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Liquid modernity: challenges for health education in the context of vulnerabilities for sexually transmitted infections

Modernidade líquida: desafios para educação em saúde no contexto das vulnerabilidades para infecções sexualmente transmissíveis

Modernidad líquida: desafíos para la educación en salud en el contexto de las vulnerabilidades para las infecciones de transmisión sexual

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ABSTRACT
Objective: to understand the meanings that the multi-professional health team attribute to Information and Communication Technologies (ICT) for health education in the context of STI/AIDS. **Methods:** qualitative research using the Grounded Theory methodology, which theoretical framework was the liquid relations of Bauman. A semi-structured interview was conducted with 10 professionals from the multi-professional team of an STD/AIDS Program, in the period of May and June 2019. The project was approved by the Research Ethics Committee. **Results:** the multi-professional team perceives IST/AIDS vulnerability in young adults correlating with the fluidity of relationships in the contemporary world. **Conclusion:** there is a need to strengthen public policies that consolidate the promotion of sexual health, especially in the young adult population. The research raises the possibility of the health multi-professional team to use the ICT as strategies for sex education, particularly virtual media, aiming to the prevention of STI /AIDS.
Descriptors: Nursing; health education; internet; sexually transmitted diseases.

RESUMO
Objetivo: compreender os significados que membros da equipe multiprofissional de saúde atribuem às tecnologias de informação e comunicação para educação em saúde no contexto das infecções sexualmente transmissíveis (IST) e Síndrome de Imunodeficiência Adquirida (AIDS). **Método:** pesquisa qualitativa cujo referencial teórico foram as relações líquidas de Bauman e o referencial metodológico a Teoria Fundamentada nos Dados. Realizada entrevista semiestruturada com 10 profissionais de um Programa de prevenção das IST/AIDS, no período de maio e junho de 2019. O projeto foi aprovado por Comitê de Ética em Pesquisa. **Resultado:** a equipe multiprofissional percebe vulnerabilidade para IST/AIDS no público adulto jovem correlacionando com a fluidez dos relacionamentos na contemporaneidade. **Conclusão:** urge o fortalecimento de políticas públicas que consolidem a promoção da saúde sexual, em especial, ao público adulto jovem. A pesquisa suscita a possibilidade de a equipe multiprofissional de saúde utilizar como estratégias para educação sexual as mídias virtuais com vistas à prevenção de IST/AIDS.
Descritores: Enfermagem; educação em saúde; internet; doenças sexualmente transmissíveis.

RESUMEN
Objetivo: comprender los significados atribuyidos por los profesionales del equipo multiprofesional de salud a las tecnologias de informação e comunicação (TIC) para educación en salud en el contexto de las ETS/SIDA. **Método:** investigación cualitativa cuyo marco teórico fue las relaciones liquidas de Bauman y el marco metodológico la *Grounded Theory*. Se realizó una entrevista semiestructurada con 10 profesionales del equipo de un Programa de ETS/SIDA, en mayo y junio de 2019. El proyecto fue aprobado por el Comité de Ética en Investigación. **Resultado:** el equipo multiprofesional percibe vulnerabilidad para ETS/SIDA en el público adulto joven correlacionando con la fluidez de las relaciones en la contemporaneidad. **Conclusión:** urge el fortalecimiento de Políticas Públicas que consoliden la promoción de la salud sexual, en especial, en el público adulto joven. La investigación suscita la posibilidad del equipo multiprofesional de salud utilizar como estrategias para educación sexual las TIC, en especial, medios virtuales con miras a la prevención de ETS/SIDA.
Descriptores: Cultura organizacional; seguridad del paciente; hospitales; calidad de la atención de enfermería.

INTRODUCTION

According to the *Joint United Nations Program* on HIV/AIDS (UNAIDS), 36.9 million people live with the Human Immunodeficiency Virus (HIV) worldwide, but a quarter of those individuals ignore that they have the virus. Regarding Latin America, the UNAIDS report showed that, in 2017, approximately 1.8 million people lived with HIV, but only 1.1 million were able to access antiretroviral therapy. In that year, 100,000 new cases of HIV and around 37,000 deaths from the disease were reported. Specifically regarding young adults and adolescents, around 1.6 million young people live with HIV around the world[1].

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In Brazil, between 1980 and June 2018, 982,129 HIV cases were identified; however, only 926,618 were reported, with 606,936 (65.5%) cases in men and 319,682 (34.5%) in women. The highest concentration of cases of Acquired Immunodeficiency Syndrome (AIDS) in Brazil is in individuals of both genders[2] aged between 25 and 39 years old. Added to this problem is the fact that the number of deaths due to AIDS among adolescents and young people has more than doubled since 2000[3].

Still from the national perspective, in 2018, for the age groups of 20 to 29 years old, the detection rate among men is higher, being three times higher than among women. This shows that if such a situation persists, many young adults may be infected with HIV over the next few years and there will be a continued increase in deaths linked to AIDS in this population, which is a worldwide concern[4].

This reality can be thought from the behavioral dynamics of the people regarding vulnerabilities, despite the behaviors that enhance risks, uncertainties and illusions related to Sexually Transmitted Infections (STIs)[5]. When it comes to social dynamics, it is necessary to contextualize it, repositioning it in post-modernity itself. Thus, it is worth highlighting the implications of what Zygmunt Bauman considers as liquid relationships, one of the elements that characterize the malaise of post-modernity. Liquid relationships consist of intentionally fragile interactions, without deepening affection and accountability[6].

Hence, it is worth to highlight the context in which humanity has increasingly been living – the context of Information and Communications Technologies (ICTs) and human interactions. These spaces can be seen as vulnerability enhancers, but they can also enhance health education, for example. Therefore, the question is the following: What meanings do health professionals attribute to the use of ICTs in health education in the context of STI/AIDS-related vulnerabilities?

Hence, the objective was to understand the meanings that professionals from the multidisciplinary health team attribute to ICTs in health education in the context of STIs/AIDS.

LITERATURE REVIEW

The use of ICTs is a global reality, with some exceptions, as in 2013, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO), for the first time in history, the number of connected mobile devices (mobile phones, tablets), with a higher proportion of smartphones, had exceeded the number of people in the world[7]. In Brazil alone, it is estimated that, as of the end of 2015, 46.7 million people had a smartphone, which is equivalent to six million more than the previous year[8].

At this juncture, among the most used social media, *Facebook* stands out, since in Brazil approximately 110 million people have an account on this social media[8]. Additionally, although this social media is mostly accessed from a computer, it is estimated that this access pattern will change soon, allowing the rise of the smartphone as the main access/accessibility technology for this purpose.

Therefore, the use of these devices can remodel the meanings of and behaviors for liquid relationships[9] based on the safety or distance that these interactions allow, or simply due to the ability to remain online or offline. In other words, relationships acquire behaviors that enhance or weaken interactions without the same commitments with which they occur in the *real world*[9,10].

Thus, just as the concept of health must go beyond the absence of disease, health care, aiming at promoting and recovering health and preventing risks and injuries, should not be limited to biological and procedural factors. In this sense, it is essential to consider that health care, as an intention and principle, should try to reflect improvements to the population. However, the patient (whether a person, family or community) is not dissociated from their contexts, which, in turn, influence behaviors in the health and disease process.

METHODOLOGY

An exploratory research with a qualitative approach. The Grounded Theory (GT) was used as a methodological framework. GT is a research method that uses intense comparative analysis in all its analytical phases, which aims to achieve, in a systematic way, a theoretical matrix explaining the investigated phenomenon[11].

For data interpretation, *Zygmunt Bauman's* liquid relationships were used as a conceptual basis, based on the works liquid life[9], liquid love[12] and liquid fear[13]. This conceptual basis takes into account elements of post-modernity in which interpersonal relationships are, in general, intentionally established in a fragile way, but positioned in a context from which they emerge for the establishment of meaning among the people involved in the interactive processes.

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The participants of the research were 10 members of the multidisciplinary health team of an STI/AIDS Prevention Program, developed in the northern region of the state of Rio de Janeiro, Brazil, namely: two nurses, three psychologists, three social workers and two physicians. Inclusion criterion: working in the STI/AIDS Program. Exclusion criteria: professionals who were on vacation, on sick leave, or on other types of leave during the data collection period. It should be noted that the interviews were identified with the letters (M) for a physician (*Médico*, in Portuguese), (E) for a nurse (*Enfermeiro*, in Portuguese), (AS) for a social worker (*Assistente Social*, in Portuguese) and (P) for a psychologist, followed by the number of the meeting in Arabic numerals.

The participants were formally and individually invited. During the invitation, the objectives of the work were presented, as well as the rights of the professionals not to participate or to interrupt their participation at any time. On acceptance, meetings were scheduled to conduct the interviews with the participants individually and in a private place, at the time of their choosing. The meetings took place at the professionals' workplace to facilitate the process and to enable them to immediately leave in case of any complication and when their presence was essential.

The semi-structured interview was used as a data collection technique, between May and June 2019, in the research scenarios and in a reserved and calm environment, according to the availability of the participants. The interviews lasted 20 minutes, on average. Structured questions were asked and, depending on the need to expand the meanings that emerged from the testimonies, circular questions were asked. The data were recorded in digital media and later transcribed into a *Word* document.

Data collection was completed based on theoretical saturation, which consists, for GT, in the moment when the concepts are developed to the point of granting a capacity for theoretical abstraction that can explain, as a whole, the other research concepts, the investigated phenomenon[11]. Data analysis was guided by the coding process, which in GT consists of the comparative analysis in three levels: open, axial and integration[11].

About open coding, after the transcribed interview (raw data), a line-by-line analysis of raw data is carried out, where concepts are generated by comparing data properties and dimensions. Data property and dimension consists of elements that can be identified in a code to compare with other codes and, thus, establish possible connections between them to regroup them. In this phase, the preliminary codes appear. Before the preliminary codes, the comparison between them begins to group them in conceptual codes.

In axial coding, conceptual codes are grouped to originate categories and subcategories[1]. At this moment, the aim is to start the process of regrouping the data that were separated in the open coding, aiming at explaining the phenomenon. The integration phase consists of comparing and analyzing categories and subcategories; this process is carried out uninterruptedly and aims to develop the categories and to integrate and polish the theoretical matrix, resulting in the central phenomenon[11].

The categories were ordered according to the paradigmatic model that allows for an interactive connection among the categories that support the investigated phenomenon. Its structure is based on the following components: condition, actions-interactions and consequences.

The research project was approved by the Research Ethics Committee of the Anna Nery Nursing School of the Federal University of Rio de Janeiro (*Escola de Enfermagem Anna Nery da Universidade Federal do Rio de Janeiro*, EEAN/UFRJ), under No. 3,269,233 and by the Research Ethics Committee of the Federal University of Rio de Janeiro, Macaé *campus* (UFRJ/MACAE), under No. 3,327,211. Resolution No. 466/12 of the National Health Council was complied with. The participants' involvement took place on a voluntary basis, after clarification and after signing the Free and Informed Consent Form.

To preserve the confidentiality of the research participants, they were alphanumerically sorted, with initials that designate the profession and sequence of the interview in Arabic numbers. It is noteworthy that this article was extracted from the Master's Thesis entitled: Relationship apps in liquid modernity: challenges for care management in the face of sexually transmitted infections.

RESULTS AND DISCUSSION

About the characterization of the participants: the mean time of professional experience of the participants was 20.4 years. The mean length of time working in the STI/AIDS Program was 7.4 years. All professionals interviewed had expertise in their area.

The results of this article constitute a category entitled *Unveiling contemporary challenges for health education in the context of vulnerabilities in STIs: perception of the multidisciplinary health team*, which is divided into four subcategories: Pointing out fragilities in the knowledge of young adults about STIs/AIDS; Identifying vulnerable

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behaviors in young adults related to STIs/AIDS; Perceiving liquid modernity in interpersonal relationships; Facing new possibilities for health education: *Internet* and social media. The use of the paradigmatic model, mentioned in the research methodology, shapes the sphere of action-interaction.

Pointing out fragilities in the knowledge of young adults about STIs/AIDS

Data collection showed that the multidisciplinary health team found gaps in the understanding of young adults registered in the STI/AIDS Program about the prevention of STIs/AIDS. They also emphasize that the relapse/reinfection of these diseases is a common reality in this context, as shown in the following statements:

> *Young adults, despite having easy access to information about STIs, struggle with this information, and they also experience insecurity and instability in affective and sexual relationships. (M1)*
>
> *Patients do not know what the virus is capable of causing all those comorbidities in a living organism, everything that can happen in the drug interaction of the anti-retroviral therapy, so, in this way, they trivialize through superficiality what they know. (M2)*
>
> *The young people here in the Program have a hard time understanding the STD infection process. And then there are some very recurrent STDs, such as syphilis and HPV. (E2)*

The lack of condom use is related to the fragility in the knowledge about sexuality, which shows a high vulnerability to STIs/AIDS[14]. In this perspective, some studies with adolescents suggest that the health professionals need to understand the real health needs and to solve the doubts of this public that is initiating their sexual life, most of the time, in an accelerated way and without knowledge about prevention[15-17].

Data from a study carried out in Rio Grande do Norte with adolescents pointed out that they have inadequate general knowledge regarding STIs/AIDS, constituting important gaps in their sexual life. In this context, health professionals are crucial to clarify the questions of this specific public and to act as mediators to enhance the knowledge of prevention methods for safe sexual activity[18].

Identifying vulnerable behaviors in young adults related to STIs/AIDS

The Institute of Applied Economic Research (*Instituto de Pesquisas Econômicas Aplicadas*, IPEA) shows that for every 10 Brazilians, four are between 15 and 29 years old. Altogether, there are 50 million young people[19]. According to a study carried out by UNESCO, the main difficulty in the issue of STIs/AIDS is to reshape behavior, considering the singular affective aspects already rooted in socio-cultural standards[20].

On the other hand, youth is one of the most impetuous and rich periods of life, inviting experimentation and maturation. Therefore, it is a delicate phase with regard to infection by diseases, especially those that are sexually transmitted. This process is perceived by the multidisciplinary health team of the STI/AIDS Prevention Program, in the scenario listed, as illustrated in the statements below:

> *I think young adults are surrendering to the present, to impulses, to desires and are very little concerned with what might happen. (P1)*
>
> *Young people today build affective relationships that are increasingly fragile and superficial and this brings with it the issue of vulnerability to STIs, because uncommitted relationships, in the sense of knowing that there will be a beginning, middle and end, in this synchronism, by itself is already a risk factor for STDs due to the multiplicity of partners. (M1)*
>
> *I perceive a lot of vulnerability to STIs among young adults, mainly due to the number of sexual partners and to casual and unprotected sex. Every week there are several new STI cases that I monitor here in the Program. (E2)*

Young adults, throughout their lives, feel the need to confront, break down barriers and even transgress them, especially when they are inserted in certain social groups. Their need to discover the new and the feeling of invulnerability leads them to test limits that are consistent with the lack of concern with the prevention of diseases, especially those related to sexual health[21].

A study carried out with adolescents corroborates the results of this research, as it was found that the exercise of sexuality brings with it uncertainties and risks that are enhanced by the inevitability of knowing themselves and the other as an object of pleasure and desire[22]. In this context, the need for self-knowledge, associated with feelings of total power/omnipotence, create vulnerabilities to STIs/AIDS.

Perceiving liquid modernity in interpersonal relationships

Bauman characterizes interpersonal relationships in modernity as liquid relationships given the existence of a fragility, which is intended, established in personal interactions in the field of affectivity. This is because, according to

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this philosopher, the identity construction of individuals no longer occurs in a solid perspective, but in the ephemerality and intensity of human relationships[23].

Affective (and occasionally liquid) relationships in contemporary times are increasingly subjected to ephemerality thanks to the development of a *hi-tech* generation, which finds in the age of ICTs, especially mobile digital media (applications), a changing context for the establishment of uncommitted interpersonal relationships[13,24].

From data collection, it was possible to identify that the professionals who make up the multidisciplinary team of the STI/AIDS Prevention Program perceive the ephemerality of affective relationships in modern times and the consequent risk of being affected by these diseases. They also emphasize that the use of social media leveraged the possibility of interpersonal relationships and, as a reflex, the multiplicity of partners.

When accessing an online identity in these spaces, they end up not assuming a commitment to maintain interpersonal relationships, which seems to be a reflection of liquid relationships, that is, relationships nurtured in the field of uncertainties and of the intentional lack of affectivity[7,25]. It is noticed that the use of ICTs simplifies affective relationships, making them increasingly fluid and slippery. The following excerpts illustrate this view of the multidisciplinary team on the use of ICTs:

> *The Internet has made it easier for you to get to know more people, to get involved more quickly without even knowing much, without prior knowledge of that person, of the other, and you are already giving yourself away. (P1)*
>
> *The young adults we treat here in the Program have a substantial number of sexual partners, there are multiple partners constantly. Many use social media to meet people and this ends up favoring vulnerability to STDs/AIDS. (E2)*

An approximation of this reality can be seen in research studies that seek to redefine the subjectivity and uniqueness of the human being in the different patterns of individuality. It is noteworthy that studies seek to understand marital relationships today, as they are also susceptible to the ephemerality of cyber relationships that imply instability and volatility in love relationships[26].

Facing new possibilities for health education: the context of the Internet and of the social media

Health education can be understood as a resource intermediated by professionals who have scientific knowledge in the area of expertise, aiming at positively impacting people's daily lives, considering that understanding the conditions in the health-disease process offers means for the adoption of new habits and behaviors aiming at promoting health and preventing health problems[26,27].

Social media, anchored on the *Internet*, provide connections and interactions among individuals, who use a wide variety of resources. These resources include blogs, email, instant messages, text messages and posts, as well as programs that favor the sharing of digital information in audiovisual and text formats. Social media sites are part of these tools in easy-to-handle formats and allow users to choose how and with whom they will share their information[28].

A study found that contemporaneity favors the use of ICTs in health education practices with adolescents, especially social media, such as *Facebook, Twitter and Instagram*. These technologies can be used as a tool to discuss sexual health issues and issues related to prevention of STIs/AIDS, given that adolescence is a phase of life susceptible to different situations of vulnerability[29].

The statements presented by the study participants corroborate the importance of using social media to carry out health education, as can be seen below.

> *If we had a Facebook page or something, it might facilitate a team action and the access to information through the Internet. (AS1)*
>
> *There is on Instagram or Facebook a page of the Ministry of Health, and other media that work with prevention. (AS2)*
>
> *It would be great if the Ministry of Health supported this campaign and carried this banner so that the professionals involved in this segment could have access to these online spaces, since today it is very difficult to see a young person who does not have a social media; I think they would pay more attention to what a particular social media would offer than to what we, as health professionals, say during our conversations when we do health education and raise awareness to the prevention of STDs. (M1)*

Across the world, children and young adults enjoy opportunities to connect with each other and to share experiences and knowledge. In contrast, the United Nations Children's Fund (UNICEF) report revealed that the African continent is quite limited in access to the online world, and about 60% of adolescents and young adults do not have access to the *Internet*

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whereas, compared to the European continent, only 4% of this group do not have access. These findings show social inequality and the challenges of thinking about health education through the Internet in these locations[30].

UNICEF data shows that, worldwide, 71% of the young population (15 to 24 years old) is connected to the *Internet*. In Brazil, the 2013 *ICTs Homes* survey found that 75% of the teenagers aged 10 to 15 and 77% of the young adults between 16 and 24 are **Internet** users, and that the higher the family income, the greater the access to the Internet[31,32].

CONCLUSION

The multidisciplinary health team realizes that young adults who are undergoing treatment for STIs/AIDS have fragility in their knowledge about the transmission of sexual diseases and, therefore, reinfection by this group of diseases is common. In addition, it is noted that interpersonal relationships are increasingly fluid and slippery, a reflection of liquid modernity, which contributes to ephemeral (but intense) relationships.

The professionals involved in the relentless pursuit of prevention of STIs/AIDS and promotion of sexual health should seek health education strategies aimed at informing young adults about risky sexual activities and the multiplicity of partners. These strategies should use the *Internet* as a vehicle for the dissemination of knowledge, since it is a tool used by the vast majority of young people.

It was concluded that the health professionals value the use of ICTs as they present new health education strategies to overcome the fragility in the knowledge inherent in the STIs/AIDS prevention mechanisms.

Considering the role of the health professionals as natural educators, the urgency of developing preventive actions using social media (*Facebook, Instagram, Twitter)* is highlighted in order to establish information channels for the prevention of STIs/AIDS and for the promotion of health, aiming at strengthening the public policies focused on sexual health.

This study was limited as it focused only on an STI/AIDS Prevention Program present in one city, where human resources are scarce. However, the article reflects a local reality of great magnitude, with a view to contributing to the realization of new studies.

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