

Family Communication and Family Relations: A Bibliometric and Network Analysis

Lenilda Soares Viana, Karla Maria Damiano Teixeira

Abstract— The aim of this study was to carry out a survey of the worldwide scientific publications on family communication and family relationships, carried out since 2000. 469 articles from the Web of Science database were analyzed using the VOSViewer® software, performing bibliometric analysis, network and descriptive. A panorama of publications linked to different contexts was identified, such as marital relationship, health / disease dyad, conflict, media, sexuality, homosexual relationships, spirituality, among other approaches. It was found that in the researched database the terms "communication", "family", "marriage" and "health" are strongly interconnected, highlighting the communication in this network, confirming the importance of studying this theme as a way to guarantee the communication success in the family. In the database searched, the vast majority of studies were conducted in the United States. This data justifies the importance of this study and reveals the need for investments in related research in other countries.

Index Terms— communication in the family, family relationship, family communication, bibliometric analysis, network analysis.

I. INTRODUCTION

Effective communication between family members means better family relationships (Ireland, 2017). This statement can be better explained by Olson (2000), who states that several aspects can affect how a family functions, such as stress, family conflicts, developmental stages, intrafamily tensions, among others, compromising cohesion of the family. Examples of these intrafamilial tensions include hearing loss. These aspects require coping strategies to be adopted to deal with new experiences, impacting the field of communication. These strategies tend to lead the family to adapt to changes in order to improve family functioning. Studying this topic, therefore, helps to understand how communication happens at family dinners and how family relationships happen, thus seeking to contribute to family adaptation in the face of the hearing loss of one of its members.

Thus, the aim of this study was to investigate national and international scientific output on family communication and family relations, aiming to discover the production and dissemination of scientific knowledge related to the topic through bibliometric and network analysis. For

Ribeiro (2014), the scientific output of a specific subject, area or field of study only develops if there are consolidated research groups. In this sense, the bibliometrics analysis allows the observation of the state of science through all scientific production registered in a repository data, identifying trends in a given area of knowledge (Soares et. al, 2016). In this way, we sought to know the profile of the studies carried out in the world literature on the theme of communication in the family and family relationships, starting in the year 2000. The following review shows the different approaches related to the subject in the literature.

One of the most commonly addressed aspects is the marital relationship. Nguyen et al. (2017) observed that communication affects changes in relationship quality, especially when couples face challenging situations which require an adaptive response. Denes et al. (2017) explored the interpersonal outcomes of receiving and giving affection, including interpersonal acceptance and rejection. Hooper et al. (2017) investigated the impact negative communication techniques had on marital satisfaction in married individuals, and communication with the partner had the greatest negative impact on relationship satisfaction. Studies have evaluated the effectiveness of education for couples and relationships at risk (Dupree et al., 2016; Halford, 2004); how people in romantic relationships use communication to manage financial uncertainty (Romo, 2015); communication patterns of relational coping in soldiers at war (Rossetto, 2012); domestic violence witnessed or experienced, communication skills and social support in the relationship between home-work conflict and domestic violence (Trachtenberg et al., 2009); how social policies and public health perspectives influence the strengthening of couples' relationships through education (Halford et al., 2008); and the importance of continued investment in relationships to avoid relational burdens and promote resilience as a guarantee of success (Afifi et al., 2016).

Health-related communication has also been the subject of research by many researchers, with the main themes addressing factors associated with third-party disability in spouses of elderly individuals with hearing impairment. Third-party disability is defined as a change in family functioning as a result of the health condition of the significant other (Scarinci et al., 2012); the influence of social support and perceptions of family relationships on communication by cancer patients (Chopra & Kelly, 2017; Namkoong et al., 2017); family caregiver communication in the Intensive Care Unit (ICU) and the importance of health literacy in decision making in complicated cases (Young, A. et al., 2016); specific communication strategies in revealing HIV diagnoses and support networks (Brashers et al., 2017); the effects of debilitating illnesses and injuries on communication in intimate relationships, from the perspective

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of maintaining relationships (Bute et al., 2007); communication by individuals with amyotrophic lateral sclerosis (Ball et al., 2002, 2004); family discussion as an important communication process regarding the decision to donate organs (Smith et al., 2005); and the active involvement of significant others as responsible for observed improvements in alcohol-related disorders (Hallgren & McCrady, 2016).

Another topic addressed was conflict, studied in terms of its triggers in intergenerational relations, such as competition (Wiebe & Zhang, 2016); its effects on relationships in family businesses (Nose et al., 2015); and on family farms (Paskewitz & Beck, 2017); and in the relationships of incarcerated adults, in the individual, couple and parental domains (Harcourt et al., 2017).

With regard to family communication itself, Kalbfleisch (2002) presented a set of theories on the study of communication in human relations, in terms of family communication patterns (Keating et al., 2013; Young, J. & Schrodt, 2016); and the effects of family communication patterns, addressing the benefits of conversation and the dangers of conformity (Hays et al., 2017).

The media were also the object of research, analysed in terms of the relationship between culture shock, exoticization and exoticism, explaining the proliferation of intercultural television as a contemporary vehicle of exotic representations (Kuppens & Mast, 2012); and its importance for social support, especially in maintaining and strengthening existing relationships (Lu & Hampton, 2016; Quan-Haase et al., 2017).

The relationship between communication and sexuality was also addressed, considering the influence of sexual communication on interventions to facilitate family planning for couples (Matsuda, 2017); family discourses on sexual behaviour (Manning, 2016); the relationship of lesbian, gay and bisexual couples and individuals (Teh et al., 2015); and problems in long-term marital relationships between transgender people (Zrenchik & Doherty, 2017).

With regards psychological aspects, the research focused on the centrality of the family as a powerful social support in cases of depression (Curran & Allen, 2017; Martinez, 2017); in the interactional practice exploring humour (Bochantin, 2017); and the role of couples' religious communication and its influence on marital satisfaction (David & Stafford, 2015).

We also investigated the relationship between the frequency of suicidal communication and the intent to commit suicide among military personnel (Hamid & Bolong, 2015); communication strategies related to altered weight control behaviours and their influence on relationships (Romo, 2018); sibling communication during adulthood (Brockhage & Phillips, 2016); the relationship between grandparents and grandchildren (Soliz & Harwood, 2006); the impact of newcomers on family communication routines (Prentice, 2008); and perceptions and observations of interactions between adoptive parents, biological parents and adoptive children which characterize open adoption relationships (Colaner & Scharp, 2016).

The articles mentioned prove to what extent the topic in question has been approached from different perspectives, involving the marital relationship, the health/illness dyad, conflict, the media, sexuality, gay relationships and spirituality, among others. Below are

described the steps involved in the planning and execution of this study.

II. MATERIALS AND METHODS

We searched for articles in the Web of Science database using the descriptors “communication in the family”, “family relationship”, and “family communication”. Articles related to the terms “adolescent”, “children”, and “kid” were excluded. Filters were used such as time interval (from 2000 to 17 June 2020), categories of study (“family studies”, “communication”, and “audiology speech language pathology”) to search for scientific output of articles only, excluding other types of documents. Of the 3.556 articles found in the initial search, the abovementioned filters selected 469 which made up the sample. The network analyses were performed using VOSViewer®.

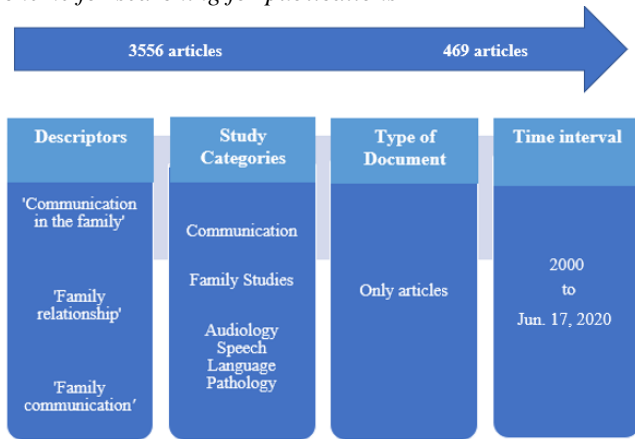
Web of Science was chosen as this platform enables academic output on a particular topic to be quickly identified. Carvalho, M. et al. (2013) state that it is an internationally indexed and accredited database, with an impact factor calculated by the Journal Citation Reports (JCR), and provides a set of information needed for bibliometric analysis, complete publication data, such as category (area of publication), evolution of publications per year, country of publication and funding agencies, among others.

VOSViewer® software was used, enabling visualization of similarities (VOS) through networks. This article uses the co-occurrence of keywords. For Van Eck and Waltman (2009), VOSViewer® was developed to construct and visualize large bibliometric maps in an easily interpreted way. Analysis of these network maps enables us to visualize the relationships between the main actors of the study. Although the first publications on social networks date back to 1984, it was at the beginning of the 21st century that this topic began to expand and it is rapidly evolving in the literature (Ribeiro, 2014).

The size of the nodes, the circles, shows their importance or representativeness in the network, as does the thickness of their connections and their direction (Carvalho, F. et al., 2015). The line and the distance between the circles indicate the strength of the link, the closer they are the stronger the link is (Zhang & Banerji, 2017). Other important information concerns clusters, united by some common characteristic (Carvalho, F. et al. 2015). The clusters are identified using different colours, giving a direct view of the connections (Zhang & Banerji, 2017).

In addition to the data provided by Web of Science and VOSViewer®, Excel software was used to tabulate other data on the sample of articles and the abstracts of the articles were analysed. Figure 1 shows the scheme for searching for the data up to selection of the sample. After data were generated, their potential contribution to understanding the relationships analysed in this study was evaluated, and the results considered significant and related to the purpose of this article are shown here. A quantitative analysis, using descriptive statistics, was performed, in addition to network analysis.

Figure 1
Scheme for searching for publications



Source: Study data.

III. RESULTS AND DISCUSSION

The bibliometric analysis showed that the vast majority are included in the “communication” and “family studies” categories, with the “audiology speech language pathology” category also selected, as it is closely related to the area of interest of the research. Figure 2 shows the distribution of publications by category.

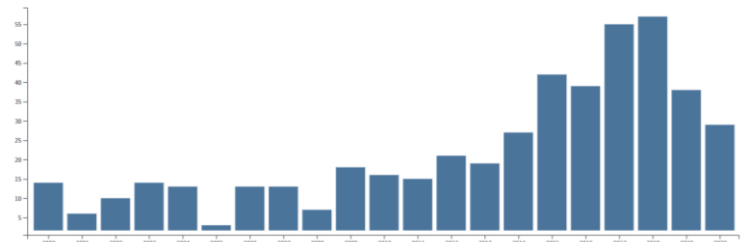
Figure 2
Distribution of the articles by web of science categories

Category	Count	Percentage
COMMUNICATION	243	51.812 %
FAMILY STUDIES	204	43.497 %
PSYCHOLOGY CLINICAL	73	15.565 %
LINGUISTICS	44	9.382 %
AUDIOLOGY SPEECH LANGUAGE PATHOLOGY	43	9.168 %
HEALTH POLICY SERVICES	39	8.316 %
PSYCHOLOGY SOCIAL	39	8.316 %
REHABILITATION	36	7.676 %
SOCIAL WORK	26	5.544 %
INFORMATION SCIENCE LIBRARY SCIENCE	23	4.904 %
CLINICAL NEUROLOGY	19	4.051 %
SOCIOLOGY	15	3.198 %
SOCIAL SCIENCES BIOMEDICAL	11	2.345 %
PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	8	1.706 %

Source: Study data.

With regard to the date of publication of the articles, the lowest number of publications was in the year 2005 (Figure 3). There was an exponential growth of the curve, an increase in the number of publications during 2005 and a peak of publication in the years 2017 and 2018. However, the year 2019 is marked by a drop in the number of research publications in the area of communication in the family.

Figure 3
Evolution of publications by year



Source: Study data.

As for funding agencies, as shown in Figure 4, four stand out as investing the most in family communication research, namely: United States Department of Health and Human Services, National Institutes of Child Health NIH USA, NIH Eunice Kennedy Shriver National Institute of Child Health Human Development and NIH National Cancer Institute NCI. The last three are United States (US) government institutions linked to the Department of Health and Human Services (HHS) and National Institutes of Health (NIH), as verified on the NIH website (<https://www.nih.gov/>).

Figure 4
Main funding agencies for family communication research

Funding Agency	Count	Percentage
UNITED STATES DEPARTMENT OF HEALTH HUMAN SERVICES	45	9.595 %
NATIONAL INSTITUTES OF HEALTH NIH USA	42	8.955 %
NIH EUNICE KENNEDY SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH HUMAN DEVELOPMENT NICHD	11	2.345 %
NIH NATIONAL CANCER INSTITUTE NCI	11	2.345 %
NIH NATIONAL INSTITUTE OF MENTAL HEALTH NIMH	8	1.706 %
NIH NATIONAL INSTITUTE OF NURSING RESEARCH NINR	5	1.066 %
NIH NATIONAL INSTITUTE OF ALLERGY INFECTIOUS DISEASES NIAID	3	0.640 %
AMERICAN CANCER SOCIETY	2	0.426 %
AUSTRALIAN RESEARCH COUNCIL	2	0.426 %
GATES FOUNDATION	2	0.426 %
NATIONAL SCIENCE FOUNDATION NSF	2	0.426 %
NIH NATIONAL HUMAN GENOME RESEARCH INSTITUTE NHGRI	2	0.426 %
NIH NATIONAL INSTITUTE ON AGING NIA	2	0.426 %
NIH NATIONAL INSTITUTE ON DEAFNESS OTHER COMMUNICATION DISORDERS NIDCD	2	0.426 %
NIH NATIONAL INSTITUTE ON DRUG ABUSE NIDA	2	0.426 %

Source: Study data.

Considering that the main funding agencies are from the US, the largest number of publications in the area, 73,987% to be exact, is also concentrated there, as can be seen in Figure 5. According to the article “Investimento em pesquisa nos EUA sobe em 2017” (2018), in 2017, the US government invested \$118.3 billion in US dollars in research and development, representing an increase of 2.3% compared to 2016, which is in line with the data found in this study, with US publications standing out, and increased publications in 2017-2018, as shown above in Figure 3. In keeping with the country with the largest publication in the area and with notable research support, the main language found in the studies was English (Figure 6). For Carvalho, F. et al. (2015), scientific content is of global domain and access only when

available in English. Thus, the academic output available in this area can be considered significantly accessible, since the vast majority is published in this language.

Figure 5

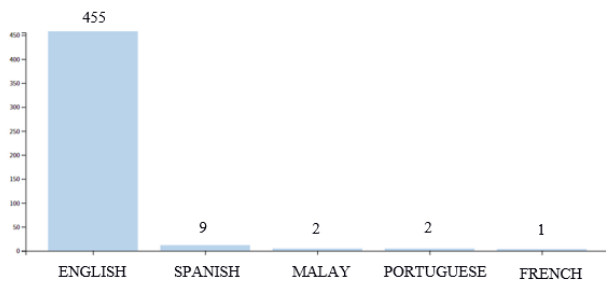
Main countries of publication

USA	347	73.987 %
AUSTRALIA	30	6.397 %
CANADA	22	4.691 %
ENGLAND	20	4.264 %
NEW ZEALAND	9	1.919 %
PEOPLES R CHINA	8	1.706 %
SOUTH AFRICA	8	1.706 %
SPAIN	8	1.706 %
BELGIUM	6	1.279 %
NETHERLANDS	6	1.279 %
GERMANY	5	1.066 %
INDIA	5	1.066 %
SINGAPORE	5	1.066 %
SOUTH KOREA	5	1.066 %
FINLAND	4	0.853 %

Source: Study data.

Figure 6

Language of publication



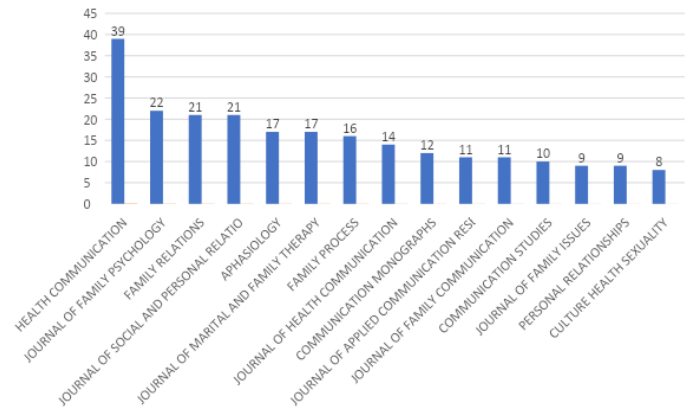
Source: Study data.

Figure 7 highlights the main journals that concentrate the largest number of publications: Health Communication (impact factor [IF] 1.46), Journal of Family Psychology (IF 2.23), Family Relations (IF 1.42), Journal of Social and Personal Relationships (IF 1.69), Aphasiology (IF 1.08), Journal of Marital and Family Therapy (IF 1.42), Family Process (IF 3.0), Journal of Health Communication (IF 1.64), Communication Monographs (IF 2.02), Journal of Applied Communication Research (IF 1.00), Journal of Family Communication (IF 1.73), Communication Studies (IF 1.00), Journal of Family Issues (IF 1.24), Personal Relationships (IF 1.41) and Culture Health Sexuality (IF 1.17), among other important manuscripts. The IF is a bibliometric method for assessing the importance of scientific journals in their respective fields. It is a measure which reflects the average number of citations of scientific articles published in a particular journal. Since 1972, IF has been calculated annually for journals indexed with the Institute for Scientific Information (ISI) and then published in the Journal Citation Reports (JCR), with the highest IF being considered the most important. However, many journals, including Brazilian journals, are not included in the JCR index because

they do not meet the inclusion criteria established by such index, including peer review, for example (Jacobsen, 2016).

Figure 7

Main publication journals



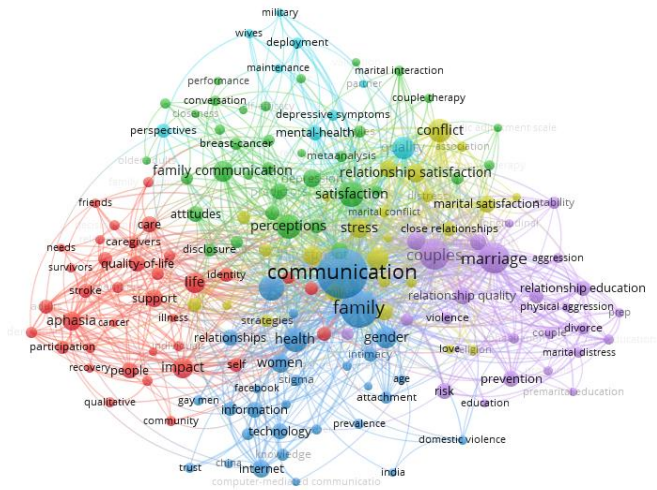
Source: Study data.

The most cited article found was by Koerner and Fitzpatrick (2006), Toward a theory of family communication. It aimed to develop a theory of communication which considered the specific environment of the family communication. This theory indicates that family communication is the result of cognitive processes determined by family relationship schemes, as well as the social conventions governing the relation of symbols to their referents. To this end, the authors reconsidered the definition of family as a group of intimates which generate a sense of domestic identity and experience a shared history. The highlight of the study is that although communication plays a central role in the family, there were no specific theories of family communication, which shows its pioneering nature and importance for science.

Moving on to network analysis, Figure 8 shows the network formed based on the keywords of the articles evaluated. Based on this map, we can see there are six different groups, clusters, which are represented by the colours red (cluster 1), green (cluster 2), royal blue (cluster 3), yellow (cluster 4), purple (cluster 5) and turquoise (cluster 6). For Malini (2013), a cluster is a set of strongly connected nodes; the graphical representation of an interactive network. Van Eck and Waltman (2009) state that clusters located close to each other on the map indicate closely related fields. Thus, for each cluster certain keywords of the network were selected and analysed, according to the interest of the study, as shown in Figure 9.

Figure 8

Network map of the keywords of the studies analysed.



Source: Study data.

Figure 9

Analysis of the clusters

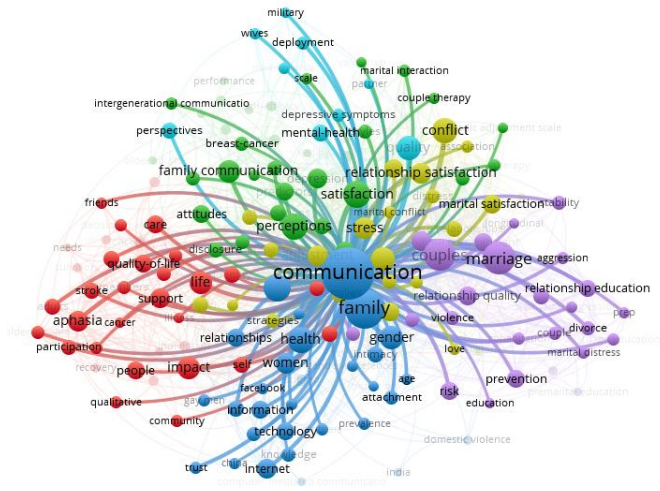
Clusters	Key words	Inference/Summary
Cluster 1	Care Intervention Illness Partners Quality of life Recovery Speech	The health problems of one spouse, such as those involving speech, require care and, sometimes, professional intervention to ensure recovery and preserve the quality of life of those of the partners.
Cluster 2	Attitude Behavior Couple therapy Family communication Marital interaction Perceptions Strategies	Communication in the family should be valued, seeking to assess the perceptions of those involved, in order to take actions and create strategies that promote conjugal interaction, suggesting, if necessary, couple therapy.
Cluster 3	Communication Domestic violence Family Family relationships Health Information Intimacy knowledge Relationship Social media Social support Stigma Women	Communication and information are important tools in the fight against domestic violence. Fear of exposure to intimacy and the stigma generated can compromise the health of those involved. In these situations, social and media support are fundamental in the dissemination of the knowledge necessary for the preservation of women's rights and the guarantee of healthy family relationships.
Cluster 4	Close relationships Conflict Families Family relationships Interpersonal communication Marital conflict Marital satisfaction Relationship satisfaction Religion Resilience	Faced with possible conflicts that arise in close relationships, such as within families, specifically marital conflict, it is common to observe the presence of resilience and religiosity, as a way to restore satisfaction in relationships, through interpersonal communication.
Cluster 5	Aggression Commitment Couples Marriage Marriage education Prevention Relationship education Relationship quality	Aggression in a marital relationship is not only physical, but verbal as well. Therefore, prevention, the commitment of couples, is necessary to maintain the quality of relationships. One of the alternatives is via relationship education.
Cluster 6	Deployment Depressive symptoms Mental-health Partners Quality Wives	The development of depressive symptoms and impaired mental health is often associated with the quality of relationships between partners, especially for wives.

Returning to the network, the VOSViewer® program zoom program, presented by Van Eck and Waltman (2009), makes it possible to evaluate not only the overall structure of a map, but also to inspect these maps in detail. A point that stands out in this assessment, as seen in Figure 8, is the highlighting of the term “communication” in the centre of the map, indicating a strong relationship between it and the clusters, as suggested by the same authors. In Figure 10, the term “communication” can be seen, with its links to different terms such as “family”, “conflict”, “marriage”, “health”, “family communication”, “relationships”, “quality-of-life”,

“perceptions”, “relationships satisfaction”, among others. Some of these links, more related to the topic of interest, have already been analysed in relation to clusters and others will be analysed and discussed in this article.

Figure 10

The network based on communication

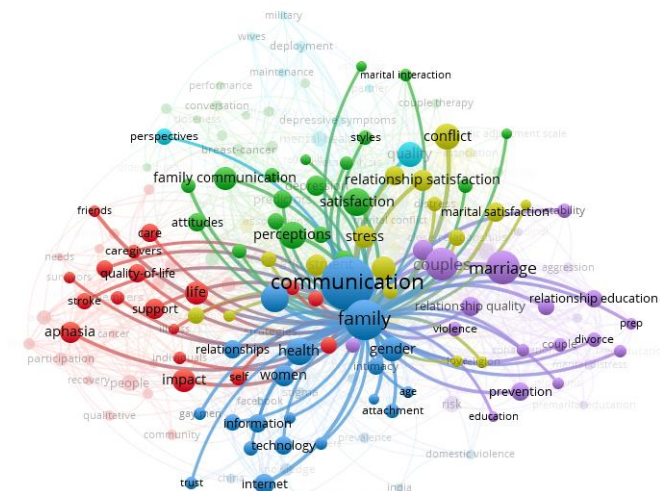


Source: Study data.

Continuing analysis of the network, according to the reasoning of Van Eck and Waltman (2009), there is a proximity between family and communication, revealing them to be closely related fields (Figure 11). If we extend the analysis to other prominent nodes shown in the map; “couples” and “marriage”, it can be said that these terms are interconnected, and inferred that communication plays a central role in the family, specifically in the marital relationship. For Akhlaq et al., (2012), good communication fosters the development of stronger relationships within families.

Figure 11

The network analysed based on family



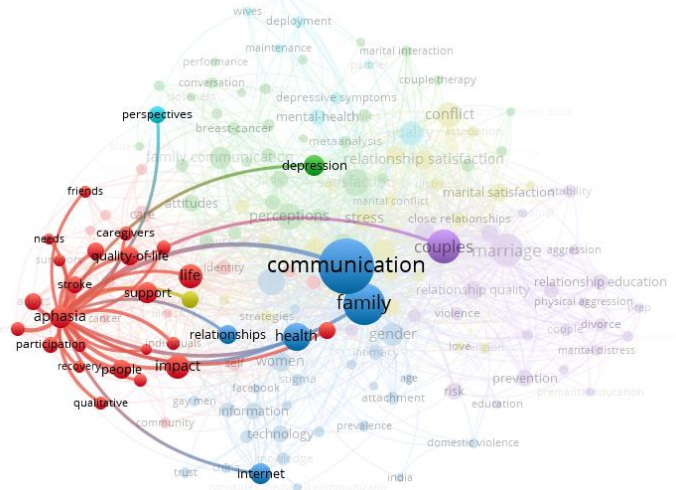
Source: Study data.

Using the zoom function, this map can be split into two other networks deserving of discussion and highlight

(Figures 12 and 13). When analysing the issues of hearing or hearing loss and its relationship to the communication process, it can be seen that even including the category “audiology speech language pathology”, the term “hearing”, or “hearing loss” was not found on the map. However, the presence of the word “aphasia” was observed, as shown in Figure 12. Aphasia can be understood as language impairment, characterizing a difficulty in understanding/expressing words.

Figure 12

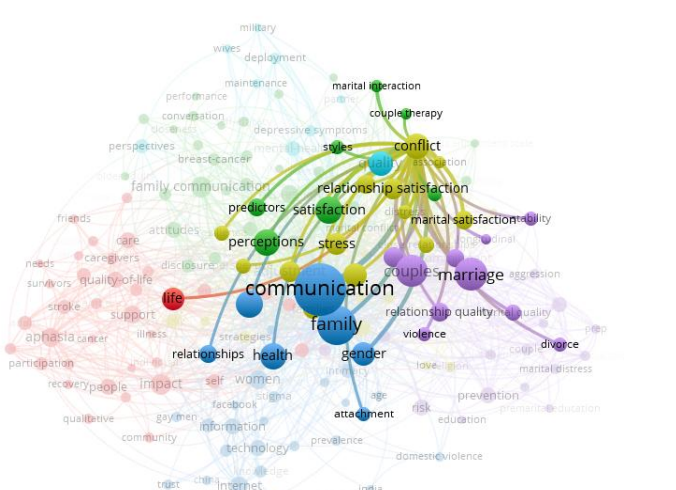
The network analysed based on aphasia.



Source: Study data.

Figure 13

The network analysed based on conflict



Source: Study data.

Howe et al. (2012) state that aphasia affects family members as well as the individuals with the communication disorder, and it is important to provide a family-centred approach to their rehabilitation. Brown et al. (2012)

investigated the life journey of aphasics and claim that in order to be successful, a holistic approach is required which takes into consideration communication in the broader context of the individual's daily life in partnership with their families. If we audaciously extend this reasoning, hearing loss is analysed as a communication difficulty, there is a direct relationship to quality of life, which may infer that hearing loss can compromise communication in the family, affecting quality of life.

The last analysis was performed based on the term "conflict", as shown in Figure 13. Again, the study findings were extended and applied to hearing loss. If we consider that the hearing loss of a family member can generate conflicts in the family's relationships, the term "interventions" appears in the network, so that this communicative process, compromised by the loss, goes towards adaptation.

For Akhlaq et al. (2012), family communication is the key to a family's success, provided it is strong and healthy. Koerner and Fitzpatrick (2005) state that certain behaviours contribute to or impair family functioning, promoting environments conducive to communication, or otherwise. Mcguigan et al., (2014) state that family cohesion, affective ties between family members, and flexibility, i.e. the family's ability to change in the face of situational and developmental needs, should be considered and worked on in interventions.

IV. CONCLUSION

This article aimed to discover the profile of studies conducted in the literature on the topic worldwide: communication in the family and family relations, from the year 2000 onward, hoping to discover the output and dissemination of scientific knowledge related to the topic through a meta-analysis.

Responding to the question that guided the article, the analyses performed: bibliometric, network and descriptive, enable us to state that communication in the family has been approached from different perspectives which involve the marital relationship, the health/illness dyad, conflict, the media, sexuality, gay relationships, spirituality among other approaches. It was found that in the database searched, the terms "communication", "family", "marriage" and "health" are strongly interconnected, with "communication" standing out in this network, confirming the importance of studying this topic as a way of ensuring the success of communication in the family environment.

It was also noted that the topic addressed has been little explored in the literature in Brazil, with the vast majority of studies conducted in the US, where there is a strong incentive for research in this area. This data justifies the need for exploration of the topic in Brazil.

One of the limitations of this study was the fact that only one database, Web of Science, was used for data collection. Although it is an internationally accredited platform, it is suggested that future research be extended to new databases.

REFERENCES

[1] Afifi, T. D., Merrill, A. F., & Davis, S. (2016). The theory of resilience and relational load. *Personal Relationships*, 23(4), 663-683.

[2] Akhlaq, A., Malik, N. I., & Khan, N. A. (2012). Family Communication and Family System as the Predictors of Family Satisfaction in

Adolescents. *Science Journal of Psychology*, 2013, Article sjspsych-258.

[3] American Association for the Advancement of Science. (n.d.). *Where to Search for Funding*.

[4] Ball, L. J., Beukelman, D. R., & Pattee, G. L. (2002). Timing of speech deterioration in people with amyotrophic lateral sclerosis. *Journal of Medical Speech-Language Pathology*, 10(4), 231-235.

[5] Ball, L. J., Beukelman, D. R., & Pattee, G. L. (2004). Communication effectiveness of individuals with amyotrophic lateral sclerosis. *Journal of Communication Disorders*, 37(3), 197-215

[6] Bochantin, J. E. (2017). Ambulance Thieves, Clowns, and Naked Grandfathers: How PSEs and Their Families Use Humorous Communication as a Sensemaking Device. *Management Communication Quarterly*, 31(2), 278-296.

[7] Brashers, D. E., Basinger, E. D., Rintamaki, L. S., Caughlin, J. P., & Para, M. (2017). Taking Control: The Efficacy and Durability of a Peer-Led Uncertainty Management Intervention for People Recently Diagnosed With HIV. *Health Communication*, 32(1), 11-21.

[8] Brockhage, K., & Phillips, K. E. (2016). (Re) Negotiating Our Relationship: How Contradictions Emerge in Sibling Privacy Boundaries. *Southern Communication Journal*, 81(2), 79-91.

[9] Brown, K., Worrall, L. E., Davidson, B., & Howe, T. (2012). Living successfully with aphasia: A qualitative meta-analysis of the perspectives of individuals with aphasia, family members, and speech-language pathologists. *International Journal of Speech-Language Pathology*, 14(2), 141-155.

[10] Bute, J., Donovan-Kicken, E., & Martins, N. (2007). Effects of communication-debilitating illnesses and injuries on close relationships: A relational maintenance perspective. *Health Communication*, 21(3), 235-246.

[11] Carvalho, F. C. A., Rossetto, D. E., Borini, F. M., & Figueiredo, J. C. B. (2015). Capacidade Absortiva e Inovação: Um Panorama da Produção Científica Internacional entre 1990-2015. *Anais do IV SINGEP*, Brazil.

[12] Carvalho, M. M., Fleury, A., & Lopes, A. P. (2013). An overview of the literature on technology roadmapping (TRM): Contributions and trends. *Technological Forecasting and Social Change*, 80(7), 1418-1437.

[13] Chopra, I., & Kelly, K. M. (2017). Cancer Risk Information Sharing: The Experience of Individuals Receiving Genetic Counseling for BRCA1/2 Mutations. *Journal of Health Communication*, 22(2), 143-152.

[14] Colaner, C. W., & Scharp, K. M. (2016). Maintaining Open Adoption Relationships: Practitioner Insights on Adoptive Parents' Regulation of Adoption Kinship Networks. *Communication Studies*, 67(3), 359-378.

[15] Curran, T., & Allen, J. (2017). Family Communication Patterns, Self-Esteem, and Depressive Symptoms: The Mediating Role of Direct Personalization of Conflict. *Communication Reports*, 30(2), 80-90.

[16] David, P., & Stafford, L. (2015). A Relational Approach to Religion and Spirituality in Marriage: The Role of Couples' Religious Communication in Marital Satisfaction. *Journal of Family Issues*, 36(2), 232-249.

[17] Denes, A., Bennett, M., & Winkler, K. L. (2017). Exploring the Benefits of Affectionate Communication: Implications for Interpersonal Acceptance-Rejection Theory. *Journal of Family Theory & Review*, 9(4), 491-506.

[18] DuPree, D. G., Whiting, J. B., & Harris, S. M. (2017). A Person-Oriented Analysis of Couple and Relationship Education. *Family Relations*, 65(5), 635-646.

[19] Escosteguy, A. C., Trevisan Felippi, A. C., Guerin, Y., & Dornelles, M. (2016). Rural families in tobacco growing areas and their daily interaction with communication technologies: the reorganization of personal and family life. *Chasqui-Revista Latinoamericana de Comunicacion*, 130, 329-345.

[20] Halford, W. K. (2004). The future of couple relationship education: Suggestions on how it can make a difference. *Family Relations*, 53(5), 559-566.

[21] Halford, W. K., Markman, H.J., & Stanley, S. (2008). Strengthening couples' relationships with education: Social policy and public health perspectives. *Journal of Family Psychology*, 22(4), 497-505.

[22] Hallgren, K. A., & McCrady, B. S. (2016). We-Language and Sustained Reductions in Drinking in Couple-Based Treatment for Alcohol Use Disorders. *Family Process*, 55(1), 62-78.

[23] Hamid, M. R. B. Al, & Bolong, J. (2015). The relationship of suicidal communication frequency with suicide intent among military personnel. *Jurnal Komunikasi: Malaysian Journal of Communication*, 31(1), 101-132.

- [24] Harcourt, K. T., Adler-Baeder, F., Rauer, A., Pettit, G. S., & Erath, S. (2017). Relationship Education for Incarcerated Adults. *Family Process, 56*(1), 75-90.
- [25] Hays, A., Maliski, R., & Warner, B. (2017). Analyzing the Effects of Family Communication Patterns on the Decision to Disclose a Health Issue to a Parent: The Benefits of Conversation and Dangers of Conformity. *Health Communication, 32*(7), 837-844.
- [26] Higgins, J. P. T., & Green S. (2011). *Cochrane handbook for systematic reviews of interventions* (5.1.0 ed.). The Cochrane Collaboration.
- [27] Hooper, A., Spann, C., McCray, T., & Kimberly, C. (2017). Revisiting the Basics: Understanding Potential Demographic Differences with John Gottman's Four Horsemen and Emotional Flooding. *Family Journal, 25*(3), 224-229.
- [28] Howe, T., Davidson, B., Worrall, L., Hersh, D., Ferguson, A., Sherratt, S., & Gilbert, J. (2012). You needed to rehab ... families as well': family members' own goals for aphasia rehabilitation. *International Journal of Language & Communication Disorders, 47*(5), 511-521.
- [29] Investimento em pesquisa nos EUA sobe em 2017. (2018, September). *Pesquisa FAPESP, 271*, 15.
- [30] Ireland, K. (2017, November 28). The impact of effective communication in the family. *Our Everyday Life*.
- [31] Jacobsen, P. (2016, September 26). O que você precisa saber sobre Fator de Impacto. *Biblioteca Central UFRGS*.
- [32] Kalbfleisch, P. J. (2002). Communication-based theory development: Building theories for communication research. *Communication Theory, 12*(1), 5-7.
- [33] Keating, D. M., Russell, J. C., Cornacchione, J., & Smith, S. W. (2013). Family Communication Patterns and Difficult Family Conversations. *Journal of Applied Communication Research, 41*(2), 160-180.
- [34] Koerner, A. F., & Fitzpatrick, M. A. (2005). Family communication patterns theory: A social cognitive approach. *Theories Originating in Communication, 50*-65.
- [35] Koerner, A. F., & Fitzpatrick, M. A. (2006). Toward a Theory of Family Communication. *International Communication Association, 70*-91.
- [36] Kuppens, A., & Mast, J. (2012). Ticket to the Tribes: culture shock and the 'exotic' in intercultural reality television. *Media Culture & Society, 34*(7), 799-814.
- [37] Lovatto, P. A., Lehnen, C. R., Andretta, I., Carvalho A. D., & Hauschild, L. (2007). Meta-análise em pesquisas científicas: enfoque em metodologias. *Revista Brasileira de Zootecnia, 36*, 285-294.
- [38] Lu, W., & Hampton, K. N. (2016). Beyond the power of networks: Differentiating network structure from social media affordances for perceived social support. *New Media & Society, 19*(6), 861-879.
- [39] Malini, F. (2013). Extrair, minerar e visualizar controvérsias em redes sociais. In F. Malini (Ed.), *Introdução à Teoria dos Grafos e Análise de Redes Sociais* (pp. 01-26). Universidade Federal do Espírito Santo.
- [40] Manning, J. (2016). Examining Health and Relationship Beliefs in Family Discourses About Purity Pledges: Gender, Faith Values, and the Communicative Constitution of Reality. *Western Journal of Communication, 81*(1), 87-104.
- [41] Martinez, A. R. (2017). Intersectionality, Voz, and Agency: A Culture-Centered Approach to Understanding U.S.-Born Mexican Americans' Depression Experiences. *Southern Communication Journal, 82*(5), 278-297.
- [42] Matsuda, Y. (2016). Actor-Partner Interdependence Model Analysis of Sexual Communication and Relationship/Family Planning Factors Among Immigrant Latino Couples in the United States. *Health Communication, 32*(5), 612-620.
- [43] Mcguigan, W. M., Vuchinich, V., & Tang, C. Y. (2014). Negative Communication Behaviors During Family Problem Solving: Cohesion as a Moderator in a Growth Curve Analysis. *Journal of Family Communication, 14*(2), 95-111.
- [44] Namkoong, K., Shah, D. V., & Gustafson, D. H. (2017). Offline Social Relationships and Online Cancer Communication: Effects of Social and Family Support on Online Social Network Building. *Health Communication, 32*(11), 1422-1429.
- [45] Nguyen, T. P., Williamson, H. C., Karney, B. R., & Bradbury, T. N. (2017). Communication Moderates Effects of Residential Mobility on Relationship Quality Among Ethnically Diverse Couples. *Journal of Family Psychology, 31*(6), 753-764.
- [46] Nose, L., Korunka, C., Frank, H., & Danes, S. M. (2015). Decreasing the Effects of Relationship Conflict on Family Businesses: The Moderating Role of Family Climate. *Journal of Family Issues, 38*(1), 25-51.
- [47] Olson, D. H. (2000). Circumplex model of marital and family systems. *Journal of Family Therapy, 22* (2), 144-167.
- [48] Paskewitz, E. A., & Beck, S. J. (2017). When Work and Family Merge: Understanding Intragroup Conflict Experiences in Family Farm Businesses. *Journal of Family Communication, 17*(4), 386-400.
- [49] Pimenta, A.A.; Portela, A.R.M.R.; Oliveira, C.B.de; Ribeiro, R.M. (2017). A bibliometria nas pesquisas acadêmicas. *Scientia, 4* (7), 1-13.
- [50] Committed Relationships: A Comparative Analysis. *Journal of GLBT Family Studies, 13*(5), 459-477.