

Editorial

The promise and prospects of argumentation for public health communication

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Communication in public health

Over the past decades, health communication has become central to public health research and practice. There is a growing consensus that theoretical thinking about the communicative aspects inherent to our efforts to promote health and to protect the public can, for instance, guide the development and implementation of successful health campaigns and social marketing initiatives; aid the dissemination of risk information; contribute to legislation concerning commercial health messages; and improve the communication between individual health practitioners and their patients. Moreover, there is good scientific evidence that effective public health communication can affect health behaviors.

Argumentation in public health

Communication is thus not only considered instrumental but also essential in the endeavor to preserve and promote population health. Yet, what does good communication entail? While this question is undeniably intricate, it is the task of health communication scholars to continuously seek to piece the puzzle. This implies an exploration of communicative features that potentially affect message quality. One such feature that, thus far, has received relatively little attention is the inherently argumentative nature of public health communication. Scholars of argumentation define argumentation as *a verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a constellation of propositions justifying or refuting what is expressed in the standpoint*.¹ Thereby, argumentation is considered both a process (*i.e.*, a verb: *to argue*) and a product (*i.e.*, a noun: *an argument*). Most importantly, within this interpretation, argumentation does not refer to an act of quarreling or fighting, but to a constructive act of consensus-building through the use of both rational and effective arguments.

Argumentative discourse can be seen to play a key role in public health communication. Communication strategies within the health domain are, typically, aimed at reasonably and effectively convincing people to adopt, maintain, or refrain from certain behaviors. In public health messages, often a standpoint is propagated that takes the basic form (*do not*) *engage in behavior X*. Ideally, this standpoint is supported by arguments that are critically evaluated by a highly involved audience. However, whether or not the arguments are indeed critically evaluated, depends on the audience's level of involvement.² Low involvement may cause heuristic, peripheral processing of the advanced arguments – which potentially could form a hindrance to achieving rational acceptance of the propagated standpoint. A form of argumentation that is particularly prevalent in public health messages is pragmatic argumentation, in which a causal reference is made between the action described in the standpoint and its – positive or negative – consequences. In recent years argumentation scholars have prolifically explored the health communication domain in order to

strengthen their theoretical frameworks.³⁻⁵ Yet, there are several reasons why the application of insights from argumentation theory holds promise for public health communication researchers and practitioners as well.

Ideal model for public health argumentation

Traditionally, the study of argumentation has a strong normative component: philosophical reflection about the argumentative interaction between proponents and (potential) opponents of a standpoint is typically aimed at formulating ideal models of a critical discussion. In other words, argumentation theory aims to establish theoretical standards for rational and effective argumentation that results in reasonable agreement. Comprehensive theories, such as the pragma-dialectical theory of argumentation,¹ provide set rules as to what constitutes a reasonable argumentative procedure. Violations of these rules are conceptualized as hindrances of the resolution process and referred to as fallacious moves of argumentation. Such theorizing about argumentative discourse has value for public health research and practice as it may form the basis for the formulation of quality standards for reasonable (*i.e.*, acceptable) and effective argumentative strategies in the context of, *e.g.*, health behavior campaigns; direct-to-consumer advertising; and doctor-patient communication. For instance, in search of the latter, various scholars have sought in the past years to integrate concepts of argumentation theory and the shared decision-making model for doctor-patient interaction.⁵⁻⁹

Analysis and evaluation of public health argumentation in practice

Yet, the study of argumentation has potential for public health research and practice beyond offering a mere normative framework. Argumentation theory offers a descriptive tool that can be used to analyze and evaluate public health communication in practice. Both qualitative and quantitative methods can be used for doing so. Systematic argumentative analyses and evaluation of public health messages can be insightful in order to create an understanding of what goes on in empirical reality. By adding an argumentative component to the practical evaluation of, for instance, public health campaigns or the communicative interaction between individual doctors and their patients, we can identify potential hindrances to the persuasive process, which in turn may form an impediment to the adoption of health behaviors and, consequently, overall well-being.

Generating hypotheses about public health

argumentation and improving practice

It will not come as a surprise that, starting from a solid theoretical framework and empirical observations, also testable hypotheses can be generated concerning argumentative discourse in the context of public health communication. While it's not the task of normative argumentation theories to yield testable hypotheses (like social science theories), this does not mean that argumentation theory is not fit for doing so. These hypotheses may, for instance, focus on the perceived acceptability and effectiveness of certain arguments. Think of the general public's acceptance of, and intentions to follow up on, the advocated standpoint *you should wash your hands regularly* supported by the pragmatic argument *because this prevents the spread of the flu*. One could assume, for example, differences in the effectiveness of various presentation formats or stylistic devices when advancing this argument. Yet, it is also possible to generate hypotheses concerning argument salience. In doing so, argumentation theory can be used in conjunction with theories of persuasion, for example to shed light on the influence of framing and evidence types on both rational and irrational health behaviors. A good illustration of this is provided by a series of experiments conducted by Schulz & Meuffels,¹⁰⁻¹² who seek to explore the most opportune arguments and presentation modes to convince young women to adhere to breast cancer screening regulations. Lastly, also hypotheses concerning the potential effects of argumentation on health outcomes can be formulated. Does reasonable argumentation yield positive effects in terms of understanding, remembrance, and acceptance of health information? Contrarily, does fallacious argumentative have a negative impact? Are patients more satisfied when their doctors use arguments to support their claims and do they change their behaviors as a result? Recent studies suggest this is indeed the case.¹³ However, there are ample health contexts and outcomes that have remained unexplored.

Based on what has been said thus far, a promising prospect of integrating insights from the study of argumentation into public health, concerns the improvement of health communication in practice. On the basis of theoretical considerations, empirical observations, and experimental research, effective argumentation strategies can be determined to, *e.g.*, convince the public to take measures in response to a health hazard and to design appealing social marketing campaigns. One may also think of creating (continued) education programs for physicians in order to improve their effective argumentation skills. The first initiatives for this have, amongst others, been published in this journal.^{9,14} More so, argumentation courses could be developed to enhance patient empowerment, involvement, and decision-making skills. After all, when patients are not equipped with good argumentation skills, achieving true patient autonomy seems hardly feasible. Lastly, the latest insights yielded by argumentation research can be used to inform and re-evaluate the legislation concerning commercial health messages, such as direct-to-consumer advertising.

Facilitating public health argumentation through intelligent designs and decision-making aids

Finally, I would like to address an exciting, practical application of argumentation in the public health context that has remained untouched so far: argumentation theories can be used to facilitate health communication through the development of intelligent decision-making systems as well as practical decision-aids. Digitalized diagnostic and treatment decision-making tools that build on argumentative models can help doctors to quickly use logical deductions and

draw accurate medical conclusions. Several scholars have discussed the use of argumentation theory to design intelligent decision-making systems.^{3,15} However, thus far, comprehensive theories of argumentation theory have not yet been formalized for use in the medical context. Moreover, to the best of my knowledge, the potential of argumentation in the development of practical decision-making aids for patients has not yet been addressed. The potential of argumentation for such facilitative purposes deserves further exploration going beyond the boundaries of disciplines.

Concluding remarks

In conclusion, it can be said that argumentation and the study thereof holds promise for public health communication – both in terms of research and practice. Alone, or in conjunction with other theories and disciplines (*e.g.*, persuasion, artificial intelligence), argumentation theory can be used to understand, analyze, predict, improve, and facilitate the communicative interaction in the several sub-domains of public health. Thereby, it holds the promise to contribute to improving the efficacy, effectiveness, and efficiency of public health interventions and to, ultimately, better health outcomes of populations.

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