

Digital and social communication for engaging populations at risk of HIV/AIDS: Challenges and prospects for behavior change

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Abstract

Digital communication creates virtual spaces for information sharing, community engagement, as well as the mobilization and empowerment of individuals and communities. Social communication, in contrast, is grounded in human and civic values and takes into account the cognitive and psychological factors that shape individual and collective behaviors. Within society, people at risk of HIV/AIDS constitute a vulnerable population requiring social, psychological, and institutional support. Effective communication strategies rely on a thorough understanding of the psychological and social determinants that influence the behaviors of these populations, as well as on the use of persuasive and motivational approaches to foster intrinsic behavior change. The aim of this article is to examine the effectiveness and influence of digital and social communication in motivating individuals at risk of HIV/AIDS to adopt preventive health behaviors. It also seeks to describe the risk behaviors associated with HIV/AIDS exposure and to assess the extent to which digital and social communication can serve as effective instruments for promoting behavior change among vulnerable populations. The study adopts a qualitative approach based on the analysis of literature integrating social, psychological, communication, and institutional dimensions. The findings highlight the influence of multiple psychosocial, socioeconomic, and ecosystem-related factors on the behaviors of individuals at risk of HIV/AIDS. They also underscore the importance of integrating digital and social communication into comprehensive HIV/AIDS prevention strategies aimed at encouraging sustainable behavior change.

Keywords: Digital communication; Social communication; Vulnerable populations; HIV/AIDS; Behavior change

1. Introduction

Social communication is a relatively recent concept that emerged in France during the 1970s. According to the Social Info Dictionary, social communication, in its strict sense, is defined as the set of communication activities aimed at changing perceptions and behaviors or strengthening social solidarity. This form of communication serves multiple purposes. It seeks to raise awareness of social issues, empower individuals, promote values that reinforce networks of solidarity, and encourage changes in ideas or behaviors that pose risks to individuals or communities. Social communication is therefore grounded in humanistic and civic values and often aims to challenge or reshape the perceptions and attitudes of its target audience.

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for social communication to be effective, it must take into account the cognitive and psychological characteristics of the individuals or communities it seeks to reach. Its implementation generally involves two complementary stages: first, the development of a media campaign to increase the visibility of the message; and second, direct engagement with the target population to promote awareness, participation, and behavioral change. Furthermore, implementing a social communication initiative requires time, as changing attitudes or opinions is generally a gradual process. However, this dimension has been significantly transformed by the advent of digital technologies.

Digital communication refers to the digitization of information media (Gerard, 2014). According to Gerard (2014), “Digital communication defines, within a digital ecosystem, the communication strategy and the actions to be implemented across the web, social media, and mobile devices.” In this context, communication is no longer limited to the dissemination of information. It also seeks to stimulate the willingness to change and reflects an intention to shape perceptions, attitudes, and, ultimately, social reality.

Thus, given the persistence of high-risk behaviors that contribute to HIV/AIDS transmission and the ongoing challenges of raising awareness among vulnerable populations, digital communication and social communication have emerged as potential tools for prevention and community mobilization. However, despite the increasing number of information and awareness campaigns, the sustained adoption of preventive behaviors remains uneven across different social, cultural, and individual contexts. This raises an important question regarding the actual capacity of these forms of communication to influence the perceptions, attitudes, and practices of individuals at risk of HIV infection.

To address this research question, the study is based on the following hypotheses:

- H1: Digital communication and social communication positively influence the knowledge and perceptions of individuals at risk regarding HIV/AIDS.
- H2: The personalization of prevention messages, their simplicity, and their adaptation to the sociocultural context of the target audience promote the adoption of preventive behaviors.
- H3: The credibility of communicators and the extent to which individuals identify with communication sources enhance the effectiveness of awareness-raising and prevention campaigns.
- H4: The integration of social norms, emotional factors, and motivational mechanisms into communication strategies contributes significantly to behavior change among populations at risk of HIV/AIDS.
- H5: The combined use of digital communication and social communication has a greater impact on the adoption of preventive behaviors than the use of either approach in isolation.

2. Barriers to Communication with Individuals at Risk of HIV Infection

Epidemiological evidence indicates that HIV is not merely a physiological disease but also a social one. Indeed, its impact is distributed unevenly across different population groups due to a combination of behavioral, physiological, economic, and social factors. Despite significant progress in the comprehensive and integrated management of HIV, encompassing both medical and psychosocial dimensions, access to treatment remains a major challenge for HIV/AIDS prevention and control programs.

2.1. Risk Behaviors

Risk behaviors often reflect underlying personal tensions or difficulties related to education, socialization, socioeconomic integration, and cultural or social identity. In societies where socioeconomic insecurity continues to increase, vulnerability has become a central feature of individuals' lived experiences. According to Calvez (2004), people who use psychoactive substances often perceive their risk behaviors as a means of survival, with such behaviors representing adaptive responses to situations of distress or social suffering.

However, these behaviors tend to pose challenges that require prevention actors using digital and social communication to take into account the full range of difficulties faced by these populations, thereby leading them to adapt their intervention approaches and routine professional practices. Moreover, these behaviors call into question the ability of these actors to make sense of ruptures, rigidity, withdrawal, acting-out behaviors, and individual or collective crises, as well as their capacity to rebuild trust and sustainable social relationships with individuals at risk of HIV/AIDS.

2.2. The Influence of Individual Beliefs and Behaviors

According to the Health Belief Model (1950), a framework focused on human perceptions, attitudes, and behaviors, the determinants of the decision to act include the perception of a health threat and the belief in the effectiveness of the

action taken to reduce that threat. Similarly, according to Gaston Godin (2012), the Health Belief Model assumes that an individual is likely to engage in behaviors aimed at preventing a disease or an undesirable condition if they possess a minimum level of health knowledge and if they consider health to be a vital dimension of their environment.

2.3. Resistance to Change

One of the main difficulties in bringing about behavioral change in the environment lies in the fact that individuals often struggle to give up the immediate benefits (pleasure) associated with their risk behaviors, while tending to underestimate their potential long-term consequences. Drug use among adolescents is a clear illustration of this tendency, as beyond the transient pleasure it provides, consumption may be perceived as a symbol of entry into adulthood and as a means of facilitating peer socialization, among other functions.

According to Angel and Steiner (2013), the main studies on resistance to change address its social and situational determinants. This attitude of resistance is often seen as a consequence whose causes are rooted in organizational and managerial dimensions (Angel and Steiner, 2013). In this regard, Oreg (2006) suggests that the sources of resistance to change result from individuals' reactions to environmental stimuli and the influence of the change context.

3. The Contribution of Digital Communication and Social Communication

By taking into account the socio-cultural characteristics of individuals, these two forms of communication could have a positive influence on the behaviors of individuals at risk of developing HIV/AIDS

3.1. Personalization of Individualized Communication According to Age, Gender, and Personal History

For communication to be considered relevant, it must be personalized and adapted to its recipient. Numerous studies show that when patients receive personalized preventive advice, they are more likely to visit their physician for consultation (Takler et al., 2019) or to adopt preventive behaviors aimed at reducing health risks (Kreuter et al., 1999). The personalization of communication also contributes to making it more credible (Fonseca et al., 2021).

When a message is delivered in a non-personalized manner and recipients receive information that does not concern them, a backfire effect may occur, undermining the credibility of the sender and discouraging recipients from engaging with future communications. Personalized communication adapted to individual needs requires the collection of personal data and the establishment of an assessment of users' health status and expectations.

It may therefore be more appropriate to prioritize the information to be collected and to distribute it progressively as users engage with the digital platform, in order to avoid overwhelming them with communications and requests upon their first login.

3.2. Simplifying Access to Information

Once users have established the relevance of a communication, it does not automatically follow that they will read, understand, and retain its main messages. Many official or health-related communications are still delivered in overly complex ways or in jargon-heavy language, which limits users' ability to process and remember the information (Graham and Brookey, 2008). Studies also show that users are more satisfied and more engaged with digital platforms when these are easy to understand and use, and when they are written in accessible language (Antonino et al., 2020).

This simplification can commonly be reflected in both the way information is communicated and the visual design of the platform. In messaging, it may involve reducing text as much as possible by including only necessary and relevant information (Graham and Brookey, 2008). Furthermore, users are more likely to be motivated by the use of simple language that excludes technical or administrative terms and that takes into account both the cognitive and emotional dimensions of the recipient, by adopting a communication tone that is positive, supportive, non-authoritarian, and free from judgment and stigmatization (Wang et al., 2022). Adapting information to users' sociocultural context also enhances their trust and credibility in using the digital platform (Brehaut et al., 2016).

3.3. The Relevance of Messages Conveyed Through Digital and Social Communication

Once received by young people, messages should logically have an impact on their mental representations and encourage them to adopt the desired behavior. The relevance of communication must therefore be ensured in messaging in order to motivate young people to put the recommendations into practice. Furthermore, Bahi (2006) develops this perspective further, arguing that information influences attitudes, subjective norms, and self-efficacy expectations, that is, the very components of behavioral intention.

However, the individual's main concern lies in the effectiveness of communicative action, in decision-making, and in the transition from behavioral intention to actual behavior.

3.4. The Influence of Messengers on the Behaviors of Individuals at Risk of HIV Infection

The credibility of a message enables individuals affected by or at risk of HIV/AIDS to access more detailed information and makes them more likely to follow a recommendation depending on the characteristics of the source (the *messenger effect*) (Dolan et al., 2010; Wilson & Sherrell, 1993). Research has identified two main types of influential messengers:

- **Those perceived as credible or possessing expert authority:** Messages delivered or endorsed by recognized experts are more effective in promoting behavior change, particularly in the context of HIV prevention (Durantini et al., 2006).
- **Those who share similar sociodemographic characteristics with the target audience:** Testimonies from individuals who are perceived as “people like us” are often more effective than statistical information in encouraging behavior change (Borgida & Nisbett, 1977; Ubel et al., 2001). The more demographic characteristics the messenger shares with the recipient, the greater their ability to promote behavior change (Durantini et al., 2006).

3.5. The Role of Emotions in Preventive Interventions

Although providing objective information based on rational arguments and individuals' ability to understand it is essential, it is now well established that relying on emotions such as shame, disgust, fear, guilt, and similar feelings also has its limitations. Emotions are understood to serve several functions (A. Damasio, 1995, 1999; M. Mikolajczak et al., 2012, 2016), including an alerting and prioritization function, a reactive function, a communicative function, a moral function, and a learning function.

Recent studies in neuroscience suggest that “the use of emotions in large-scale awareness campaigns must be carefully calibrated to ensure that the interest generated is not merely temporary or driven solely by surprise” (Oullier & Sauneron, 2010). Furthermore, in psychology and cognitive science, researchers generally agree that emotions arise in response to a stimulus and are accompanied by physiological changes, behavioral responses, cognitive appraisals, and action tendencies that enable individuals to respond appropriately (Conty & Dubal, 2018).

3.6. Social Norms as a Source of Motivation

Human behavior is strongly influenced by perceptions of what others do and think. Social conformity refers to the tendency of individuals to align their behavior with what they perceive to be the norms of the social group to which they belong (Cialdini et al., 1993). Studies conducted among various patient groups have shown that the intention to undergo screening, for example, is influenced by:

- **The perception of what others do**, that is, the extent to which comparable individuals undergo screening (*descriptive norms*);
- **The perception of what others believe one should do**, that is, individuals' beliefs about society's expectations (*injunctive norms*) (Sieverding et al., 2010; Smith-McLallen & Fishbein, 2008).

Social norms are frequently incorporated into messages designed to encourage positive health behaviors. They are generally specific to a particular geographical area or local community. Indeed, the greater the perceived similarity between the individual and the social norm being communicated, the more effective this approach is likely to be (Goldstein et al., 2008).

3.7. Setting Goals to Motivate Action

Goal-setting theory posits that individuals are more motivated to act when they establish specific goals (Locke & Latham, 2002). Goal setting serves as a source of motivation by:

- **Directing attention** toward activities and information that are relevant to the goals being pursued.
- **Activating reflective thinking**, thereby increasing individuals' likelihood of seeking, developing, and applying strategies that can help them achieve their objectives (Ryan & Deci, 2000).

Within digital health applications and online health platforms, goal setting enables users to define their own health objectives. Consequently, they are better able to personalize the content they receive according to their specific needs and goals.

4. Communication for Behavior Change (CBC)

Communication for Behavior Change (CBC) is an interactive and integrated process embedded within a holistic program that promotes community participation. It is based on the development of targeted messages and personalized approaches using a variety of communication channels to encourage positive behaviors and support their sustained adoption.

More fundamentally, CBC represents a significant shift in communication practice—from initiatives primarily aimed at influencing individual behavior change to strategies that place equal or even greater emphasis on social and structural changes driven by communities themselves (Grey-Felder, 1999).

To enhance the effectiveness of HIV/AIDS prevention, awareness, and control campaigns, Communication for Behavior Change (CBC) aims to:

- Improve knowledge and stimulate dialogue within communities;
- Promote positive attitude change;
- Combat stigma and discrimination;
- Increase demand for information and health services;
- Raise policymakers' awareness of the need for appropriate HIV/AIDS policies and regulatory frameworks;
- Strengthen individual skills and self-efficacy.

5. Communication for Behavioural Impact (COMBI)

Communication for Behavioural Impact (COMBI) is a step-by-step, structured approach to the planning, implementation, and monitoring of communication interventions aimed at achieving health-related behavior change. To strengthen interventions in this field, the World Health Organization (WHO) has adopted this approach, which combines multiple communication channels and community mobilization strategies to support the desired behavioral changes.

COMBI serves as a structured framework for designing effective communication programs by strategically integrating a range of communication interventions. Its effectiveness lies in combining health promotion through Information, Education, and Communication (IEC), community mobilization, and the application of communication techniques derived from social marketing to achieve positive public health outcomes.

The ultimate goal of COMBI is to increase individuals' awareness and visibility of recommended positive behaviors and to motivate and support them in adopting and sustaining these behaviors (Parks et al., 2004).

6. The Role of the Socio-Ecological Model in the Interaction Between the Individual and the Environment

According to Bronfenbrenner's (1979) perspective, the environment is regarded, either explicitly or implicitly, as a fundamental mechanism in human development. The Socio-Ecological Model posits that the individual and the environment should be viewed as an integrated entity, within which a continuous bidirectional interaction exists between individuals and their surrounding environment.

According to this model, conceived as a set of interconnected spheres of influence, "an individual's behavior should be examined by recognizing the reciprocal influence of the multiple systems that constitute the ecological environment, as well as the characteristics of the individual" (Terrier & Halifax, 2017).

This ecological approach operates at social, community, family, and individual levels, in which the person is viewed as a system whose specific attributes are taken into account within this framework. It involves a complex interaction among five closely interrelated environmental systems: a) microsystem, b) mesosystem, c) exosystem, d) macrosystem, and e) chronosystem.

In this context, an online “virtual system” inspired by Bronfenbrenner’s original socio-ecological model could serve as a driver of behavioral change. Indeed, within such a virtual system, diverse ideas from around the world become accessible and have the potential to simultaneously influence individuals and social systems. Drawing on these various socio-ecological systems, communication is thus situated within a transactional perspective that promotes dynamic and reciprocal interaction between the individual and their environment (Anthony and Watkins, 2002).

7. Conclusion

Digital communication and social communication play a pivotal role in persuading individuals at risk of HIV infection. Through their ability to shape users’ perceptions, these tools have become powerful drivers of behavior change within this vulnerable population.

These two forms of communication, drawing on contributions from psychology and the social sciences, are effective in providing essential insights into individuals’ life trajectories and evolving contexts. Their influence could have a positive impact if combined with a societal maturity that genuinely supports the management of emerging medico-social risks faced by individuals living under the threat of HIV/AIDS infection.

However, the ethical dimension challenges designers of digital platforms to ensure the protection of privacy and the rights of this stigmatized population, in order to encourage their willingness to engage in behavior change conducive to risk prevention. In this regard, prevention must take into account individuals’ tendency to structure their life paths and lifestyles within sociocultural environments shaped by their behaviors and perceptions of reality.

Compliance with ethical standards

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Disclosure of Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Statement of Ethical Approval

This article is based exclusively on the analysis and synthesis of previously published scientific literature. It did not involve human participants, animals, or the collection of primary data. Therefore, ethical approval was not required.

Statement of Informed Consent

Informed consent was not required because this study did not involve human participants or identifiable personal data.

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