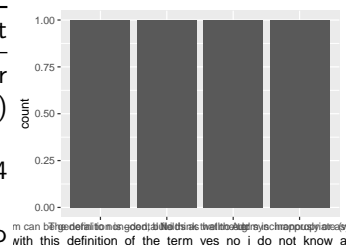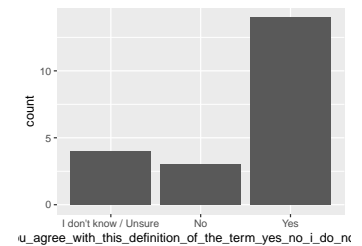## tele_diagnosis_the_use_of_information_and_communication_technology_to_establish_a_diagno

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
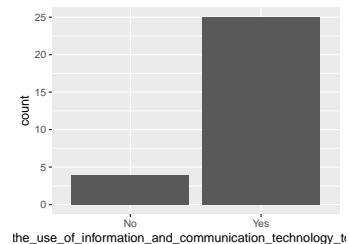
- Observed factor levels: "No", "Yes".

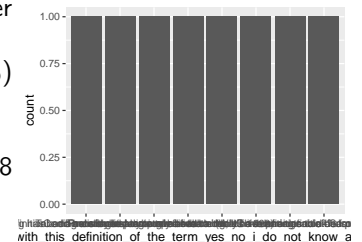## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_87

Feature	Result
Variable type	character
Number of missing obs.	6 (20.69 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"Add"a subset of teledentistry," or maybe this term can be general to non-dental fields as well. Add synchronously or asynchronously."

- Observed factor levels: "Add "a subset of teledentistry," or maybe this term can be general to non-dental fields as well. Add synchronously or asynchronously.", "No", "no e.g", "The definition is good, but i think that the term is inappropriate (with reference to the definition of a diagnosis)".

---

tele_education_or_e_learning_a_process_by_which_change_can_be_catalysed_in_attitudes_kno

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

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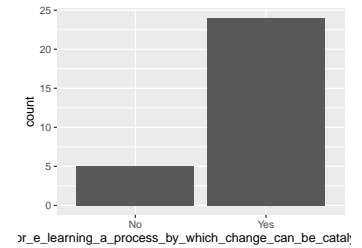
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_90

Feature	Result
Variable type	character
Number of missing obs.	8 (27.59 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

---

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	21 (72.41 %)
Number of unique values	8
Mode	"Both definitions fulfill the meaning of these terms. Yet, for the WHO definition: add a distinguishing word for the term, as e-learning could be for any field rather than health."

- Observed factor levels: "Both definitions fulfill the meaning of these terms. Yet, for the WHO definition: add a distinguishing word for the term, as e-learning could be for any field rather than health.", "Combine with "e-learning" above", "e-learning has been mentioned previously - we can only have one definition?", "edit: . . . improved health. (WHO 1998)", "No", "Probably separate tele health education to patients to e-learning for professionals", "Tele diagnosis need to be specified to 'tele'. This definition could also describe e-diagnosis (broader than tele).", "There is already a term e-learning. It's interchangeable? So please change the above definition (e-learning) too".

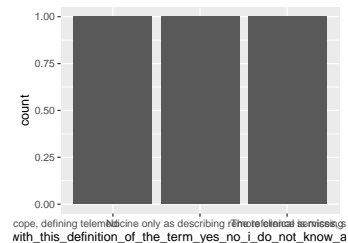## telehealth_a_collection_of_electronic_and_telecommunications_technologies_and_services_t

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
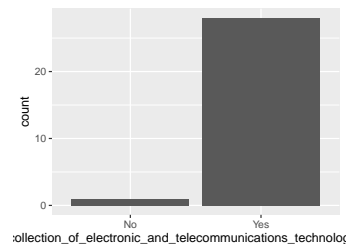
- Observed factor levels: "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_93

Feature	Result
Variable type	character
Number of missing obs.	3 (10.34 %)
Number of unique values	2
Mode	"Yes"
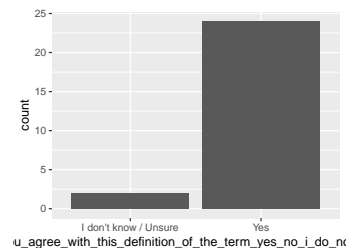
- Observed factor levels: "I don't know / Unsure", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	26 (89.66 %)
Number of unique values	3
Mode	"No"

- Observed factor levels: "No", "The Health Resources and Services Administration distinguishes telehealth from telemedicine in its scope, defining telemedicine only as describing remote clinical services, such as diagnosis and monitoring, while telehealth includes preventative, promotive, and curative care delivery.", "The reference is missing".

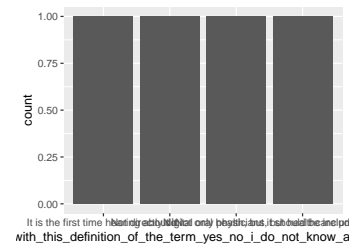## tele_intervention_a_therapeutic_medical_act_which_is_performed_remotely_by_a_physician_o
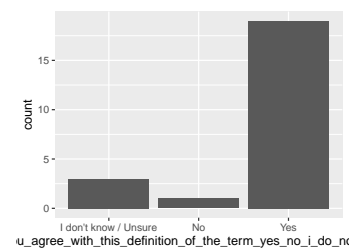
Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
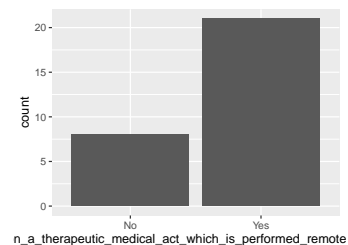
- Observed factor levels: "No", "Yes".

do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_96

| Feature	Result
Variable type	character
Number of missing obs.	10 (34.48 %)
Number of unique values	3
Mode	"Yes"
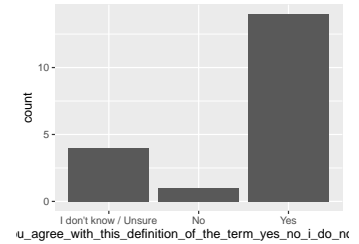
- Observed factor levels: "I don't know / Unsure", "No", "Yes".

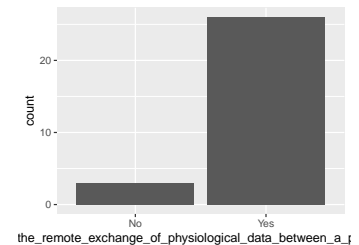## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"It is the first time hearing about it."

- Observed factor levels: "It is the first time hearing about it.", "No", "Not directly digital oral health, but it should be included", "Not only physicians, but healthcare providers in general".

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tele_medicine_telemedicine_is_the_provision_of_health_care_services_through_the_use_of_i

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

---
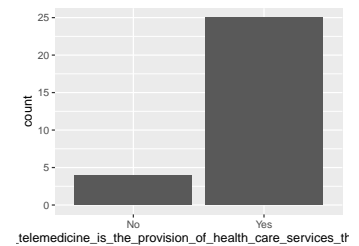
do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_99

Feature	Result
Variable type	character
Number of missing obs.	6 (20.69 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	25 (86.21 %)
Number of unique values	4
Mode	"Add: umbrella term of teledentistry. The Health Resources and Services Administration distinguishes telehealth from telemedicine in its scope, defining telemedicine only as describing remote clinical services, such as diagnosis and monitoring, while telehealth includes preventative, promotive, and curative care delivery."
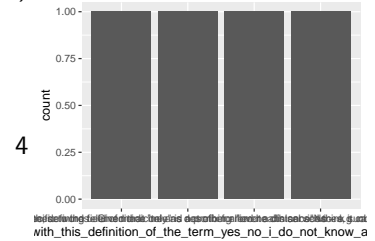
- Observed factor levels: "Add: umbrella term of teledentistry. The Health Resources and Services Administration distinguishes telehealth from telemedicine in its scope, defining telemedicine only as describing remote clinical services, such as diagnosis and monitoring, while telehealth includes preventative, promotive, and curative care delivery.", "I don't believe it's necessary to hyphenate any of these words. Given that "tele" is a prefix for "over a distance" I think it can be added to any word without the hyphen.", "is telemedicine specific to the field of medicine and not other allied health services - e.g. nursing. dentistry, pharmacy, physiotherapy.", "No".

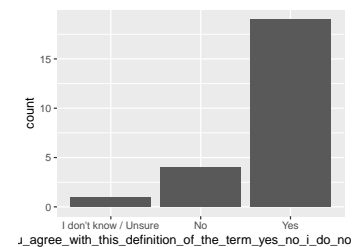## tele_monitoring_the_remote_exchange_of_physiological_data_between_a_patient_at_home_and

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_102

Feature	Result
Variable type	character
Number of missing obs.	5 (17.24 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

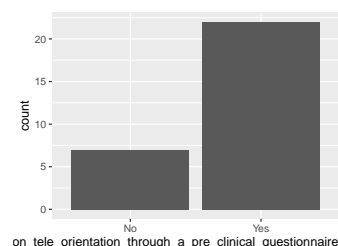| Feature	Result
Variable type	character
Number of missing obs.	18 (62.07 %)
Number of unique values	11
Mode	"-is a part of telemedicine -refers to the monitoring and evaluation of health parameters remotely - can be used during treatment but also for prevention and aftercare - still there is a difference between monitoring and screening also in telemedicine"
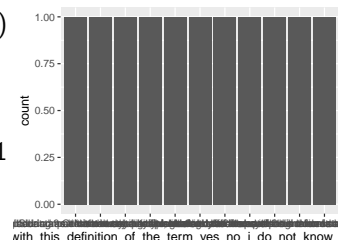
- Observed factor levels: "-is a part of telemedicine -refers to the monitoring and evaluation of health parameters remotely - can be used during treatment but also for prevention and aftercare - still there is a difference between monitoring and screening also in telemedicine", "Change "physiological data" to "health data" as it isn't always physiological i.e. can be psychological or social.", "could we add ... a patient and or carer at home and medical staff ?", "It is not restricted to medical staff", "No", "Not directly digital oral health, but it should be included", "Not only at a hospital.", "See comment above about hyphenating. I've also seen this referred to as remote patient monitoring.", "should it be physiological data? Or can we say health -related data? It can also be information about someone's behaviour, isn't? Brushing data for example.", "This is also called remote patient monitoring in things I have read.", "Yet make it broad, health staff instead of the medical staff?! because I see dentists as well in this context.".

## tele_orientation_tele_orientation_through_a_pre_clinical_questionnaire_to_determine_the_

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_105

Feature	Result
Variable type	character
Number of missing obs.	10 (34.48 %)
Number of unique values	3
Mode	"Yes"
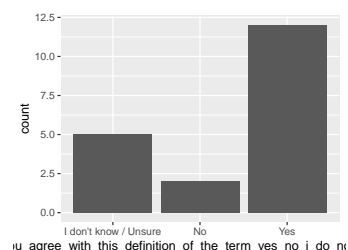
- Observed factor levels: "I don't know / Unsure", "No", "Yes".

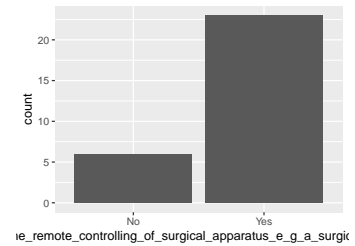## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	22 (75.86 %)
Number of unique values	7
Mode	"First time hearing about it."
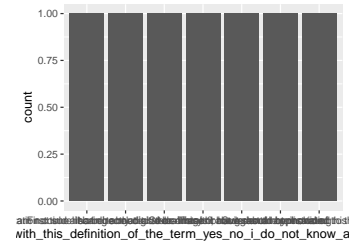
- Observed factor levels: "First time hearing about it.", "It is not very clear. I am not sure it can be related to dentistry or have dental application.", "No", "Not directly digital oral health, but it should be included", "See comment above about hyphenating.", "tele-orientation could also be termed as tele-triage ? Suggest the removal of this term if there are too many terms in the final glossary.", "This is broader and not restricted to the use of questionnaires".

tele_surgery_the_remote_controlling_of_surgical_apparatus_e_g_a_surgical_robot_by_an_exp

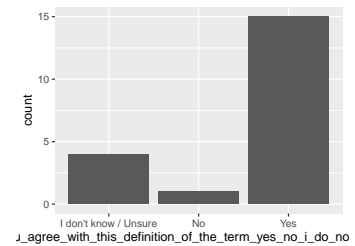| Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_108

Feature	Result
Variable type	character
Number of missing obs.	9 (31.03 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

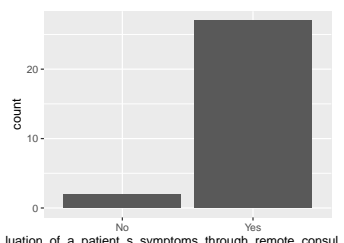## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	24 (82.76 %)
Number of unique values	5
Mode	"confirming that the tele-surgery is a subset of tele-intervention but also performed by a medical specialist?"
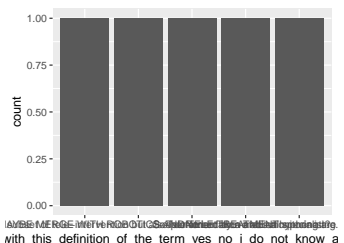
- Observed factor levels: "confirming that the tele-surgery is a subset of tele-intervention but also performed by a medical specialist?", "MAYBE MERGE WITH ROBOTICS AND TELE TREATMENT", "No", "See comment above about hyphenating.", "Tele-orientation and -monitoring are not specific enough.".

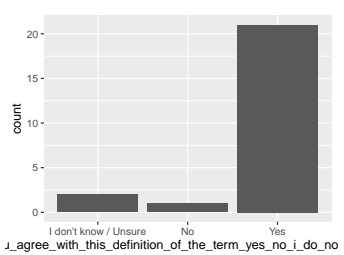## tele_triage_evaluation_of_a_patient_s_symptoms_through_remote_consultation_using_informa

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_111

Feature	Result
Variable type	character
Number of missing obs.	5 (17.24 %)
Number of unique values	3
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "No", "Yes".

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do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

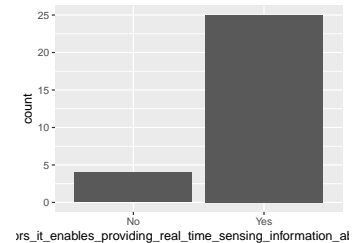| Feature	Result
Variable type	character
Number of missing obs.	24 (82.76 %)
Number of unique values	5
Mode	"I would add that it is not only used to define urgency, but to establish the need of care in general"
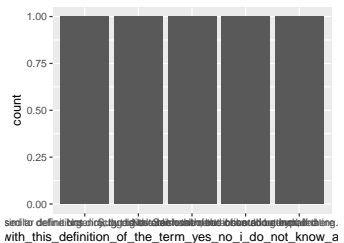
- Observed factor levels: "I would add that it is not only used to define urgency, but to establish the need of care in general", "No", "Not directly digital oral health, but it should be included", "See comment above about hyphenating.", "tele-orientation and tele-triage have similar definitions. Suggest the removal of the orientation term, if there are too many terms in the final glossary. OR there is a need to clearly differentiate the terms.".

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wearable_sensors_it_enables_providing_real_time_sensing_information_about_the_wearer_and

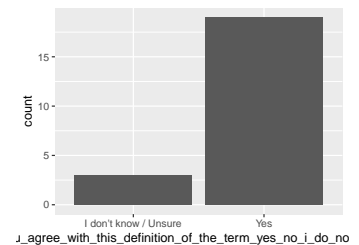| Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_114

Feature	Result
Variable type	character
Number of missing obs.	7 (24.14 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "I don't know / Unsure", "Yes".

## do_you_agree_with_this_definition_of_the_term_yes_no_i_do_not_know_any_additional_comm

Feature	Result
Variable type	character
Number of missing obs.	23 (79.31 %)
Number of unique values	6
Mode	"I think motion should also be added in addition to the physiological and biochemical profiles, also audio data may be relevant"
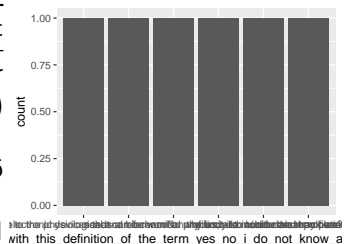
- Observed factor levels: "I think motion should also be added in addition to the physiological and biochemical profiles, also audio data may be relevant", "needs a reference?", "No", "Wearable sensors are electronic devices that can be worn on the body to monitor and track various physiological and environmental data.", "why limit it to biochemical profiles?", "you could include the term patient generated data".

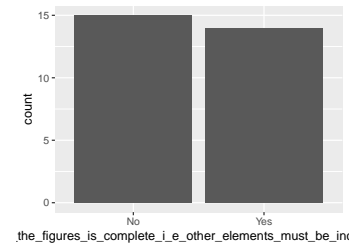## about_the_figures_is_complete_i_e_other_elements_must_be_included_fig_1

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"
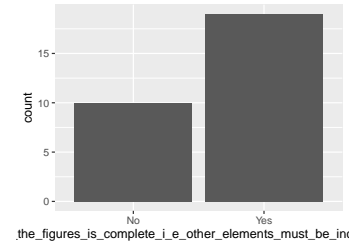
- Observed factor levels: "No", "Yes".

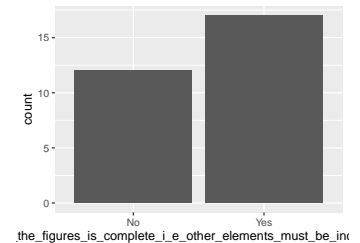## about_the_figures_is_complete_i_e_other_elements_must_be_included_fig_2

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"No"

- Observed factor levels: "No", "Yes".

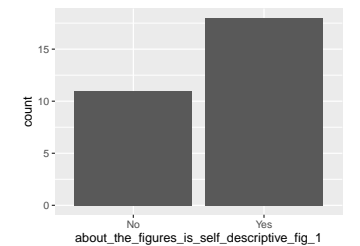## about_the_figures_is_complete_i_e_other_elements_must_be_included_fig_3

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

about_the_figures_is_self_descriptive_fig_1

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".
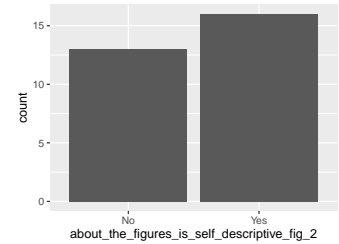
about_the_figures_is_self_descriptive_fig_2

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

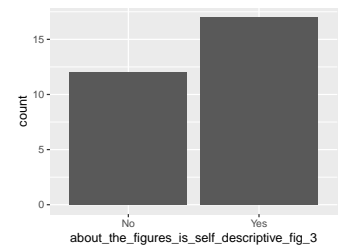## about_the_figures_is_self_descriptive_fig_3

Feature	Result
Variable type	character
Number of missing obs.	0 (0 %)
Number of unique values	2
Mode	"Yes"

- Observed factor levels: "No", "Yes".

Report generation information:

- Created by: Sergio Uribe (username: sergiouribe).

- Report creation time: Thu Feb 01 2024 12:18:23

- Report was run from directory: /home/sergiouribe/Dropbox/Public/Practico R/leseras_varias

- dataMaid v1.4.1 [Pkg: 2021-10-08 from CRAN (R 4.1.2)]

- R version 4.1.2 (2021-11-01).

- Platform: x86_64-pc-linux-gnu (64-bit)(Pop!_OS 22.04 LTS).

- Function call: dataMaid::makeDataReport(data = df, mode = c("summarize", "visualize", "check"), smartNum = FALSE, file = "codebook_df.Rmd", checks = list(character = "showAllFactorLevels", factor = "showAllFactorLevels", labelled = "showAllFactorLevels", haven_labelled = "showAllFactorLevels", numeric = NULL, integer = NULL, logical = NULL, Date = NULL), listChecks = FALSE, maxProbVals = Inf, codebook = TRUE, reportTitle = "Codebook for df")