



HEPATITIS AND BEAUTY SALONS
AS HEPATITES E OS SALÕES DE BELEZA
LAS HEPATITIS Y LOS SALONES DE BELLEZA

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ABSTRACT

Objective: to assess the knowledge of professionals of beauty salons about hepatitis B and C viruses and, using the information obtained, prepare an educational brochure addressing these pathologies, mainly targeted at the profile of this professional category. **Method:** exploratory study with a qualitative approach. Sixty-four beauty salons were visited. The research project was approved by the Research Ethics Committee, Protocol No. 146/10. **Results:** the majority of those professionals had knowledge about what hepatitis was. Another assessment showed that 64% of the manicurists had acquired knowledge about sterilization in training schools. Once again, this data demonstrates that the professionals are being trained; however, they do not use the knowledge on a daily basis during the performance of the activities. **Conclusion:** after the completion of this research, it can be considered that the participant population still had to go through a long process until reaching an acceptable level of procedures considered prophylactic. **Descriptors:** Hepatitis; Beauty and Aesthetic Centers.

RESUMO

Objetivo: analisar o conhecimento dos profissionais dos salões de beleza com relação ao vírus das hepatites e, através das informações obtidas, elaborar um folder educativo sobre estas patologias, voltado, principalmente, para o perfil dessa categoria profissional. **Método:** estudo exploratório com abordagem qualitativa. Foram visitados 64 salões de beleza. O projeto de pesquisa teve a aprovação do Comitê de Ética em Pesquisa, Protocolo nº 146/10. **Resultados:** a maioria dos profissionais atuantes nos salões visitados tinha conhecimento sobre o que era hepatite. Outra análise realizada demonstrou que 64% das manicures haviam adquirido conhecimentos sobre esterilização nas escolas de formação. Mais uma vez, isso demonstra que o profissional está se preparando; porém, não utiliza os conhecimentos no dia a dia durante a execução das atividades. **Conclusão:** com a realização desta pesquisa pode-se considerar que a população participante ainda tinha um longo processo a desenvolver até chegar a um nível aceitável de atitudes consideradas profiláticas. **Descritores:** Hepatites; Centros de Embelezamento e Estética.

RESUMEN

Objetivo: analizar el conocimiento de los profesionales de los salones de belleza con relación al virus de las hepatitis y, a través de la información obtenida, elaborar un folleto educativo sobre estas patologías, dirigido principalmente al perfil de esta categoría profesional. **Método:** estudio exploratorio con un enfoque cualitativo. Fueron visitados 64 salones de belleza. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, Dictamen N° 146/10. **Resultados:** la mayoría de los profesionales que trabajaban en los salones visitados tenía conocimiento sobre qué es la hepatitis. Otro análisis realizado demostró que 64% de las manicuristas había adquirido conocimiento sobre esterilización en los institutos de enseñanza. Esto demuestra una vez más que el profesional se está preparando, pero no utiliza el conocimiento habitualmente durante la ejecución de las actividades. **Conclusión:** con la realización de este estudio puede considerarse que la población participante aún tenía un largo proceso para desarrollar hasta llegar a un nivel aceptable de actitudes consideradas profiláticas. **Descriptor:** Hepatitis; Centros de Estética Y Belleza.

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INTRODUCTION

It is unquestionable that one of the greatest characteristic of humanity is the concern with the body and vanity. Proof of this need to feel well and within beauty standards is the demand for services and the time spent by women and men in beauty salons.

Currently, taking care of appearance is fundamental for acquiring respect and social status. However, non-compliance with guidelines, as well as with personal hygiene and proper hygiene of beauty salons may bring problems to the health of the population, causing damages of unimaginable proportions to public health.

At present, beauty salons are disseminators of hepatitis B and C viruses, which can be regarded as a serious public health problem in Brazil and in the world. The general population is not aware that manicure and pedicure procedures using pliers and other instruments in beauty salons, where the correct sterilization of materials is not performed, currently represent the highest incidence of hepatitis C transmission.

This index exceeds the rate of contamination after sexual intercourse, as well as that of drug use with needle-sharing, situations in which the population is already aware about the necessary care due to the transmission of the human immunodeficiency virus (HIV). The Ministry of Health recorded three thousand cases of hepatitis C in women in 2006.¹

Factors that contribute to the increase in direct contamination are: lack of information about the transmission, both on the part of professionals and the population; unpreparedness on the part of professionals to clean, disinfect, and sterilize correctly the materials used; professionals' negligence with regard to the use of personal protective equipment (PPE) suitable for performing their work; and lack of supervision by the National Agency of Sanitary Vigilance.

The choice to conduct a project with focus on hepatitis B and hepatitis C is due to the fact that they are very serious diseases. They remain in the carrier during years progressing quietly and enabling the transmission to other individuals who come into contact with the carriers' intravenous fluids. The numbers of individuals infected with hepatitis viruses increases every year. It is estimated that more than two billion individuals have been infected with hepatitis B virus at some point in their lives and approximately 350 million

have developed the chronic stage of the disease.²

In society, however, there is no comprehensive knowledge about this disease. The media does not provide adequate space for really enlightening campaigns addressing infection, prevention, severity, and symptoms of hepatitis B and hepatitis C. On the other hand, the competent national health agencies contribute gradually and insufficiently with respect to the development of educational projects addressing hepatitis in urban centers or schools, and also with respect to the diagnosis and healthcare provided to carriers of the disease.

The implementation of the present project intended to assess the knowledge of professionals of beauty salons with respect to hepatitis B and C viruses. In specific terms, the goal was to assess the knowledge about the means of transmission and prevention and draw up a brochure about hepatitis using the responses obtained through the questionnaires applied to these professionals. It is believed that these brochures will contribute as a basis for future projects that may be carried out by undergraduate students of the Federal Institute of Santa Catarina (IFSC), Joinville Campus, State of Santa Catarina, Brazil.

METHOD

The present study originated from the Scientific Initiation Research Project (CNPq/IFSC) entitled "Hepatitis and Beauty Salons" conducted from April 2011 to 2012. This is a research with exploratory focus and qualitative approach. With respect to the data source, it was based on literature and field research. This way, the implementation of the project involved distinct steps.

Initially, we carried out a bibliographical survey for assessment and study of the results obtained by authors who had previously addressed this issue. These data were confronted with the assumptions found, providing reflection and adequate knowledge about the topic addressed in the project.

Concomitantly with the bibliographic survey, we determined that the field research of the project would be implemented in Joinville, a city is located in the northern region of the State of Santa Catarina, southern Brazil. The project was approved by the Research Ethics Committee of the University of the Region of Joinville (UNIVILLE) under Protocol No. 146/10, through Ordinance No. 327/2010-PRPPG/CEP. An informed consent form was provided to the

participants and the goal of the research project was explained to the respondents.

Within this context, we limited the field research only to professionals of beauty salons who worked as manicurists and/or pedicurists in the afternoon. The salons were searched randomly to compose the sample needed for the research. We visited 64 salons considering that they were located within the boundaries of the following neighborhoods: América; Aventureiro; Bom Retiro; Costa e Silva; Irliriu; Jardim Irliriu; Pirabeiraba; Saguacú; Santo Antônio; and the city center, from April to June 2011. These dates refer to the application of the structured questionnaire composed of nine close-ended questions.

Through the field research, we sought to determine the knowledge that these professionals had about hepatitis, specially B and C types. We also intended to raise the profile of professionals working in beauty salons to serve as reference for the language used during the next step of the research.

This way, after the implementation of the field research, we started the process of interpretation of the data obtained through the questionnaire in search of information pertinent to the purpose of the research. Subsequently, we started the last specific goal of the study. Using the information, we initiated the preparation of an educational brochure based on information found through the questionnaires directed to manicurists/pedicurists working in beauty salons. Finally, it is worth pointing out that, for ethical issues, the salons and the identity of the professionals involved in this research were held in complete secrecy.

Beauty salons x health damage

The greatest possible care is not enough when dealing with the public, in particular when the service provided can endanger the health of both the customers and the professionals involved in the procedures. Serious and difficult to treat diseases such as hepatitis B and hepatitis C, acquired immunodeficiency syndrome (AIDS), infections, allergic reactions, poisoning, among other difficulties, may be acquired in beauty salons.

For example, hepatitis virus can stay alive up to 15 days inside a bottle of nail polish. It is extremely stable and can remain on the surface for up to a week.³ Pliers, spatulas and other contaminated materials can transmit hepatitis C. A little sting while having a manicure is enough to transmit the virus to the next clients of the day.⁴

Hepatitis is a silent disease that does not exhibit symptoms for years. To prevent its spread, it is important that procedures in beauty salons are performed in accordance with hygiene guidelines.⁵ The Ministry of Health recorded approximately 3.2 thousand cases of women with hepatitis C in 2006 and it is believed that part of them had been contaminated by sharing sharp objects, such as pliers. In addition to hepatitis, the individuals may be susceptible to infections and mycoses.⁶

According to Carlos Varaldo, chairman of the Optimism Support Group for Hepatitis C Carriers, manicure procedures performed in beauty salons using contaminated pliers and other instruments are the leading cause of hepatitis C transmission among women, whereas blood transfusion was the main cause for both sexes in the past.⁷

There are many other diseases that can be acquired in beauty salons. Incorrectly performed cleaning and/or lack of sterilization favor the proliferation of bacteria in the instruments, which could trigger the process of local infections in the customers.⁸

Onychomycosis is an infection caused by fungi that affect the nails. As well as hepatitis C, this infection is contracted by sharing contaminated pliers and scissors.⁷ Mycosis is not transmitted only in swimming pools and saunas. The collective use of manicure instruments is the quickest way to transmit the disease from one individual to another. In the skin, mycosis can cause desquamation, blisters and itching, usually in the soles of the feet. They can also leave the nails thicker, opaque, besides causing displacement.⁹ Mycoses may not lead to more serious health problems, but they are characterized as a great nuisance because they should be subject to long and difficult treatments.

Warts are also transmitted by virus and they may affect regions around the nails of the hands and feet. Any manicure instrument can transmit warts. The treatment can be considerably painful and time consuming, not to mention that warts can multiply in the skin.⁹

During a depilation session in beauty salons, the clients run the risk of contracting infectious diseases through blood. It is common to put the product used in this procedure in a pan to heat it in order to be used in multiple clients during the day. This process is extremely dangerous, because a customer may even contract the human papilloma virus (HPV) when undergoes depilation of the genital region with the same

wax used for the procedure in previous customers.¹⁰

In addition to all the diseases discussed above, there is still the problem of HIV, which can also be transmitted in beauty salons. This occurs mainly in professionals who do not use PPE and have contact with customers' blood. The contact with blood allows AIDS virus infection, but the risk of contamination is very low, since HIV cannot survive for long outside the human body.⁸

Hepatitis: history and concepts

Even without being aware about the existence of hepatitis viruses, they have been historically reported before the Christian era. In the modern era, other reports were made before the discovery of the disease, such as in military campaigns described in the 18th century. Hepatitis transmitted by human serum was first mentioned in 1883, when there were cases of jaundice in German workers during antivariolic vaccination. There are descriptions of the occurrence of jaundice cases after vaccination against yellow fever in the 1930s and 1940s, which caused concern in the population.¹¹

The first etiological agent of hepatitis was described in 1965, initially called Australia antigen (Hepatitis B), because it was found in an Australian aborigine.¹¹ Currently, it is known that viral hepatitis infection may occur in the body of any human being, regardless of age, sex, race, and socioeconomic status. Viral hepatitis is a frequent disease spread all over the planet, but prevention is possible.

There are many concepts of hepatitis, such as: hepatitis is a disease caused by various forms of viruses giving rise to liver inflammation.¹² Hepatitis means any liver degeneration due to several causes, the most frequent being infections by type A, B and C viruses and the abuse of alcohol or other toxic substances.¹³ Viral hepatitis is an infectious diseases of acute or chronic evolution that, due to high morbidity rate, constitute an important public health problem.¹⁴

In cases of viral hepatitis, it is not only important the number of individuals infected with the disease, but the state of the disease is initially assessed. It is observed whether it is in acute or chronic state. Hepatitis may manifest itself in several ways, ranging from an asymptomatic carrier to an individual that develops acute or chronic hepatitis, cirrhosis, and carcinoma.¹⁵ Yet, hepatitis can be characterized by acute or chronic intensity and the acute form can heal or evolve into the chronic form, which in turn can lead to cirrhosis or, more rarely, to liver cancer.

Acute hepatitis is characterized by emerging with similar symptoms to those of influenza virus in most cases, namely: malaise; pain; fever; nausea; and weakness. The symptoms can be varied and they may not emerge immediately, except in the most intense cases in which jaundice is evident in the patients. Acute severe hepatitis—called fulminant and subfulminant hepatitis—is rare. On the other hand, in chronic hepatitis, there is destruction of liver cells over the years, which undergoes a healing and regenerating process until reaching a threshold at which this process is no longer possible, thus evolving to cirrhosis that can be fatal.¹³

Types of hepatitis

The most common viral hepatitis is caused by A, B, C, D, and E viruses. They can be grouped according to the mode of transmission in two categories: parenteral/sexual transmission (hepatitis B, hepatitis C, and hepatitis D); and fecal-oral transmission (hepatitis A and hepatitis E). We focused on hepatitis B and hepatitis C because they were part of our object of study.

Hepatitis B

Transmission of hepatitis B virus (HBV) occurs through parenteral and, especially, sexual route, being considered a sexually transmitted disease. Mother-to-child transmission is also a frequent cause of HBV spread.¹⁶ The Ministry of Health estimates that, in Brazil, at least 15% of the population has already been in contact with hepatitis B virus and that 1% of the population has chronic disease relating to this virus.

Only 30% of the individuals exhibit the jaundice form of the disease clinically recognized. Approximately 5 to 10% of the infected adults exhibit chronification of the disease. The individuals continue transmitting the virus to other individuals. Infected individuals may have a period of one to six months between the phase of acquiring the disease and the appearance of the first symptoms.¹²

Preventive attitudes to avoid infection with the hepatitis B virus consist of using condoms during sexual intercourse (since the chances of being infected with hepatitis B through sex are greater than with AIDS), being vaccinated against hepatitis B, and never share syringes, needles, and manicure instruments. Health professionals or others who may have contact with bodily fluids of customers should always remember to use PPE, as recommended for their professions, and having been vaccinated.

Hepatitis C

Hepatitis C virus (HCV) was first identified in 1989 by Choo and collaborators in the United States. Transmission occurs primarily by parenteral route; however, the bibliography reports that it is not possible to identify the route of infection in a significant percentage of cases.¹⁶

Approximately 30% of hepatitis C cases are due to unidentified causes. For example, in dental treatment, contact with non-sterile dental material can cause serious problems, as well as the use of sharp equipment by hairdressers, manicurists, etc. Having a manicure requires special care. Ideally, customers should take their own instruments or watch how the professionals sterilize theirs.¹⁷

The incubation period can range from two weeks to six months. Almost half of individuals with hepatitis C becomes chronically ill facing periods of improvement and worsening.¹² There is no vaccine for the prevention of hepatitis C, but other forms of prevention should be followed, such as: abstinence or reduction of alcoholic beverages intake; weight and cholesterol control in order to decrease the likelihood of disease progression in case of infection; control of blood donors and the material collected; and, still, encouraging proper sterilization of materials in hospitals, dental offices, beauty salons, and others.¹⁸

This form of hepatitis is highly related to contamination through blood transfusions, representing approximately 90% of hepatitis cases contracted through this procedure.¹² Unlike hepatitis A and hepatitis B, a large number of individuals who acquire hepatitis C develop a chronic and slow disease, and 90% of the cases are asymptomatic or exhibit very unspecific symptoms such as lethargy, muscle and joint pain, tiredness, nausea, or discomfort in the right hypochondrium. For this reason, the diagnosis is usually performed through examinations for blood donation, routine blood examination, or when symptoms of liver disease appear in the advanced stage of cirrhosis.¹³

RESULTS AND DISCUSSION

There were several ways to accept the participation in the research on the part of the professionals of the beauty salons during the application of the questionnaires. Initially, we approached those responsible for the salons in order to check the availability of participation and permission for approaching the employees who provided manicure services. Then, we approached the manicurists who should read and sign an

informed consent form keeping a copy for them and, finally, fill in the questionnaire.

It is worth mentioning that even performing in compliance with the above-mentioned methodology, only 49 (77%) out of the 64 salons visited and 89 out of the approximately 140 professionals who worked in those salons agreed to participate in the research by responding to the questionnaire. Some salons did not allow the contact between the researchers and the manicurists.

The 64 beauty salons were distributed in ten neighborhoods of Joinville, State of Santa Catarina, Brazil. These neighborhoods were: América; Aventureiro; Bom Retiro; Centro; Costa e Silva; Iriirú; Jardim Iriirú; Pirabeiraba; Saguacú; and Santo Antônio.

Many professionals did not accept to participate claiming overwork and lack of time for participation. They distrusted the research and its results and were afraid of complications at the workplace. They were also afraid that the researchers might be representatives of regulatory agencies (such as the National Agency of Sanitary Vigilance) or that they might have any connection with those agencies. The acceptance to participate on the part of all the manicurists that worked in each salon occurred in less than half the salons (47%).

This percentage demonstrates how it is necessary to provide health education to these professionals. Even being aware about the possibility of customers' contamination, the professionals preferred not to bring the issue to their professional context. This fact confirms the lack of ethics in this workplace and the need of applying educational materials for the professionals who provide services in this environment.

We noticed that there was rejection of the research on the part of many manicurists addressed due to the fact that the researchers were male and were not acquaintances of the participants (the researchers were not clients or friends of the manicurists). This way, it was determined that the researchers would address the manicurists accompanied by customers of the salons, which created more reliability on the part of owners and professionals and provided greater availability.

That way, it was possible to observe the distrust of the sector and the need that the researchers were accompanied by manicurists' acquaintances so that they could participate in the research. It is worth mentioning that the greatest rejection to participate occurred at a time when the researchers showed the

informed consent form and stressed the need of signing it. Even informing the participants that the secrecy was an ethical precept of the research and there would be no professional commitment with respect to the participation, many manicurists reported that they were afraid of filling in the document because it could mean bad quality in the professional activity or a case of complaint for the National Agency of Sanitary Vigilance. In addition, the embarrassment in case of disclosure of the responses was another justification for the non-participation of some professionals.

The questionnaires revealed the age group of the professionals who worked as manicurists in the salons of the

aforementioned neighborhoods of Joinville. According to the responses, the majority of the manicurists (40%) were within the range between 30 and 40 years of age, and 75% of the manicurists were within the range between 20 and 40 years of age. In addition, all the professionals were women.

According to the level of education (Figure 1), the majority of the manicurists who answered the questionnaire had complete secondary education. This way, it is concluded that the fact of having greater education level and being better prepared was an important factor so that these professionals were more willing and more motivated to participate in the research, realizing its importance for the job category and public health.

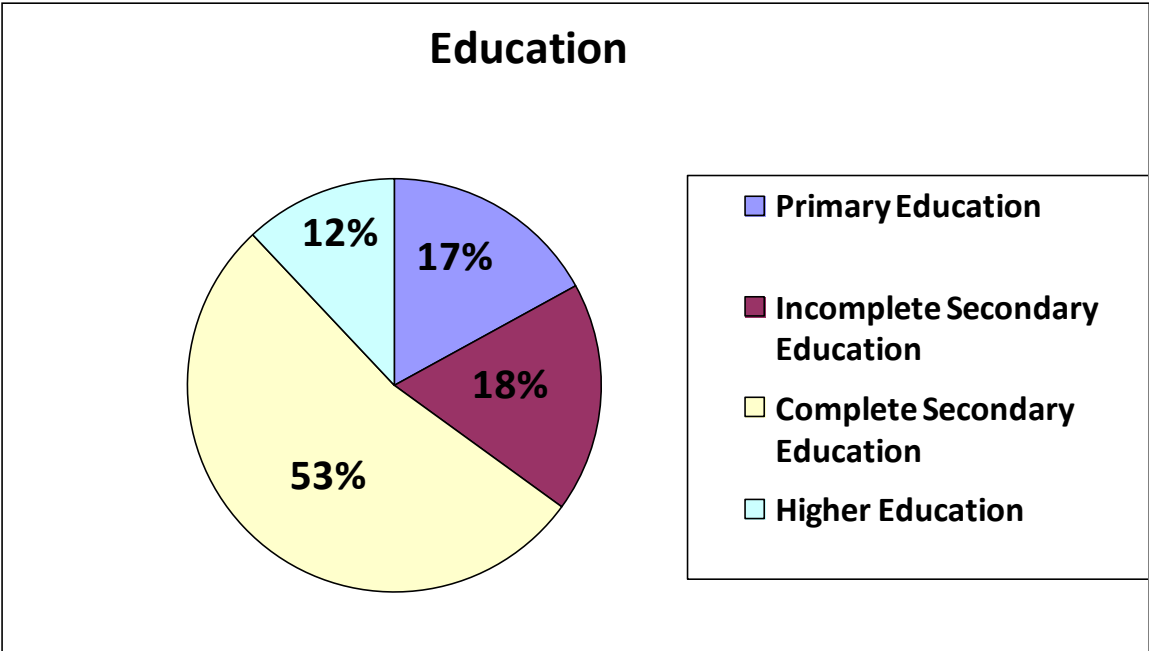


Figure 1. Education level.

These data also allowed the researchers to use a more specific language and with less ludic information in the educative brochure about hepatitis for professionals of beauty salons.

A relevant finding was the large number of professionals surveyed working as manicurists who, even having complete higher education, did not perform in their area of study. These professionals stated that they were unprepared to respond to specific questions about hepatitis claiming that they had not been performing for a long time or had no plans to continue working as manicurists, thus justifying their lack of knowledge due to the disinterest in this service. However, it was observed that many professionals had been working for some years in the area. Only 10% of the professionals had been working for less than a year and 43% of them had been working between one and five years in beauty salons. As a result, these professionals work as

manicurist for a longer period of time than planned at the beginning of the profession; however, they do not seek knowledge needed for their activities over the years.

The vast majority of the professionals assessed were aware about what hepatitis was. Among the participants, 83% responded that hepatitis was characterized as liver inflammation. Still, 11% responded that they did not know what hepatitis was. This is a worrisome finding, because as they did not know the significance of the disease and its features, they would probably not know the measures that should be taken to avoid contamination. Therefore, 96% of the responses revealed that the population assessed was aware about the source of contamination of hepatitis B and hepatitis C.

Other finding was that 64% of the manicurists had acquired knowledge about sterilization in training schools. Once again, it has been shown that the professionals are

being prepared; however, they do not use the knowledge on a daily basis during the performance of the activities.

Other relevant information obtained through the questionnaires is that the manicurists were not being properly sensitized with respect to the importance of vaccination against hepatitis B. Figure 2 illustrates that only 48% of the professionals assessed had been vaccinated against hepatitis B. Therefore, 52% had not been vaccinated or

did not know whether they had. This fact demonstrates the lack of concern on the part of these professionals with respect to their own health, thus spreading the disease in many cases.

"Infectious diseases, especially hepatitis B, currently stand out when related to accidents at work involving biological material and, for this reason, prevention should be primarily occur through vaccination".^{19:85}

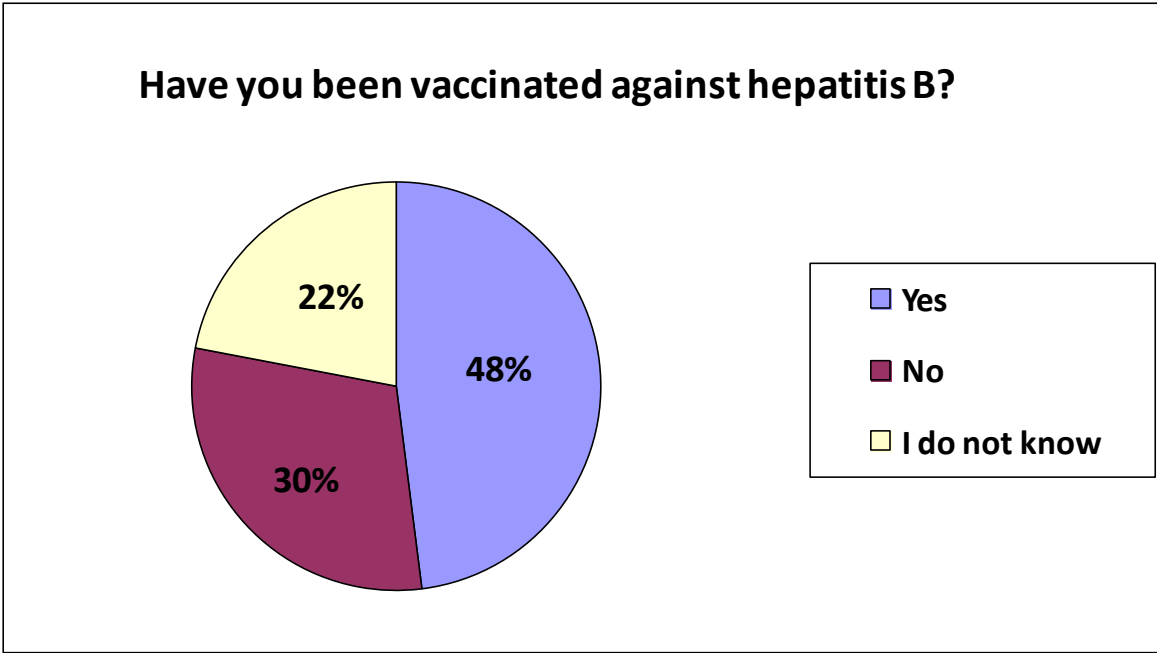


Figure 2. Information about vaccination.

To end the application of the questionnaire, we asked how long the material should remain in the sterilizing oven after its use to be properly sterilized before being used in another client. Three alternatives were mostly answered and the majority of the respondents (39%) answered correctly. Very close were the manicurists who responded that the material should remain in the sterilizing oven for two hours (32%). However, more worrying was the number of manicurists who responded only 30 minutes, which corresponded to 21% of the respondents.

Therefore, based on the information collected, we initiated the preparation of the educational brochure about hepatitis and beauty salons using a word-processing software (Microsoft®). Firstly, we separated a few sentences and epidemiological data on hepatitis which should be in the brochure. This information was included in a section called "Did you know?" which was drawn up with the aim of sensitizing the readers about the need of healthcare relating to hepatitis.

Subsequently, we listed the information that had generated more disparity in the

questionnaire. If the brochure was prepared with the intention of educating professionals and customers of beauty salons with respect to hepatitis, it should contain responses to the main questions proven by the questionnaires.

To that end, the following issues were highlighted in the brochure: sterilization of materials; need of vaccination against hepatitis B; information about hepatitis B and hepatitis C; educational tips for professionals and customers for prevention of diseases in beauty salons; and, yet, guidance on the organization of the "manicure kit" for customers.

CONCLUSION

After the completion of the present research, it can be considered that the participant population still had to go through a long process until reaching an acceptable level of procedures considered prophylactic.

Currently, it is possible to observe a considerable imbalance in the knowledge of the professionals working in beauty salons, between their concern and knowledge about hepatitis and other diseases that are part of their professional daily life.

Some of the beauty salons assessed showed total lack of attention to the problem. Few beauty salons refused to participate in the research; however, the existence of that portion demonstrates that there is much to be done with respect to health education of the population. Other beauty salons that opened their doors to the researchers had unprepared professionals and without ideal work conditions.

This situation is a reflection of the information provided throughout the bibliographic review performed, which stated that hepatitis is a silent and severe disease that is spread across the planet.

Sensitizing individuals about the importance of basic care is an extremely important factor to decrease and control this epidemic. This way, it is considered that the preparation of the brochure was an experience to encourage the paradigm shift of these professionals who started thinking and discussing about hepatitis after the application of the questionnaires. It should be noted that the use of the brochure in beauty salons can also encourage customers to watch the professionals in order to require a performance in compliance with the necessary biosafety techniques for the profession.

Professionals should seek knowledge through continuing education, which will allow providing a better service to their customers, in addition to generating greater commitment and responsibility with respect to public health.

As a contribution to carry out further studies, we suggest that health education is provided to the professionals of beauty salons. The questionnaires applied made it clear that the professionals assessed were not aware about the need of learning about health-related topics.

Therefore, the present project brings several benefits, such as: diffusion of the hepatitis issue in the social conviviality; approach to the topic among the professionals of beauty salons; promotion of auto-reflection on ethical attitudes on the part of professionals of beauty salons; diffusion of the forms of infection and disease prevention; reduction in the spread of the disease and, consequently, reduction in public expenditure relating to complex treatments required by the disease and, yet, expenditure relating to hospitalizations, surgeries or liver transplants due to complications caused by hepatitis, such as liver cancer; and, at some time, improvement in the quality of life of the population that will have possible decrease in cases of hepatitis B and hepatitis C.

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