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VIRTUAL SUPPORT COMMUNITIES ON FACEBOOK ABOUT IN VITRO FERTILIZATION PROCEDURES

COMUNIDADES VIRTUALES DE APOYO EN FACEBOOK SOBRE PROCEDIMIENTOS DE FECUNDACIÓN IN VITRO

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ABSTRACT

This research analyzes the communication practices that occur regarding the highly complex assisted reproduction technique of Fertilization or in vitro fertilization (IVF) within two virtual communities: Fertilización In Vitro - Buscando BB, consisting of 3.3 thousand members, and Embarazos por fertilización In Vitro o inseminación consisting of 18.1 thousand members. Both are hosted on the social network Facebook, identified through the narrative and virtual ethnography, the participant's profile, and the type of content that is shared among members who are in preparation for motherhood, focusing on the process that women carry out before initiating IVF, which includes: the development of the treatment, the betawait, and the result (being or not being pregnant). For this, observation was carried out online for a long time, recording relevant data regarding posts, comments, and interactions in a field log, resulting in the categorization of the most significant trends. The results are grouped from the characterization of the virtual communities analyzed; the rules of participation, protocols, and convenience; as well as communication practices and areas of interest. It is concluded that virtual communities are a space that permits the gathering to extend support, accompaniment, recognition, and the sense of belonging among women or couples who are going through the same process in which they can collaborate, share, and learn from others, but above all find moral and emotional support.

Keywords: Virtual communities, Facebook, In Vitro fertilization, Fertility, Social Networks.



RESUMEN

En esta investigación se analizan las prácticas de comunicación que se dan en torno a la técnica de reproducción asistida de alta complejidad Fertilización o fecundación in vitro (FVI) dentro de dos comunidades virtuales: Fertilización In Vitro - Buscando BB, integrado por 3.3 mil miembros; y Embarazos por fertilización In Vitro o inseminación con 18.1 mil miembros, ambas alojadas dentro de la red social *Facebook*, identificando a través de la narrativa y la etnografía virtual, el perfil de los participantes y el tipo de contenido que se comparten entre los miembros en el camino de preparación hacia la maternidad, centrando la mirada en el proceso que realizan las mujeres antes de iniciar la FIV, que comprende: el desarrollo del tratamiento, la betaespera, y el resultado (guedar o no embarazada). Para ello, se realizó observación en línea por un largo periodo de tiempo, registrando en un diario de campo los datos relevantes en torno a publicaciones, comentarios e interacciones, dando como resultado una categorización de las tendencias más significativas. Los resultados se agrupan a partir de la caracterización de las comunidades virtuales analizadas; las normas de participación, protocolos y convivencia; así como, las prácticas de comunicación y áreas de interés. Se concluye que las comunidades virtuales son un espacio que permite la unión para extender lazos de apoyo, acompañamiento, reconocimiento y pertenencia entre mujeres o parejas que están transitando por el proceso, donde pueden colaborar, compartir y aprender de los otros, pero, sobre todo, encontrar un apoyo moral y emocional.

Palabras clave: Comunidades virtuales, Facebook, Fecundación In Vitro, Fertilidad, Redes Sociales.

COMUNIDADES DE APOIO VIRTUAL NO FACEBOOK RELACIONADAS A PROCEDIMENTOS DE FERTILIZAÇÃO IN VITRO

RESUMO

Esta pesquisa analisa as práticas de comunicação que ocorrem em torno da técnica de reprodução assistida de alta complexidade Fertilização ou fertilização in vitro (FIV) em duas comunidades virtuais: Fertilização In Vitro - Procurando BB, composta por 3,3 mil membros; e Gestações por fertilização ou inseminação in vitro com 18,1 mil integrantes, ambas hospedadas na rede social Facebook, identificando por meio de etnografia narrativa e virtual, o perfil das participantes e o tipo de conteúdo que é compartilhado entre as integrantes no processo de preparação para a maternidade, com foco no processo que a mulher passa antes de iniciar a FIV, isto inclui: o desenvolvimento do tratamento, a espera do beta e o resultado (engravidando ou não). Para isso, foi realizada uma observação online por um longo período de tempo, registrando em diário de campo os dados relevantes sobre publicações, comentários e interações, dando como resultado uma categorização das tendências mais significativas. Os resultados foram agrupados a partir da caracterização das comunidades virtuais analisadas; as regras de participação, protocolos e convivência; bem como práticas de comunicação e áreas de interesse. Conclui-se entao que as comunidades virtuais são um espaço que permite compartilhar e ampliar lacos de apoio, acompanhamento, reconhecimento e pertencimento entre mulheres ou casais que estão passando pelo processo, onde podem colaborar, compartilhar e aprender com os outros, mas, acima de tudo, encontrar apoio moral e emocional.

Palavras chave: Comunidades virtuais, Facebook, Fecundación In Vitro, Fertilidade, Redes sociais.

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1. INTRODUCTION

Virtual communities have become digital spaces where users with similar characteristics and interests form networks of personal relationships in which their members interact and share their experiences. These scenarios are increasingly popular among women, or couples, who have infertility issues, and resort to treatments or alternatives that help them achieve a pregnancy, seeking the sense of belonging to a group with the same interests, where they can share their personal experiences, as well as knowing the experiences of others, which provokes a feeling of union among the members as they feel accompanied in this process.

In Mexico, where this study is carried out, it is estimated that between 4 and 5 million couples have infertility issues. The figures are increasing, which leads to an increase in assisted reproduction treatments, as it is an alternative that allows more people and couples to conceive a child. This problem can be suffered equally by men and women, among the causes that specialists identify are: stress, alcohol and tobacco consumption, poor diet, and the postponement of motherhood, as well as genetic and hormonal factors (Mexican Association for the Study of Infertility, 2021).

Scientific advances and discoveries in the fields of Biomedicine and Biotechnology have enabled the development and use of new human reproduction techniques that allow the fertilization of human beings and the modification of genetic structures. Among the assisted reproduction techniques are artificial insemination and In Vitro Fertilization (IVF), the appearance of the latter is the technique that has managed to move global public opinion, due to the consequences that it entails, allowing the birth of thousands of children from 1978 to date (Gómez, 2015).

IVF is an assisted reproduction technique that involves extracorporeal fertilization in the union of an egg and sperm outside the womb, using a culture dish inside a specialized laboratory. The IVF process consists of:

Exogenous stimulation of the ovaries by human or recombinant (synthetic) gonadotrophins; extraction of the egg cells through a minimally invasive surgical procedure (eco-guided follicular aspiration); in vitro fertilization in the embryology laboratory after selection and classification of oocyte quality and sperm capacitation; systematic embryo culture; and embryo transfer in the uterine cavity, pending successful implantation (Kushner-Dávalos, 2010, p.77).

IVF emerged as an alternative for couples with infertility issues, however, there are currently many reasons why this type of treatment is used; On the one hand, there

are medical issues such as: obstruction of the fallopian tubes, gynecological pathologies, ovulatory problems, asthenozoospermia, teratozoospermia, etc.; On the other hand, there are other types of patients who, due to different situations, resort to this technique, among which those who seek to carry out a Preimplantation Genetic Testing (PGT), either due to a history of family genetic diseases or sex selection, women with tubal ligation or bilateral tubal ligation (BTL), women who decide to freeze their eggs due to health situations or sociocultural factors that lead them to postpone motherhood, single women who want to be mothers, same-sex couples who seek to share biological maternity through the ROPA method (reception of eggs from the couple), as well as couples seeking surrogacy, stand out.

Nowadays, this highly complex reproduction technique has become an alternative for women or couples who have not achieved pregnancy naturally or with low complexity treatments. However, carrying out IVF is still complicated, due to how expensive this type of treatment is, which is why many women or couples who want to carry out IVF or are going through this process, look for spaces or communities that allow them to feel emotionally accompanied, as well as to know the procedures and processes.

2. DIGITAL SOCIAL NETWORKS, A MEETING POINT FOR THE CONFORMATION OF VIRTUAL COMMUNITIES

Humanity since its origins has created social networks as "a means of supporting other people, particularly in certain situations... social support and mutual help can arise spontaneously or stimulated through different formal or informal initiatives" (Abello and Madariaga, 1999, p. 117). These networks are generated from family circles, friends, acquaintances, neighbors, or members of the community, in this sense, the conception of a social network integrates:

Set of actors linked to each other... actors can be individuals or groups: companies, communities, social support organizations, countries, cities, etc. Links are anything that connects the actors, for example: love, power, alliances, friendship, family relationship, email contact, common religious beliefs, rivalry, etc. (Monsalve, 2008, p. 1)¹.

The foregoing shows us that the term social networks is not new since people form networks all the time in their daily lives, their logic in the digital environment starts from the same base, potentiating their action (links), due to the possibilities offered by platforms and the internet to connect people (actors) synchronously and asynchronously, from nearby or remote places; In this sense, we integrate the term social networks² to the "set of telematic communication tools that are based on the internet, are organized around personal or professional profiles of users, and aim to sequentially connect the owners of these profiles through categories, groups,

¹ From the hard sciences, graph theory has been used for the analysis of social networks, one of the lines arises from sociometry in the 1930s, together with statistics, which seeks to carry out social analysis more formally (Monsalve, 2008).

² In the bibliography, we can locate meanings such as socio-digital networks which refer to social networks that are built on digital media and the Internet.

personal labels, etc. linked to their own person or professional profile" (Castañeda and Gutiérrez, 2010, p. 18), functioning as new environments to relate, organize, learn, socialize, and exchange information in a simple way.

According to their function, there are different types of social networks, in this research, we place ourselves in the Social Networking Sites, which work based on profiles created by the user (whether real or fictitious) regarding their personal interests and needs. Among its benefits are the communication possibilities that range from sending group or personalized messages, posting videos, photos, images, or making comments; the elimination of space and time barriers, since it is possible to communicate at the same time or asynchronously with your contacts, creating a network that can grow exponentially, giving way to virtual communities according to the interests and needs of the user.

A community in a traditional face-to-face scheme, "understood as a physical, geographical, cultural presence that shares common interests and problems to be solved jointly with those who make it up" (Ortiz, 2012, p. 117), in the virtual environment has its own nuances, "it appears when a group of real people uses telematics to maintain and expand communication. The fact that the interaction can be carried out between physical persons but linked through telematic networks is what leads us to speak of virtual communities" (Pazos, et al., 2001, p. 5). Rheingold (1996) defines them as "social aggregates that arise in the network when a sufficient number of people carry out (...) public discussions for a long enough time, with enough human feelings to form networks of personal relationships in cyberspace" (as cited in Meirinhos and Osorio, 2009, p. 47). The basic aspects that make them up are the people, interests, and relationships shared by their members, the rules defined by the administrators, the communication protocols, prolonged interaction over time, and contact mediated by telematic networks (Moreno, 2011). These communities can be built entirely by physical communities, with a part of real communities, or separated from physical communities (Aoki, 1994, as cited in Pazos et al., 2001).

To carry out an analysis of a virtual community, there must be a network of exchange and flow of information, as mentioned by Pazos et al. (p.5), besides having the following characteristics:

• Accessibility, which defines the possibilities of intercommunication, and where mere technological availability is not enough.

• Culture of participation, collaboration, diversity, and sharing, determine the quality of life of the community since they are key elements for the flow of information. If diversity is not welcomed and the notion of collaboration is seen as more of a threat than an opportunity, community conditions will be weak.

• Skills available among members. The type of skills needed can be communication skills, information management, and processing skills. Indeed, in the information society, a key facet will be the information capacity of

citizens (which is a combination of availability of information, ability to access it, and skills to exploit it).

• Relevant content. The relevance of the content, as it fundamentally depends on the contributions of members of the community, is closely related to the aspects that we have indicated as quality factors of the communities.

In the bibliography we can find various classifications of virtual communities, Meirinhos and Osorio (2009) identify three main ones: "the interest communities, learning communities, and practice communities, but they acknowledge that there is an infinity of different communities depending on the objectives, formality levels, and longevity" (p.47). In the interest virtual communities, their members come from varied cultures and media, and their dynamic is framed in the field of mutual help for the resolution of personal problems rather than group ones; learning virtual communities, are more directed to academic contexts of learning and training, emerge in institutional contexts, and are built by their members (professors, students) from one or several institutions; practice virtual communities bring together professionals from one organization (colleagues and co-workers) or from several, who collaborate beyond the tasks established by the organizations, in collaborative processes for problem-solving; Other typologies have focused on virtual communities whose purpose is a commercial orientation. It is important to highlight that "these classifications should not be understood as closed typologies, since sometimes the limits between one type of community and another can be diffuse or vary throughout the evolution of the community" (Moreno, 2011, p. 4).

There are levels of participation and involvement. At the heart of the group, there are the people who have active participation in the virtual community, they are the ones who guide the debates, the discussions, and those who are in charge of the internal management of the group, the administrators are among them; in the active group, it has less participation, those members who interact frequently are located; At the third level, the peripheral or passive group is integrated, since they rarely participate, having more of an observer function (Meirinhos and Osório, 2009).

3. OBJECTIVE

Carry out an analysis of the communication practices that arise around the highly complex assisted reproduction technique "In vitro fertilization" (IVF), in two virtual communities that are built on the Facebook social network, identifying through the narrative and the virtual ethnography, the profile of the participants and the type of content that is shared among the members on the preparation path for motherhood.

4. METHODOLOGY

The methodology is qualitative, based on virtual ethnography, a method that takes up the elements of classical ethnography but is adapted for the analysis of virtual communities, considering that these groups allow an approach to "know the social reality of communities that can hardly be observed in a physical context, because they are related to ICTs, building new realities in everyday life" (Rodríguez and Rodríguez, 2020, p.113). The selected groups are: "*Fertilización In Vitro - Buscando BB*" (hereinafter CV1) made up of 3.3 thousand members; the second group: "*Embarazos por fertilización In Vitro o inseminación*" (hereinafter CV2) with 18.1 thousand members, both hosted within the Facebook social network, oriented on the subject of study, besides having an important level of interaction which is nurtured by users, moderators, and administrators, having regularly updated publications, with a constant flow of communication between the participants and the posts that are made, which allowed having a rich database for research.

The fieldwork began in 2020 to date in two stages; First, performing online observation, which allowed us to understand the logic of the interactions, the topics discussed, and an approach for the construction of the categories of analysis, identifying three central processes - before, during, and after - on which the internal discussions that are linked to the essence of coexistence, which is to conceive a child, take place. Due to the breadth of information in this research, only the first stage is presented, which has to do with the publications and meanings that are built in the period before becoming pregnant. With this delimitation, the second stage began, oriented towards an analysis of the comments and reactions of the women who interact on the subject, returning to the narrative and the theoretical elements that define a virtual communication protocols-, allowing an approach to the meanings, communication practices, and representations that are built and discussed about IVF.

5. RESULTS

5.1. Characterization of the virtual communities analyzed

Analyzing two communities focused on IVF procedures helped to have a more enriching panorama of the practices that are developed within these virtual communities. The objective that gives rise to the creation of both groups on Facebook is the common interest of users to have a space where they can share their experiences, ailments, doubts, and processes they are carrying out to achieve a pregnancy through this procedure, existing an identity by sharing a purpose that unites the members.

The general management of the groups falls mainly on the administrators or moderators, the latter, are integrated at the invitation of those who created the group. The function performed by both figures is to review comments, eliminate users or content that are outside the objectives of the community, as well as follow up on the internally established rules (essential requirements to enter and remain in the community). The aforementioned elements are fundamental to not undermine the function of the group since it is common for people who seek to sell products to enter or find messages that are offensive or outside the central idea of the community, which is to have a communication space for people who are in the process of being mothers or fathers through this procedure.

Hi, I hope that you help me decide, we are already more than 4000 members;

of whom, 1% are male. I have not been accepting men in this group for a few months, those who are, if they misbehave with a comment or something, let me know. Well, my question is: Do we accept men again? Every day I must reject approximately 10 requests from men to join the group, I leave it in your hands, what the majority decides, this group belongs to everyone. (Verbatim quote taken from CV-2).

To be a member, it is necessary to request to join the group by registration, by filling out a form that contains basic questions such as Why would you like to be in the group? It is also possible to join by direct invitation made by one of the members, however, both options require administrators to approve the request. Most of the members are women who want to get pregnant or are undergoing a highly complex treatment to achieve it, participation by men is unusual although related issues that affect both sexes are discussed. This is because they regularly do not respect the internal rules of the group, sending offensive messages to some of the members. Therefore, the language used by the participants and administrators is generally oriented toward women, this is visible with phrases such as: good morning girls, hello she-warriors, hello everyone.

It was also possible to identify that in these groups there are doctors who specialize in assisted reproduction and staff who work in fertility clinics, and even people with other types of interests such as medicine sellers, legal advisors, and even women who seek to rent their womb or be egg donors. This allows us to see that among the participants there are people related to the medical and pharmaceutical industry who are aware of the publications and participate when their brands, clinics, or companies are mentioned.

Regarding participation, it is the women who are starting or in the process of treatment who become more active, with comments, publications, or interacting within the group, taking an active role, and becoming the heart of the group as mentioned by Meirinhos and Osório (2009) "people who actively participate in the discussions, in the debates, in the work of the community... guide the activities and give direction to the community" (p. 55), from there, they are followed by the people who are in the pregnancy process, who are positive, as it is colloquially said in the group. An important aspect to mention is that some women who managed to get pregnant, after this process, leave the group thanking the support received from the community.

Hello girls, good morning, today I say goodbye to all of you hoping and longing for your dreams to come true, as well as mine, hopefully. If I have been able to help you with some comment, I thank the group for helping us with so many doubts, fears, and insecurities thanks for the support you have always given us, today with my two seven-month-old babies I say goodbye grateful to God for allowing me to know this group and grant me the greatest miracle, the life of my two little ones, to each and every one of you, who are still fighting for that miracle, I only tell you, do not give up, there is nothing stronger than faith, the road is sometimes longer than of others but each one is special and strong, that's why I tell you, yes, you can... again many thanks... (Inside the publication, the photo of her twins is integrated). (Verbatim quote taken from CV-1).

Others become passive members, that is, they rarely participate, being only observers, some more become mentors and share their experience with those who are in the process, answering questions and comments made within the virtual community. The abandonment of the group is also given by those who, after several failed IVF, give up on such a longed-for dream. Most members of the communities stay for a long time.

There are no criteria that determine the age that the members of the community must have, or for the registration of new members. It can be identified from their comments that the majority are women of reproductive age, however, within the publications made, there is a considerable number of women between 33 and 50 years old who seek to achieve a pregnancy. If it is taken as a basis that fertility clinics determine that after 33 or 35 years of age, the reproductive stage of women begins to decrease considerably and establish a limit age of between 50 and 51 years to carry out IVF treatment through the donation of gametes or embryos.

2 years, 13 transfers. Yes, you can, don't give up! At 47 years old, I present to you, my baby. (Their baby's ultrasound is integrated into the publication). (Verbatim quote taken from CV2).

On the other hand, it is common to find that many of the profiles participating in these spaces are new, with little activity within their personal account and an incipient number of friends, aspects that false or undercover profiles contain, which leaves open the possibility that these participants do not want to show their real information or seek to remain anonymous. These traits become visible in aspects such as the profile or cover photo, where images that do not fully show their identity are added.

5.2 Rules of participation, protocols, and coexistence

The rules or regulations stipulated in these communities are very similar and a pleasant environment is encouraged among its members, respecting the privacy and security of all members, and not using offensive language. The administrators and moderators are aware that the members comply with the rules that govern both communities, as a preventive measure they frequently publish notices about what is not allowed and the sanctions that are imposed on their members for not complying with the established rules. Generally, all posts are reviewed by these figures, who have the power to authorize, block, and remove non-compliant posts or members.

Good morning, everyone. We inform you that all comments with medications, active substances, brands, etc. written on them will be deleted immediately. The app prohibits it and the group as well. Besides the fact that we will never encourage medication because each case is different and must be attended by your specialist. We have already given alerts, red flags on the topic, and they

continue writing, responding, etc., with specific medicines. You are invited to write with symbols, spaces, etc., to substitute letters and for the word to be understood. However, there will no longer be indirect warnings, comments will simply be deleted immediately without prior notice. Thanks for your understanding. (Verbatim quote taken from CV1).

Another nodal point within the rules is the prohibition of self-promotion, sales, promotions, spam, and batches, which are part of the restrictions established by Facebook. Among the members, some carry out self-promotion of their pages, products, and services through discretionary publications that integrate links to other sites which the participants can access outside the community space, which has made users adapt other means for private communication or information that is not allowed within the platform, or look for other ways to interact, through the creation or invitation to be part of other groups or communities that integrate from pre-existing platforms such as WhatsApp, where users do have the possibility to talk extensively about issues such as the sale of medications, costs of procedures, sale of products, request for donations, among others, and thereby not violate the rules of the group.

Good morning beautiful ladies. I leave you the link to create a WhatsApp group and coordinate a nice meeting by Zoom and give support, talk, make friends, etc. For now, I need you to enter and then interact in it, so today and tomorrow will be for entering the link and then we greet each other and coordinate schedules according to our countries. (Verbatim quote taken from CV2).

The foregoing allows us to see how the interaction of the members of the community is extended to other platforms to interact freely and without restrictions by the rules that define both the Facebook platform, as well as the group.

5.3 Communication practices and areas of community interest

The communication practices and the areas of interest of the participants were focused on the period before the search for pregnancy and during the IVF treatment process, this was a delimitation within the study due to the breadth of results. Three key moments were identified that are defined as trends in the study, the first related to the integration of people within the group as a mechanism to create bonds; the second in the search and knowledge about the treatment, clinics, costs, and what the procedure consists of; and third, the IVF process - ovarian stimulation, ovarian puncture or egg retrieval, fertilization, embryo transfer, beta waiting, and the result.

One of the main characteristics that are identified as the first posts made by the new members of the communities is their presentation to the group, generally, they make publications in which they present themselves, trying to contextualize their clinical history, the diagnosis they present, the complications, and processes they have faced in the search for pregnancy. Additionally, they share personal data such as age, the city where they live, and marital status, among others.

Hello girls! Happy New Year! I'll introduce myself, my name is Luz, I am 30

years old, and we have been looking for a baby with my partner for a little over a year, I must say, I only have one ovary since I lost the other due to having a polycystic ovary, so we tried for a year and not having results, we decided to find out about doing IVF. Right now, we live in Mexico City and Nasceres was highly recommended to me. Is someone doing it there or can give me their opinion? We want to take a turn to start as soon as possible, in advance, thank you very much for reading. (Verbatim quote taken from CV1).

The following trend is related to the previous one when finding practices in publications in which they request or share information on existing treatment, IVF costs, recommendations from clinics or doctors, medications and places where they are obtained, the exams that they and their partners have to carry out, showing their diagnosis to request support or that someone with experience help them interpret them, questions about what the IVF procedure implies, recommendations are also shared about which vitamins or supplements to take, and the precautions to be taken before starting a treatment.

Good morning, I am about to start treatment, could you recommend to me where I can find a better price in Mexico City, thank you. (Verbatim quote taken from CV1).

About the IVF process, there are posts focused on ovarian stimulation, sharing with the community the process they are undergoing, for example, what day of their treatment they are on, pictures of their medications, they ask questions about how to take it or place it depending on the case, how not taking them can affect, which medication can be substituted for another, and the symptoms they have or may have from taking them. On the other hand, there are signs of support for the process that are visible through comments made by other members sending motivating messages. As a complement, videos or links of topics related to the process and activities such as meditation or nutrition are shared, which can help them to have a better result.

Hello girls, I'm here to tell you. My diagnosis is a low ovarian reserve, so I am undergoing stimulation. Today I went to the doctor, and he saw 2 eggs. I have the puncture for next week. I was discouraged by the number of oocytes... I thought I was going to release a little more... Someone who has gone through or is going through this process... I'll read your story. Success to all. (Verbatim quote taken from CV2).

Once the women have undergone the stimulation treatment and are ready for the ovarian puncture or egg retrieval process, the interactions focus on questions about the procedure, whether it is painful, what symptoms are caused by the extraction, how many oocytes were obtained, as well as the instructions and recommendations that the doctors gave them, this as an assessment mechanism that helps them determine how successful they can be in the process, so the feedback from the group is very helpful.

Hello, I underwent stimulation for oocyte extraction but they only

managed to extract 1, which did not work. My stimulation process was annoying, I felt my hips bursting, the doctor made me take an antimulerian test, which came out normal, and he told me that we are going to try to stimulate again, however, I feel very sad, I don't know if it is convenient or if I have some other hormonal recharge. The stimulation made me gain a bit of weight...kisses. (Verbatim quote taken from CV2).

Embryo transfer, like the previous processes, is intrinsically related to emotions, letting the group know through their publications, the feelings they face during this phase, for example, "tomorrow is my transfer" or sending photographs showing that they are in the clinic, ready to enter the operating room, they also ask questions about the procedure or symptoms. Finally, they share the photograph of the embryos that were placed, the quality they had, and if they were embryos or blasts, besides, the reactions of the community are immediate with comments of good vibes, recommendations, prayers, and emotional support. It is visible that multiple myths have been created around the process that must be carried out for the procedure to be successful.

Girls, today was my transfer, first God stay with me, there were 2 type A blastocysts, I have a doubt, I really wanted to go to the bathroom after the transfer, I only lasted 25 minutes, is it good or bad? I already ate my chips and my pineapple, my feet are up and warm, the Doc told me that today I must rest and tomorrow everything is normal, 3 daily ovules [1 every 8 hours], help me with recommendations, thank you very much for being so united and being such companions, supporting us in our entire process, my beta will be on the 23rd, will anyone else be waiting like me? (Verbatim quote taken from CV2).

Then the betawait continues, a term that has become popular in these communities that includes the period that elapses from the embryo transfer to the blood test, it is a difficult stage to cope with emotionally. In this period, the group becomes an important support system for them, raising a series of questions about advice on how to carry out the betawait. It is common for many women to carry out previous home tests, which they show in the community to help them interpret the result.

Hello girls, I am on day 7 of my transfer, it occurred to me to take a test and it was negative, did someone go through that and was later positive? (Verbatim quote taken from CV2).

Finally, the result of the process is made visible, through publications of those who achieve a positive result, which are accompanied by photographs showing the blood test (beta) and asking for advice to take care of themselves during this new stage and explore the possibilities they have to achieve a multiple pregnancy, based on the fact that most of them had more than one embryo implanted.

Hello again... this is my Beta, they told me at the clinic that it is positive but on Saturday I have to repeat it to confirm that the hormone continues to increase. Tell me your experience with it, I'm a little nervous. According to the second photo, I think that the hormone has increased day after day. (Verbatim quote taken from CV2).

On the other hand, some obtained a negative result, for them, the communities are of great support at this time, being a space in which they can express their feelings, their sadness, emotional and economic exhaustion, feeling comforted to meet more people who are going through the same process.

6. CONCLUSIONS

A fundamental part of these virtual communities is that they allow open ties of support and accompaniment, finding in the social network platforms a space for connection, exchange, recognition, and belonging in which it is possible to collaborate, design, create, share, and, ultimately, and almost without realizing it, learn from others and with others (Bosco et al., 2016, p. 27), but also find moral and emotional support. On the other hand, it is visible how the limitations established by the platforms for publications and the internal rules of the groups have not been an obstacle for the members, who have resorted to other means where they can interact and achieve their goals, from having personal conversations, sell products or services, and access information of interest.

These mechanisms of social interaction are becoming increasingly popular, it could be said that the dynamics that digital tools open are giving different shades to the participation and organization of citizens and groups interested in a specific topic, opening spaces, breaking spatial barriers, and synchronous and asynchronous participation.

For this study, only the processes carried out by women before starting IVF, during the development of the treatment, the beta-wait, and the result of the treatment were taken as a basis. However, after becoming positive, there is another cycle that is also in force in these communities focused on the pregnancy process, which opens new veins to continue researching these mechanisms of social interaction that are becoming increasingly popular. Without a doubt, virtual communities have very deep personal connections, which become emotional support among their members who are going through the same situation as they feel accompanied in this difficult process, which gives them a sense of belonging to the community.

7. REFERENCES

- Abello, R. y Madariaga, C. (1999). Las redes sociales, ¿Para qué? *Revista Científica Uninorte*, 2, 116-135.
- Asociación Mexicana para el Estudio de la Infertilidad (2021). *Situación de la infertilidad en México*. <u>https://ammr.org.mx/situacion-de-la-infertilidad-en-mexico/</u>
- Bosco, A., Miño, R., Rivera, P. y Alonso, C. (2016). Comunidades Virtuales, jóvenes y aprendizaje. La complejidad de una categorización. *Journal for Educators, Teachers and Trainers, 7*(2), 25-37.

Rodríguez González, L. and Rodríguez González, J. Virtual support communities on Facebook about in vitro fertilization procedures

- Castañeda, L. y Gutiérrez, I. (2010). Redes sociales y otros tejidos online para conectar personas. En: Castañeda, L. (primera edición), *Aprendizaje con redes sociales, tejidos educativos para los nuevos entornos* (17-39). Editorial MAD.
- Gómez de la Torre, V. (2015). *La filiación y la fecundación "In Vitro"*. [Tesis Doctoral, Universidad Complutense de Madrid]. <u>https://eprints.ucm.es/id/eprint/54045/1/5322941794.pdf</u>
- Kushner-Dávalos, L. (2010). La fertilización in vitro: beneficios, riesgos y futuro. *Revista Científica Ciencia Médica*, *13*(2), 77-80.
- Meirinhos, M. y Osório, A. (2009). Las comunidades virtuales de aprendizaje: el papel central de la colaboración. Pixel-Bit. *Revista de Medios y Educación*, 35, 45-60.
- Monsalve, M. (2008). Análisis de redes sociales: un tutorial. Bits de Ciencia, 2, 1-6.
- Moreno García, J. (2011). *Diseño, desarrollo e implementación de un prototipo de entorno virtual para una comunidad de investigadores en formación* [Tesis de Maestría, Universitat Illes Baleares].
- Ortiz, M. (2012). De la comunidad étnica a la comunidad virtual: breve revisión del concepto comunidad en tres de sus acepciones y teóricos: Villoro, Ander- Eggy Rheíngold. *Cuadernos Interculturales, 10*(19), 113-135.
- Pazos, M., Pérez, A. y Salinas, J. (2001). *Comunidades Virtuales: de las listas de discusión a comunidades de aprendizaje*. V Congreso Internacional de Tecnología, Educación y Desarrollo Sostenible. <u>https://cutt.ly/zLqLGfZ</u>
- Rodríguez, J. y Rodríguez, L. (2020). La etnografía virtual como método de análisis de comunidades en línea. En: Capetillo, C., & Rodríguez, L. (Coords.), *Comunicación, cultura y sujetos en investigaciones en educación. En la búsqueda de sentido*, 107-129. Universidad Autónoma de Zacatecas.

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