

A Comparative Discourse Analysis of Medical Associations and Research Articles Through Van Dijk Microstructure Model

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ABSTRACT

The current study investigates the linguistic gap between discourses of medical associations and research journals through Van Dijk's Model of critical discourse analysis. This will help to understand how language patterns are structured and visuals are constructed to convey the required message. The data analysis method that has been adopted in this study is the Van Dijk's microstructure approach of discourse analysis. The data has been collected from well-known medical journals and association directories. Five research articles and four directories recommendations are taken from 2015 to 2020 on colorectal cancer. A qualitative approach has been used in the data analysis. The findings of the study revealed that certain choices of words, phrases, clauses, sentences, and rhetorical devices have been used in medical discourse to propagate certain ideologies and hidden agendas and divert public attention towards certain dietary brands, medicines, and surgeries. Moreover, the medical discourse has tried to impose a great impact of their hidden ideologies and agendas on public minds. This study is not only useful for readers to understand structural differences between medical journals and associations recommendations but also will help them to understand hidden purposes of associations and research journals.

KEYWORDS

discourse analysis, CDA, microstructure, Medical recommendations, associations

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INTRODUCTION

According to van Dijk, Critical Discourse Analysis deals with studying and examining spoken and written texts to disclose the discursive practices of power, dominance, disparity, and predisposition. It analyzes how these digressive sources are kept up with and duplicated inside unambiguous social, political, and authentic settings (Schiffrin and Tannen P. 352). Medical associations and medical research journals generally used discursive practices of power and dominance for imposing their required message or hidden ideologies. Discourse plays a crucial role in the field of medicine and the medical industry. In the field of medicine, there is a huge linguistic gap that is created by different stakeholders to implement their ideologies.

Our speech, gestures, and other actions make interactional meanings especially in the medical discourse. Furthermore, patient-doctor interaction is very important and our posture gestures play a significant role to convey the complete meanings to others. The purpose of this study is to explore the use of language imposed by different pharmaceutical companies, doctors and stakeholders. Apart from this, it has been also revealed that these stakeholders used certain word phrases and rhetorical devices to impose their agendas. To find out the linguistic gap between medical associations and research articles the researcher has collected the data from five medical research articles, four well-known association directories recommendations from 2015 to 2020 on colorectal cancer disease.

Colorectal cancer is a dietary disease. Colorectal cancer starts either in the colon or in the rectum. Therefore, these cancers may also be called colon cancer or rectal cancer, depending on which may affect them. Most colorectal cancers start as a growth on the lining of the colon or rectum. This growth is called polyps. Though, it can happen at any age but mostly affects older adults. Abdominal pain, cramps, constipation, diarrhea, and blood in stools may be symptoms of colorectal cancer, the chances of it can be reduced by changing lifestyle like, eating a variety of fruit, vegetables, and whole grains, exercise at least 30 mint, maintaining a healthy weight, stop smoking and be prevented by taking Aspirin or other Non-steroidal anti-inflammatory drugs (NSAIDS). The researcher has not gone into colorectal disease details because the medical field is quite a scientific field. The researcher only analyzed the text from the perspective of critical discourse analysis, and he has applied the microstructure model of van Dijk. Medical companies and medical associations and stakeholders used certain kinds of words, sentences, brand names of dairy items used to convey their ideologies and divert the general public mind towards specific brands and medicines.

This study makes a major contribution to research on medical discourse by demonstrating the van Dijk CDA model. This study has a high significance in critical discourse analysis because no one has yet applied critical discourse analysis van



Dijk's model on the discourse of medical. The review has high instructive importance and opens another skyline for analysts in the field of clinical science and language.

Aim of the Study

The objectives of this research are to determine whether medical associations and medical research journals' recommendations are imposed with different hidden agendas on medical issues to get the desired purposes or not.

Problem statement

The problem statement of this study is to identify language gaps between medical research journal recommendations and medical association recommendations through a critical discourse analysis model at the microstructure level.

Research questions

1. How discourse is manipulated in medical associations and research articles?
2. What are the linguistic gaps between medical associations and research articles at semantic level?
3. What are the linguistic gaps between medical associations and research articles at the syntax level?
4. What are the linguistic gaps between medical associations and research articles at the lexical level?
5. What are the linguistic gaps between medical associations and research articles at the Rhetorical level?

2. REVIEW OF RELEVANT LITERATURE

2.1 Language and Society

A language is a tool of communication between individuals and society. Language always represents society we identify different factors of society through language like class, gender power, race, etc. Zia (2014) explained the effects of the Pakistani TV channel's drams on society, especially on the young generation. The researcher has revealed the ideologies imposed by PTV dramas. People watch movies and dramas for enjoyment. PTV dramas were produced for the public interest, but the new generation has been attracted to romantic love and emotions. The researcher concluded that mostly these drams created frustration and hopelessness in the young generation.

Shabir et al. (2013) narrated the impact of Hum TV and GEO TV drams on the Pakistani women of Bahawalpur. Researchers point out that Hum TV culture is closer to Pakistani norms and social values than geo TV dramas. Geo TV does not represent the cultural norms of Pakistani culture. This study draws a great impact on the modernization of women and plays a fundamental role in women's education.

Marnia et al. (2017) highlighted that critical discourse explained the concept of power and identity that represents in popular discourse's production. The Van Dijk model microstructure used in the "Full day School" discourse in which shows that elites use text to influence public opinion. Moreover, the text elements used include vocabulary, metaphor, background, and coherence. The analysis of "Full day School" indicates the manufacturing of discourse of elite that conducts the public perception. Firstly, this policy design is perceived as a procedure for distinguishing students. Secondly, the perceived policy left an impact on the local society. However, in the context of social cognition manifestation, the policy design of discourse is greatly under influence of bureaucracy. These studies clearly show that language represents society instead of society.

2.1.1 Language and discourse

Language and discourse have a strong relationship and no one can understand language in depth without the understanding of discourse. This is why discourse analysis can see as a system of language at sentence structure, context, ideology, identity, power, social wrongs and discursive analysis level. People constructed different meanings through language and discourse so let's see how language and discourse work side by side.

Song (2010) figures out the actual role of context in discourse analysis he said that context plays a very important role in discourse analysis and they have a strong relationship between discourse and context the discourse explains its context and the context explains the meanings of the text in discourse. Whenever we analyzed any study we cannot ignore the related context.

Abduramanova and Rasulmetova (2020) stated that language and culture remain firmly associated in various areas of the rational and realistic presence of society. Every country has its own language as an identity. Only due to language, humans can pass on their duties, customs, and social norms from one era to another. Language is just not reflecting the real-world situation of a person or actual conditions of his life rather it additionally influences social issues of individuals like their practices, customs, mentalities, public and lifestyle, and viewpoint of the world.

Qin Sie (2018) expressed that discourse is one of the basic tools to examine the real talk that goes beyond the sentence. Individuals can realize the feelings suggested by the creator and understand what is going on the occasions depicted in the basic discussion. Besides, it is advantageous for the public to lay out the basic attention to News talk and improve the capacity to fundamentally examine news talk. The researcher focuses on understanding the real information beyond the sentence structure.

Ijaz et al. (2021) revealed the western ideologies through a multidimensional discourse analysis model. Apart from this, researcher highlighted the textual and visual elements of drama and revealed that drama producers used all the necessary measures to promote western Indian culture like dialogues, actors dressing, the camera, the intensity of light, etc. According to

researchers, this study has great significance for Pakistani researchers, students, and teachers, for understanding hidden ideologies.

Shah et al. (2018) narrated the hidden ideologies of newspaper editors who used certain elements of language vocabulary to convey their purposeful message. The researcher narrated the headline vocabulary that serves as an important medium to highlight particular discourse and promoted the particular ideologies of politicians.

2.1.2 Social wrongs and discursive analysis

Shah et al. (2013) stated that the textbook English language Punjab curriculum for grades was 9th and 10th constructed to promote particular ideologies. The researcher highlighted that in the textbook authors not only describe religious beliefs but also focused on the particular ideology of Zia ul Haq regime which is anti-non-Muslims.

Zia (2014) explained the effects of the Pakistani TV channel's dramas on society especially on the young generation the researcher revealed the ideologies imposed by PTV dramas. People watch movies and dramas for enjoyment PTV dramas were produced for the public interest but, the new generation has been attracted to romantic love and emotions. The researcher concluded that mostly these dramas created frustration and hopelessness in the young generation.

Hassan (2018) identified the media language of the Pakistani news bulletin through critical discourse analysis and highlighted the hidden ideologies that have been constructed through news headlines and their impact on the public. This study concealed that Pakistani news channels are influenced by different schemas of power and sell political agendas, manipulated news stories, and make them unfair and overemphasized.

Gopang and Fraz (2014) applied critical discourse analysis on English and Urdu newspapers of Sindh headlines on the budget 2013-2014. This study pointed out how the newspaper editors used certain kinds of lexical choices and figurative language to pollute public minds against the government. This study shows how different hidden ideologies change public minds through the formation of different choices of words phrases, sentences, etc.

Syukri et al. (2019) analyzed judicial discourse through critical discourse analysis van Dijk model. The researcher tried to examine the actual use of law language and how law discourse works in the spoken, written, and context, through Van Dijk the CDA model. The researcher revealed in this study certain choices of words phrases, sentences, and rhetorical devices that have been used for law.

Language and ideology cannot be isolated from the setting of the context between language and power because the philosophical way of behaving must be seen from the act of force (Fairclough, 1989). Fairclough (1989) contends that power reasonably has two implications: (1) imbalance between members in talk occasions and (2) limit imbalance in controlling a text delivered, circulated, and consumed in a specific social setting in broad daylight talk; the utilization of language means to coordinate and impact public discernment. Discourse is created as something appropriate and sensible.

2.1.2.1 Medical discourse

Discourse analysis plays a very important role in the medical field because health-care system needs to know multiple multidisciplinary fields it is not promoted in any specific direction and perspectives but informs an understanding of the biological, psychological, social, cultural, ethical, and political disciplines. Our speech, gestures, and other actions make interactional meanings especially in the medical discourse furthermore, patient-doctor interaction is very important our posture gestures played a significant role to convey the full meanings to others. The researcher narrated discourse analysis application in the healthcare system. Critical discourse has the power to disclose all the political and social contexts in which different healthcare discourses occur. (Yazdannik et al., 2017)

Pun (2021) emphasized discourse analysis strategies and highlighted the importance of discourse in the medical field. The researcher analyzes final-year medical student communication patterns and how medical students communicate with patients and deliver bad news. This study was conducted in a Chinese medical college context and the research used an ethnographic discourse analysis approach. This study reveals that some student's conversations were not sensitive as required but if the students improve their communication skills must implement discourse analysis strategies in their studies.

Huo (2021) revealed the propaganda of face masks and their association with health construction during Covid 19. The researcher points out that face masks are portrayed in medical schools and broadcast book outlets everywhere for awareness of diseases. This study emphasizes face masks for the protection of self and others and medical associations also emerge public minds to face masks for certain purposes.

Wilce (2009) stated that the improvement of communication in the field of medicine is understandable in a specific context, including genres and registers of linguistics and communication ideologies that frame the context. The particular variations of subjects, the familiarity of variance, and the complications tangled the importance of medical discourse. In some cases, the practice of medicine enhances psychotherapy according to the requirements of patients. Medical discourse has its history regarding different genres and registers in different areas that become a part of public culture.

2.2 CDA Models

Kendall & Wickham (2008) frame five stages in utilizing "Foucauldian speech investigation". The initial step is a basic confirmation that talk is a bunch of articulations that are coordinated in an orderly manner. The resulting four stages depend on the distinguishing proof of rules on how those assertions are made; what can be said (composed) and what can't;

how the spaces in which new proclamations can be raised are made; and making rehearses material and verbose simultaneously. In short, CDA needs great speculations of the job of talk in the endorsement also, copy of obstruction and social predominance. More than speculations, which as it were request enlightening or logical adequacy, in any case, CDA which is fruitful, should be viable, in the conclusion, suggestions and the other obstruction should work. These are genuinely troublesome measures. Experiencing the same thing, CDA is a logical practice, yet additionally a logical exploration program. Direction inquiries for outline application, incorporate: Is this a specific text and its type? who delivered this? who will understand it? will everybody equivalently get this text? for what reason was it delivered? in what alternate ways might it at some point have been composed?; what is absent from this message?; how does this message mirror the more extensive society?; What might we at some point do about this text assuming that we cannot help contradicting it?

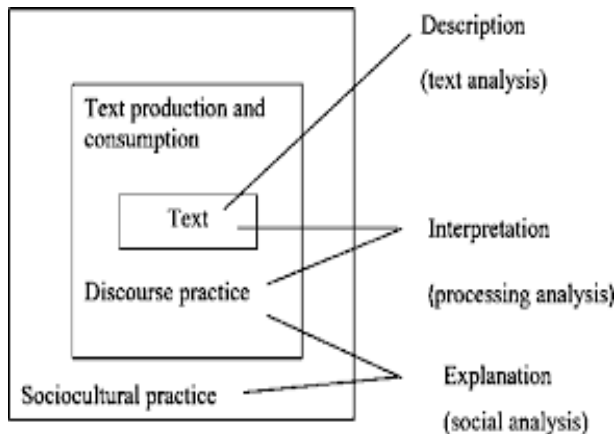


Fig.1: Fairclough 3D multinational model

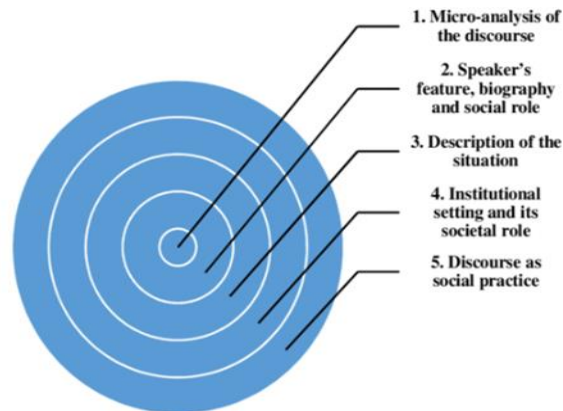


Fig.2: Wodak model of CDA

DISCOURSE STRUCTURE	OBSERVED MATTERS	ELEMENTS
Macrostructure	THEMATIC Theme/topic brought forward in a text	Topic
Superstructure	SCHEMATIC How a part and order of a news are being schemed in an intact news text	Scheme
Microstructure	SEMANTICS Meaning that wants to be emphasised in a news text such as by giving a detail on one side or making an explicit form of one side and reducing other sides.	Background, details
	SYNTAX How a sentence (form, arrangement) is being selected.	Sentence form, coherence, preposition
	STYLISTICA How a word being chosen as a part of news text	Lexicon
	RHETORICS How and in what way an emphasis is conducted.	Graphics, metaphor, expression

Fig.3: Van Dijk model.

Jahedi et al. (2014) state that Fairclough's socio-basic methodology sees talk as a type of cultural activity. Wodak's methodology is connected with the social circle of the community which perspectives talk as a type of information. This multitude of methods featuring in the relationship between language, belief system, and elite people, talk relations. Critical discourse analysis deals with multidisciplinary fields it is not promoted in any specific direction or particular school of thought. Rather, it deals with multidisciplinary fields to offer an alternate "mode" or "point of view" of guessing, investigation, and application throughout the entire field. We may track down a pretty basic point of view in such different regions as pragmatics, discussion examination, account investigation, way of talking, stylistics, sociolinguistics, ethnography, or media examination, among others. (Schiffrin and Tannen P. 352)

Three main CDA models have been developed by the researchers.

1. Fairclough 3D multinational model
2. Wodak model of CDA
3. Van Dijk model.

Fairclough, Wodak, and Van Dijk have some similar points on critical discourse analysis address social problems, Power relations are discursive, and Manipulative creates this structures, and Discourse constitutes society and culture.

All the reviewed studies have shown that critical discourse analysis plays a very important role in creating particular ideologies. All the previous studies answering all the factors that are related to discourse and society, language and discourse, social wrongs, and discourse analysis practices and manipulation have been identified. The researcher has selected for analysis Van Dijk model of critical discourse analysis at microstructure because the researcher aimed to investigate linguistics gaps and background and hidden ideologies. This study has a high significance in critical discourse analysis. Van Dijk’s model of critical discourse analysis application in the medical field discourse is a unique study in the field of social sciences. This study is novel in medical discourse analysis because previous studies never analyzed medical discourse. The framework of Microstructure Discourse Analysis Model van Dijk is adapted from Marnia et al. (2018)

Table 1. The framework of Microstructure Discourse Analysis Model van Dijk

Microstructure	ASPECT OF TEXT	ELEMENT ANALYSIS
	Semantic Background details, explicitly and implicitly are emphasized.	Hidden or background Details
	Syntax Formation of sentences.	Sentence form, Coherence Preposition
	Lexicon How lexical words are used in the text?	Vocabulary
	Rhetorical How emphasis is conducted?	Graphics, simile, and some other devices

3. METHODOLOGY

The research study dealt with the Van Dijk's Model. The researcher has selected a particular theory propounded by the Van Dijk model (CDA) critical discourse analysis. The data was collected randomly from 5 medical research articles on dietary disease selected from the well-known journals from 2015 to 2020. Similarly, five selected associations’ data was collected on colorectal cancer. Van Dijk’s model microstructure has been used to investigate the gaps between medical associations’ discourse and research journals’ discourse. A qualitative approach has been used in the data analysis. At the first point, the researcher collected ten relevant medical research articles from Google scholar on colorectal dietary disease. Then, downloaded all the relevant articles on dietary disease. After the downloading process, the researcher collected recommendations from four well-known associations on the same disease. The association’s names mentioned as National Cancer Institute USA, The American Society Cancer Association, ASCRS (American Society of Colon and Rectal Surgeons, and MAYO CLINIC. As for as analysis is concerned, all the articles have been investigated under the taxonomy of the Van Dijk Model microstructure and compared. Another important thing that is necessary to mention here was the preparation of the microstructure of the van Dijk model, which is retrieved from Marnia at el. (2018) van Dijk’s theoretical approach(microstructure), has investigated the linguistic aspects of medical discourse.

3.1 Data analysis

As for as the data analysis procedure is concerned, the researcher has selected the appropriate framework for the data analysis. The purpose of the researcher was to investigate the content of medical discourse. The researcher took a printout of collected data and analyzed both texts and compare them according to the selected framework (Dijk microstructure model) and revealed all the hidden elements at the microstructure level. All the data have been analyzed under the microstructure taxonomy at the Semantic, lexical, syntax, and rhetorical levels.

4. FINDINGS AND DISCUSSION

Representation of power in the background.

Semantic Level

Background knowledge plays a vital role to understand the submitted information. Background details purpose is to direct the direction of public view. The first question answered that associations used the different names of dietary products as background. Directories that have been sponsored by different pharmaceutical companies and dairy brands; these directories tried to impose different dietary brands like Magnolia: low-fat milk and vitamin drinks like vitamin coffee. These images clearly show background details. ASCRS (American Society of Colon and Rectal Surgeons). This association has recommended colon cancer patients’ chemotherapy or radiation therapy because this association has been funded by American surgeons, this is why, doctors generally influenced colorectal cancer patients’ minds toward surgeries. Doctors and surgeons generally affiliated with associations and certain organizations sold agendas in public and grab their attention toward particular

ideologies. Another major reason is that associations are sponsored by different food or drinks brands and doctors start endorsing brands; it posed a great problem for the common people to understand the precautions or recommendations of diseases because a common man is unfamiliar with these strategies. In contrast, the research paper’s recommendations emphasized a healthy diet and daily bases exercise, these research papers never promoted any agenda. Journals researchers used precise and simple vocabulary in their recommendations. They focused on common items like healthy food items and exercise, etc. Research journals use clear, precise vocabulary; these journals wrote their research for every person who is in the medical field or not. So they tried to use lexical items for everyone. And the second reason is that all the journal writers are not surgeons or they are not associated with any medicine or food brands. Background representative choices of research papers and associations have been shown and in the form of text screenshots and table. All the given screenshots in current study made from the collectively collected data of research articles and medical associations.



Fig.4: Promotion of dairy brand.



Fig.5: Promotion of dietary brand

Table.2 Semantic level

<u>Associations words</u>	<u>Research journals</u>
1. vitamin coffee	1. Daily walk
2. Magnolia	2. Alcohol consumption
3. Vitamin intake	3. Vegetables
4. Endoscopy	4. Increase milk intake
5. Chemotherapy	5. Exercise
6. Radiation therapy	6. Avoid alcohol
7. Colostomy	7. Anti-oxidant
8. NSAID	
9. Aspirin	

Association text

“Surgery to remove the rectal cancer is almost always required Rectal cancer surgery removes the cancer and lymph nodes. Creation of a colostomy (opening the intestine to a bag on the skin) Trained surgeons may use minimally invasive surgical techniques depending on certain features of your cancer. Additional treatment with chemotherapy or radiation therapy may be offered either before or after the surgery, depending on the stage of the cancer” (ASCRS American Society of Colon and Rectal Surgeons)“Limiting your sitting and lying down time may also lower your risk. In recent years, some large studies have shown conflicting evidence that fiber in the diet probably lowers colorectal cancer risk. **Increasing the amount and intensity of your physical activity, vitamin coffee, low fat milk and dietary supplementary may help reduce your risk.**” (American society cancer Association)

Article text

“We found significantly reduced risk of 5-year all-cause mortality among colon and rectal cancer cases with a higher combined lifestyle score. Energy balance factors such as diet, body weight, and physical activity influence colorectal cancer risk and may also impact cancer recurrence and progression..... Only one other study has examined alcohol in relationship to survival among colorectal cancer cases. However, currently there is insufficient evidence to recommend lifestyle changes to cancer survivors specifically for the purpose of improving survival outcomes. At most, these results suggest a possible impact of lifestyle behaviors on cancer survival, and support the need for further prospective research on this topic.” (Pelser et al; 2014)

Lexicon Level:

The choices of lexical words draw a great impact on the construction of any discourse. Different authorities and directories are used as relevant lexical items to deliver their required message. As mentioned below all the lexical words that have been used promoted a specific hidden belief and power. The lexical word or basic words like nouns, verbs, adjectives, and adverbs have been used in the data for relevant concerns.

Noun: represent the name of any person place or thing. For example fiber, polyps, milk, and water.

Verbs: express an action word. For example, avoid, control, intake, etc.

Adjectives: Adjectives modify nouns. Mediterranean diet, alcohol consumption, healthy lifestyle, healthy lifestyle.

Adverb: Adverbs modify verbs, adjectives, and other verbs for example healthy dieting, etc.

Lexicon Level choices of research papers and associations have been shown in the form of text screenshots and table.

Table.3 Lexicon Level:

<u>Lexical items of associations</u>	<u>Lexical items of journals</u>
vegetables, fruits, whole grains vitamin coffee, healthy weight, getting regular physical activity dietary supplementary, drinking tea, green tea, healthy lifestyle, red meat, etc.	Fish, eggs, exercise, grains, milk, diet Mediterranean diet, alcohol fruit, vegetables, nuts, fresh juice, etc. Intake of vitamin c, intake of nitrate

Association text

“Overall, diets that are high in vegetables, fruits, and whole grains, and low in red and processed meats, probably lower colorectal cancer risk, although it’s not exactly clear which factors are important. Many studies have found a link between red meats (beef, pork, and lamb) or processed meats (such as hot dogs, sausage, and lunch meats) and increased colorectal cancer risk. Limiting your sitting and lying down time may also lower your risk... In recent years, some large studies have shown conflicting evidence that fiber in the diet probably lowers colorectal cancer risk. **Increasing the amount and intensity of your physical activity**, vitamin coffee, low fat milk and dietary supplementary **may help reduce your risk.**” (American society cancer Association)

Article text

“The higher intake of total WG products was associated with a significant 15% lower risk of colon cancer, and also a tendency towards lower risk of rectal cancer among men. Small experimental and human intervention studies suggest that in particular WG rye products may hold potential positive effects in relation to colon and rectal cancer prevention that are superior to those of other WG cereals (e.g., WG wheat- Fish, eggs, exercise, grains, milk, diet, fruit, vegetables and oat-based products..... Overall, these data, especially for men, provide further support to the public health message to increase the intake of WG products in gaining optimal health” (Egeberg, R., Olsen, A., Loft, S. et al.)

Syntax Level

From the findings of research Journals and associations, both texts were analyzed according to van Dijk’s model microstructure, at the syntax level. Syntax is defined as “The arrangement of words and phrases to create well-formed sentences in a language” Van Dijk categorized syntax into three parts: 1. Cohesion (Sentence form), 2. Coherence, 3. Prepositions.

A. Cohesion

Use of cohesive devices:

Halliday and Hasan introduced the term lexical cohesion and how different meanings of words develop connections in the text. Cohesive devices work as glue or gum that connects the sentence structure: it is the connectedness of structure. Cohesive devices that have been used in journal and associations recommendations were collocations means a group of words, repetition of words, linking verbs, substitution, ellipsis, conjunctions, etc. All the cohesive devices that were used in the data represented specific themes and ideas of researcher and directories ideologies. Use of cohesive devices in research papers and associations have been shown in the form of text screenshots and table.

Table.4 Cohesion

<p><u>Cohesive devices of articles</u> And, although, or, in conclusion, overall, such as, Furthermore, In summary, and, but, further studies, between , moreover, etc.</p>	<p><u>Cohesive devices of associations</u> And, but, or, nor and, along, moreover,</p>
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Articles Text

“Overall, these data, especially for men, provide further support to the public health ... Although in our study we reported no beneficial Furthermore, BMI, diet, and physical activity are associated..... In summary, we found that a healthier lifestyle... between milk intake and risk of colon.... the specific relationship between different food types and the degree of defecation dysfunction... In conclusion, our findings...” (Pelser et al; 2014).

Association Text:

“Overall, diets that are high in vegetables, fruits, and whole grains, and low in red and processed meats, probably lower colorectal cancer risk..... Avoiding risk factors and increasing protective factors may lower your risk, but it does not.....” (American society cancer Association)

“Rectal cancer surgery removes cancer and lymph nodes, along with lenition of the normal rectum on either side of the tumor” (American Society of Colon and Rectal Surgeons)

Research journal’s writings were found more precise and scientific and standardized because most researchers do their research in the academic fields, on the other hand, associations’ recommendations writings were not as scientific as research journals the reason behind is that associations’ recommendations were for the general public, and they promoted different agendas so they used agenda promoter items.

B. Coherence:

As for a journal writings are concerned, mostly focused on the coherence in sentence structure. Journals vocabulary is quite scientific, logical and authentic, which makes writing more connected to ideas. Occasionally, journals follow the grammatical pattern and maintain coherence in the text and focus on the contextual sentences, this strategy makes the text easier for the reader to understand but association’s writers are more focused on the grammatical pattern, so they even used code wording that has hidden meaning in it. This is why common people or people, who do not belong to the medical field, are unable to understand the recommendations of associations. The Coherence of the research papers and associations have been shown in the form of text.

Article text

“Although this finding was of smaller magnitude in comparison to that of WG bread, it agrees with results from a Finnish cohort study in which a preventive role of rye foods in the risk of colorectal cancer in men was also suggested. Furthermore, BMI, diet, and physical activity are associated with genetic and epigenetic changes in the colon and rectal tumors.” (Egeberg, R., Olsen, A., Loft, S. et al.)

Association Text

“Overall, diets that are high in vegetables, fruits, and whole grains, and low in red and processed meats, probably lower colorectal cancer risk” (American *society* cancer Association)

Prepositions

A group of words that play the role of connectors between words in a sentence is called prepositions. Each preposition has quite a different meaning in different contexts. It shows the relationship of nouns, pronouns, adjectives, etc. e.g. the tea is on the table beside you. She is cooking in the kitchen. They will be arriving at midnight.

In this section, prepositions have been investigating both association’s recommendations and journals’ recommendations. Associations used more prepositions in a single form of the sentence rather than journal recommendations for emphasizing their ideologies. Prepositions used in association and journals texts are as follows:

Table. 5 Preposition

<p><u>Prepositions used in Associations</u> An action is taken to, the chance of, known to cause cancer, to treat, to keep, cancer from, takes in, from foods and helps pass waste material out of the body. in vegetables, in red, in the diet, risk of, in both. To remove, a portion of, rectum on, side of, depending on, features of. risk of, by identifying, develop into</p>	<p><u>Prepositions used in Research Article</u> with, risk of, evident for, risk of, with higher consumption, of WG, an action taken to, the chance of, known to, before colorectal cancer, with, overall, after diagnosis with, such as, from, at, in, off, in vegetables, in red, in the diet, risk of, in both, etc.</p>
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Association text

“Cancer prevention is an action taken to lower the chance of getting cancer... Avoiding things known to cause cancer... Taking [medicines](#) to treat a [precancerous condition](#) or keep into cancer from start... Cancer prevention clinical trials are used to study ways to prevent cancer... The digestive system takes in [nutrients](#) ([vitamins](#), [minerals](#), [carbohydrates](#), fats, [proteins](#), and water) from foods and helps pass waste material out of the body.... prevent new cancers from starting, [scientists](#) look at [risk factors](#) and [protective factors](#)..... Regular exercise and a healthy diet may be protective factors for some types of cancer..... Taking medicines to treat a precancerous condition or to keep cancer from starting.” (National cancer institute USA)

Article text

“Overall, needing to change one's ... important theme in addressing defecation dysfunction in patients following sphincter-saving surgery.....support and instructions for diet and nutrition so that patients can effectively deal with defecation dysfunction after sphincter-saving surgery... reduced risk of colon cancer, particularly in men... came from Nutrients from.... with, overall, after diagnosis with...” (Liu W, Xu JM et al.)

Rhetoric devices:

Rhetoric is a procedure of using language, as a matter of fact, persuasively in spoken or formed structure. An art of talk studies and uses various procedures to convince, influence, or fulfill a gathering. Van Dijk's way of talking is partitioned into two sections: poetic exaggeration and representation. Poetic overstatement is the utilization of embellishment as an explanatory gadget or hyperbole. Verse and rhetoric accentuate, inspire unmistakable inclinations, and make compelling impressions. As a hyperbole, it is normally not intended to be taken in a real sense and similitude is an interesting expression where a word or expression indicating one sort of article or activity is utilized instead of one more to propose a similarity or relationship between them. The graph shows that there were no significance amount of rhetorical devices have been used in journals as well as in associations.

Table.6 Summary of Linguistic gap between medical associations and research articles.

Semantic Level		Lexicon Level		Syntax level Cohesion, Coherence, Preposition		Rhetorical devices
Associations	Journals	Associations	Journals	Associations	Journals	A&J
Magnolia Low-fat milk vitamin coffee Brown bread Physical activity Intake of vitamins Physical activity Vitamin intake Endoscopy Chemotherapy Radiation therapy Colostomy Surgery	Daily walk Alcohol consumpti on Vegetables Increase milk intake Exercise Avoid alcohol Anti- oxidant	Endoscopy, vitamin coffee fiber, polyps, milk, water avoid sodium, control, intake healthy lifestyle, brown bread, red meat, etc.	Fish, eggs, exercise, grains, milk, diet Mediterran ean diet, alcohol fruit, vegetables, nuts, fresh juice, etc. Intake of vitamin c, intake of nitrate	cohesion And, or, nor and, along, Coherence Although, overall, such as, Furthermore, In summary. Preposition to, of, from, in by, into, with ,by ,to, on	cohesion And, but, or, nor and, moreover, further, between Coherence In conclusion, overall, In summary. Preposition of, for, to, from with , in etc.	Null

The question number two, three, four and five answered in the form of table. The researcher briefly explained the linguistic gaps between medical associations and research articles at semantic, lexicon and syntax levels. As mentioned earlier, the purpose of this study was to explore the use of language imposed by different pharmaceutical companies, doctors and stakeholders. Apart from this, it has been also revealed that these stakeholders used certain word phrases and rhetorical devices to impose their agendas. Different studies that researcher have mentioned in the literature review supported this study for example Gopang and Fraz (2014), Hassan (2018) , Shah et al. (2013), all the studies described hidden agendas and desired purposes which are support to this study. Mostly, Doctors and surgeons are associated with medical associations. As we know that from the starts all the associations recommended brands cereals and branded medicines to the patients it’s only the reason that today’s doctors are not sincere with their professions that’s why they advertise brands for the sake of making money. If we took an example of developing countries like Pakistan India we came to know that doctors opened their private clinics, hospital

and medical pharmacy that are sponsored by different brands. Doctors always suggested those medicines that are only available at their personal medical stores. If they recommended any dietary plan they suggest to buy cereals and packed food from their medical store instead of suggesting them a homemade fresh food.

This study somehow falls into Capitalism theory in which all the economics ownerships has the elite of the society similarly we could see all the brand recommended by different pharmaceutical companies, doctors and stakeholders promoted elite people ideologies.

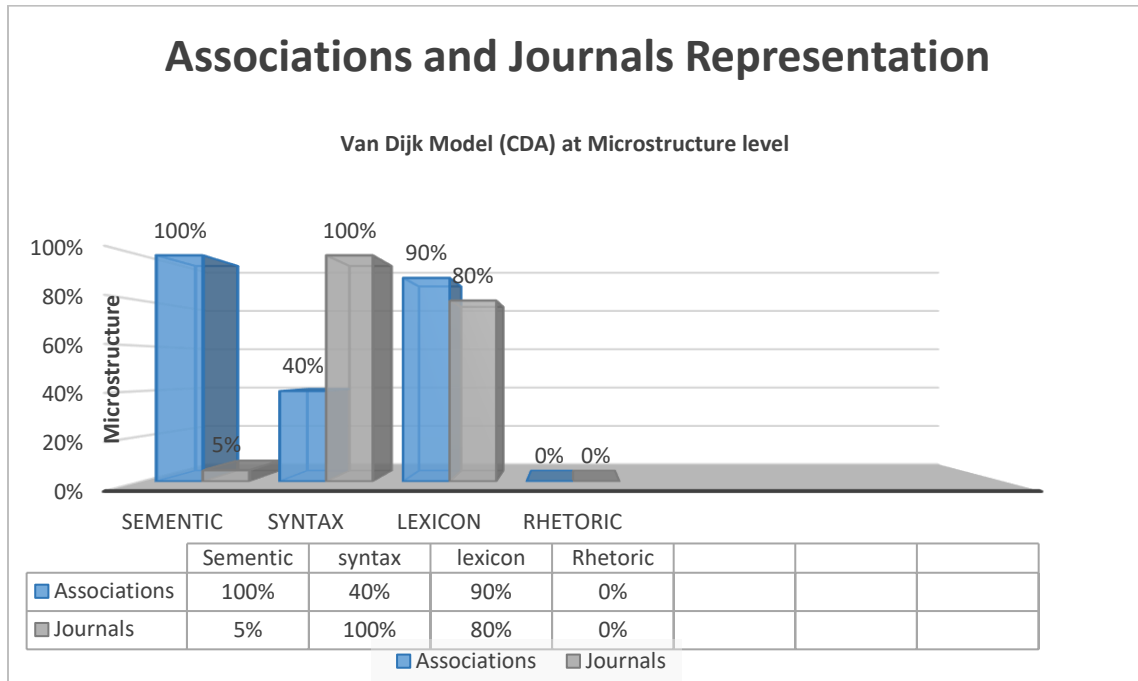


Fig.6 shows the graphical representation of association and journal results.

From the findings, revealed that at the semantic level, as the graph shows, Associations use different dietary products as representations of background. Associations directed the public for required information regarding the dietary disease but journal recommendations are on a healthy diet, and the researchers are never involved in any funding to promote powerful thinking. The higher graph of sematic level shows the negative side of the association’s results regarding the recommendations of using different products, and the low graph shows the positive side of journals’ recommendations of a healthy diet.

At the syntax level, research journals have been found more precise and scientific and standardized because most of the researchers do their research in the academic fields, on the other hand, the association’s recommendations writings were not as scientific as research journals, the reason behind this is that associations recommendations were for the general public so, this is why, they use agenda promoter items. The higher graphs show that journal writings were found highly scientific and academic rather than associations writing and the low side of the graph shows associations writing results.

At the lexical level, different authorities and directories are used as relevant lexical items to deliver their required message. As mentioned above, all the lexical words that have been used promoted a specific hidden belief and power. The lexical word or basic words like nouns, verbs, adjectives, and adverbs have been used in the data for reverent concerns. The representation of the graph shows that associations and journals used equally lexical devices somehow with minor differences. The graph shows that there were no rhetorical devices used in journals as well as in associations.

CONCLUSION

Critical discourse analysis is utilized in many disciplines and different faculties. So, the utilization of critical discourse analysis on associations and journal recommendations related to medical sciences is unique to van Dijk’s Taxonomy. The data analysis of both recommendations shows that different directories and pharmaceutical companies and stakeholders tried to impose their ideology through microstructure levels as shown in the graph. Through the post-positivist approach, researchers concluded that the results of associations and journals recommendations that certain choices of words, phrases, clauses, sentences, and rhetorical devices have been used in medical discourse to propagate certain ideologies and hidden agendas and to divert public attention toward certain dietary brands, medicines, and surgeries. Moreover, the medical discourse developers

tried to impose a great impact of their hidden ideologies and agendas on public minds. Association's recommendations promoted hidden agenda because surgeons or directories are associated with different brands while journals are not associated with any type of brand or medicine companies, which is why, their recommendations gave clear and authentic information.

LIMITATIONS OF THE STUDY

Finally, a number of important limitations need to be considered. First, the data size that has been used in the study is limited. Secondly, the critical discourse has been analyzed at microstructure. Thirdly the data was collected randomly from Google scholars for investigation and not analyzed in depth. Several questions remain unanswered in the present study so future researchers can analyze the remaining aspects of medical discourse through different critical model discourse.

CREDIT AUTHOR STATEMENT

Ata ul Ghafar: Writing- Original draft preparation, Data curation. **Dr. Syed Kazim Shah:** Supervision Conceptualization, Methodology. **Iqra Tahir:** Visualization, Investigation, Data Analysis. **Zahra Batool:** Writing- Reviewing and Editing

ETHICAL STANDARDS:

It is declare that all authors don't have any conflict of interest. It is also declare that this article does not contain any studies with human participants or animals performed by any of the authors. Furthermore, informed consent was obtained from all individual participants included in the study.

REFERENCE

- Abduramanova, D. Rasulmetova, S. (2020). Understanding the Relationship of Language Culture and Society. *ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES VOLUME 1 |ISSUE 3 ISSN: 2181-1385*
- ASCRS American Society of Colon and Rectal Surgeons retrieved <https://fascrs.org/>
- American Society Cancer Association retrieved <https://www.cancer.org/>
- Fairclough, N. (1989). Language and Power. Translated by: Indah Rohmani. 2003. Malang: Boyan Publishing
- Gopang, B. & Bughio, A. F. (2014). Pakistani Budget 2013-2014: A Critical Discourse Analysis *International Journal of English Language Teaching* Vol. 2, No.1; doi:10.5430/ijelt.v2n1p40 URL: <http://dx.doi.org/10.5430/ijelt.v2n1p40>
- Egeberg, R., Olsen, A., Loft, S. et al. Intake of wholegrain products and risk of colorectal cancers in the Diet, Cancer and Health cohort study. *Br J Cancer* 103, 730–734 (2010). <https://doi.org/10.1038/sj.bjc.6605806>
- Hassan, A. (2018). Language, Media, and Ideology: Critical Discourse Analysis of Pakistani News Bulletin Headlines and Its Impact on Viewers. *SAGE and Open Access pages*, DOI: 10.1177/2158244018792612 journals.sagepub.com/home/sgo
- Huo, R. Martimianakis, A. M. (2021). A critical discourse analysis of face masks and its association with health construction in medical education. *Canadian Medical Education Journal 2021*, volume 12(1) DOI: <https://doi.org/10.36834/cmej.70406>.
- Ijaz, A. S. K. & Ilyas, M. (2022). Ideology in “Besharam”: A Multi-Modal Discourse Analysis of Pakistani Dramas *VFAST Transactions on Education and Social Sciences*, ISSN (e): 2309-3951, ISSN (p): 2411-0221 Volume 10, Number 1, 2022
- Jahedi, M, Abdullah, F. Mukundan, J. (2014). An Overview of Focal Approaches of Critical Discourse Analysis *International Journal of Education & Literacy Studies* ISSN 2202-9478 URL: <http://dx.doi.org/10.7575/aiac.ijels.v.2n.4p.28>
- James, M. W. (2009). Medical discourse. *The Annual Review of Anthropology*, 2009.38:199-215. [arjournals.annualreviews.org](https://www.annualreviews.org/journals/annualreviews.org)
- Liu W, Xu JM, Zhang YX, Lu HJ, Xia HO. The experience of dealing with defecation dysfunction by changing the eating behaviours of people with rectal cancer following sphincter-saving surgery: A qualitative study. *Nurs Open*. 2021 May;8(3):1501-1509. doi: 10.1002/nop2.768. Epub 2021 Jan 12. PMID: 33434410; PMCID: PMC8046130.
- Marnia, S. Wahidb, A. Aliman, M. (2018) Representation of Elite Powers: Microstructure Discourse Analysis "FULL DAY SCHOOL" *The 4th Hamzanwadi International Conference on Education:* <https://www.researchgate.net/publication/332750327>
- National cancer institute USA retrieved <https://www.cancer.gov/>
- Pun, K. (2021). A study of Chinese medical Students' Communication pattern in Delivering Bad News: An Ethnographic Discourse Analysis Approach. *Pun BMC Medical Education* (2021) 21:286 <https://doi.org/10.1186/s12909-021-02724-6>
- Pelser et al. (2014) Lifestyle Factors and Colorectal Cancer Survival *cancer* Volume 120, Issue 10 DOI: [10.1002/ncr.28573](https://doi.org/10.1002/ncr.28573))
- Qin Sie, “Critical Discourse Analysis of news discourse,” *Theory Pract. Lang. Stud.*, vol. 8, no. 4, p. 399, 2018.
- Shah, S. K., Tariq, W., & Bilal, M. (2013). Ideology in English Textbooks: A Case Study of Matric Level Books in Punjab. *Research on Humanities and Social Sciences*, 3, 113-120.
- Shah, S. K. & Mubarak, A. (2018). Media Discourse as Representative of Socio-Cultural Milieu of Law and Order in Pakistan: *A Critical Discourse Analysis of Newspapers' Headlines about Model Town Tragedy, Lahore*. 2. 2664-1453.

- Syukri, M. Azhar, N. M. Karunia, k. (2019). Analysis of Law Discourse through Van Dijk Model Approach Advances in Social Science, Education and Humanities Research, volume 436
- Wickham, G. Kendall, G. (2008) Critical Discourse Analysis, Description, Explanation, Causes: Foucault's Inspiration Versus Weber's Perspiration *Historical Social Research Vol. 33, No. 1 (123), Lancang Kuning*
- Shabir, G. Safdar, G. & Imran, M. (2013). Cultural Effects of Urdu Dramas of Geo and Hum TV on Women: A Case Study of Bahawalpur, Pakistan. *Annual Research Journal*, Vol. 5, 2013
- Schiffrin, D. Tannen, D. Hamilton, H. E. The Handbook of Discourse Analysis. Copyright © Blackwell Publishers Ltd 2001
- Song, L. (2010). The Role of Context in Discourse Analysis. *Journal of Language Teaching and Research*, Vol. 1, No. 6, pp. 876-879, November 2010 ISSN 1798-4769
- Yazdannik, A. Yousefy, A. & Mohammadi, S. (2017). Discourse analysis: A useful Methodology for Health-Care System Researches. *Journal of Education and Health Promotion*, volume 6: DOI:10.4103/jehp.jehp_124_15
- Zia, A. (2014). Effects of dramas of Pakistan television on youth. *Middle-East Journal of Scientific Research*, 22(9): 1390-1395.