

### RESEARCH ARTICLE

# The Withering Away of the Physician in Medical Sociology: Medicalization, Biomedicalization, and Pharmaceuticalization

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#### Abstract

Sociological research on medicine was initially conducted by locating physicians as the key decision-makers on health-related issues. This approach, which was furnished by the assumptions of the postwar sociology of professions, has led to a medical sociology that has rather limited space for the patient's role in the health care process. With the emergence of a critical stance towards experts and the entire technocratic edifice of modern societies in the 1960s, medicine's role in society became a key issue of discussion, and physicians were once again located at the forefront of the analyses on the process of medicalization, which denotes the expansion of medicine's jurisdiction in terms of determining the "right" way of living. The medicalization process and the key role physicians play in it were questioned from the 1980s onward with new studies in medical sociology which started to pay more attention to the role of bureaucratization and commercialization of health care, patients' influence in medicalization and the increasing influence of technoscientific advancements in shaping medical practice and our conception of health and disease in general. These new concerns have brought about new theories like biomedicalization and pharmaceuticalization, with which physicians have started to wither away in medical sociology.

**Keywords:** Professional dominance • Medicalization • Biomedicalization • Pharmaceuticalization • Medical sociology • Sociology of science and technology

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The relationship between medicine and society has long been a key issue of discussion in both academic literature and popular media, owing to the immediate impact of medical knowledge on human life. Medicine's involvement in human life has long exceeded the boundaries of the sickness experience and started to shape the way we define all segments of our lives, from eating habits and preferences for recreational activities to the overall spatial and temporal organization of our everyday lives. Biomedical advancements promise a future that will provide us with new means to define ourselves, to identify the biogenetic factors which make us who we are, and even to "enhance" ourselves or our descendants. In addition, factors like climate change and overpopulation have provided suitable conditions for pandemics and other health-related risks, which have contributed to the expansion of the role of medical science and expertise in policymaking. All these developments have underlined the importance of how to define health and illness, who should be responsible to make decisions regarding the organization of human life to reduce health-related risks, and how to proceed with the current biomedical advancements in social, political, economic, and ethical terms.

The sociological take on the relationship between medicine and society was primarily shaped by the assumptions which were prevalent in the postwar sociology of professions, where medicine was regarded as the quintessentially professionalized field, with physicians as the key figures. Talcott Parsons's emphasis on "disinterestedness" was a key ingredient of the sociological conceptualization of professionalism: "The professional man is not thought of as engaged in the pursuit of his personal profit, but in performing services to his patients or clients, or to impersonal values like the advancement of science" (Parsons, 1939, p. 458). Greenwood points out that the professionalism of an occupation is a matter of degree in that what distinguishes those occupations which are regarded as professions is the extent to which they require superior skills, have authority over the "clients," have a monopoly over education and practice, have a code of ethics, and have a distinct culture (Greenwood, 1957). In other words, with all their privileges and responsibilities, becoming a profession is a matter of achievement whose conditions can only be met by certain occupations. Wilensky stated that the efforts of other occupations to gain professional status have largely been "opportunistic" attempts to enjoy the advantages of monopoly and that these attempts are mostly destined to fail since those less professional occupations are either too specific or too general to claim an autonomous domain (Wilensky, 1964, p. 157). In the medical literature, the high status of physicians and the privileges of the profession, like autonomy, have been regarded as one side of the "social contract" according to which physicians should meet the expectations of society, which include not only professional competency but also moral qualities like altruism (Crues & Crues, 2000, 2004; McCurdy et al., 1997; Welie, 2012).

The main purpose of this study is to illustrate the gradual disappearance of physicians as key actors in the sociological analyses of the relationship between medicine and society. This transformation can be explained by factors that are related to the changing conditions of medical practice along with emerging theoretical tendencies in sociology. The transformation of the organizational structure of medical practice, the commercialization of health care, and the changing expectations of patients have been regarded as key factors among others which threaten the medical profession. Physicians tried to tackle the problems of their profession with a ‘new professionalism movement’ starting in the 1980s, which called for paradigmatic changes in both medical education and practice (Arnold, 2002; Irvine, 1999). The movement, which was led by key medical bodies in the United States, Canada, and European countries, culminated in the 2002 *Physician Charter*, which expressed the concerns of physicians about the harmful impacts of “changes in the health care delivery system in virtually all industrialized countries” on the values of professionalism (ABIM Foundation. American Board of Internal Medicine, 2002, p. 243). However, the movement had emerged in a period when “sociology’s interest in the topic of medicine’s professionalism prospects began to wane” (Hafferty & Castellani, 2011, p. 202). The changing landscape of social theory in the 1980s fostered new approaches to health and illness along with bolder attempts to investigate science and technology. As a result, physicians started to lose their position in medical sociology literature. In this study, the withering away of the physician in medical sociology will be investigated with reference to the debates on the medicalization thesis, which became prominent in the sociological literature in the 1970s, and the attempts to overcome certain limitations of medicalization from the late 1990s on with the introduction of the concepts of biomedicalization and pharmaceuticalization.

### **Medicalization and the Professional Dominance**

As an extension of the changing public perception of the conventional institutions of modern societies in the 1960s, the belief in the coincidence of the interests of physicians and patients was replaced by a critical stance towards medicine in sociology and in the public eye in general. The strength of the medical practice against its traditional rivals was its scientific character, and this was a time when heated discussions on the issues like the questionable allocation of research budgets and the impacts of science and technology on nature had emerged and an overall feeling of unease toward technocratic culture in advanced countries was widespread (Mulkay, 1980; Roszak, 1969). On the side of the medical profession, these transformations meant that the terms of the aforementioned contract between medicine and society were no longer valid. The previous status of the medical profession had been challenged by the expansion of the involvement of the public and private sectors in healthcare along with the changing expectations of a diverse society (Barondess, 2003; Cruess & Cruess,

2000). Physicians retained their position as the key figures of health-related processes, though this time with an emphasis on the dark side of their monopolistic position.

Changing perceptions of medical practice brought about calls for replacing the “disinterested” professional of Parsons with a new conceptualization, which was championed by Freidson (1970) in his “professional dominance theory.” According to this theory, professions gain their autonomous status and the authority to construct reality within their domain by proving their proficiency and persuading the public of their ethical standing in providing services. This depiction of the medical profession was in line with the rise of social constructionist approaches in sociology in the late 1960s, especially in the social problems literature, which criticized the then-predominant functionalist approach to deviance. Contrary to functionalist concern for the “etiology of deviant behavior,” the constructionist approach was informed by a new perspective that focused on its “social history” (Erikson, 1962, p. 307). This new perspective initiated a discussion in the sociology of social problems that was criticized for regarding social processes which define certain conditions as social problems to be “objective conditions” and failing to identify these problems themselves (Blumer, 1971, p. 298). The new orientation defined by these researchers had led the way to a constructionist approach to deviance, which refused to take for granted the existing social norms as objective reference points for analyzing the etiology of deviant behavior and preferred to focus on the processes by which particular behaviors or conditions are labeled to be dysfunctional or pathological. The constructionist perspective provided a fertile ground upon which the concealment of the social roots of health-related problems by the “medicalization” of particular conditions or behavior can be historically investigated.

Michel Foucault’s historical analyses of medical knowledge have also been influential in the changing perception of the medical profession. In his early “archaeological” work, Foucault provides a distinctive account of the history of medical science, which leads the reader to believe that modern medical knowledge and its institutional setting are as arbitrary as the earlier forms of medicine (Dreyfus & Rabinow, 1983, p. 13). Foucault’s depiction coincided with the constructionist redefinition of the history of medical knowledge “as a belief system shaped through social and political relations” rather than “a given and objective set of ‘facts’” (Lupton, 1997, p. 99). In his more comprehensive analyses of the mechanisms of power in his later works, he locates medicine at the center of the power/knowledge couple he traces as the key element of modern society where a “political technology of the body,” whose boundaries exceed the functioning of the body, is at work and bodies are disciplined not necessarily by a dominant class by imposition, but more so by strategies which can be exercised by the dominated (Foucault, 1984, p.p 173–174). Although his later conceptualization of power, which depicts it as a “relation” rather than a

possession of a particular group or a tool of a particular political agenda (Lupton, 1997, pp. 99–100, Armstrong, 1983, p. 4), does not comply with the constructionist accounts on medicine which “link the ‘fabrication’ or ‘construction’ of knowledge to a more straightforward view of social interests and professional purposes” (Bury, 1986, p. 142), Foucault’s earlier work, which was first received with the anti-psychiatry movement at the background (Fox, 2016, p. 62), has become a part of critical approaches towards the relationship between society and medical science.

The concept of medicalization became popular in this setting and it has since been the keyword to frame the expansion of the domain of medical knowledge as a means for social control and policy-making. Critics usually refer to the World Health Organization’s 1948 Constitution, which defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2014, p. 1), as the first step towards the expansion of medicine’s jurisdiction from healing sick persons to defining a healthy way of life. The medicalization of life legitimized the expansion of the involvement of the healthcare system, medical professionals, medical technology, and drug industries in other domains of life in terms of redefining diseases and health (Fox, 1977; Huber et al., 2011). According to Zola, the shift from an etiological to multi-causal conception of disease also contributed to the use of medicine for identifying unhealthy preferences and habits of individuals, and thus, shaping various concerns of everyday life like dress codes under the guise of health reasons (Zola, 1972, p. 493, 497). As a result, medical professionals have become much more involved in the consultancy and treatment of habits or behaviors in various fields of life like sexuality and childhood behavior, even though medicine’s capacity to “cure” them has not been successfully demonstrated (Conrad, 1975; Riessman, 2003). Medicalization thesis claims that medical sciences have become central means for social control by enforcing certain criteria of healthy living conditions and by redefining certain behaviors which are regarded to be deviant as symptoms of particular diseases, and by doing so, shifting the role of detecting, observing, and “treating” these behaviors into the jurisdiction of medicine. Early proponents of the medicalization thesis argued that the enlargement of the medical domain results in the reliance of people on expert knowledge on the one hand and the depoliticization of the issue regarding certain behaviors or lifestyles by transferring the authority to take decisive decisions on these issues to medical professionals (Conrad, 1979; Pitts, 1968; Zola, 1972).

Researchers pointed to multiple causes of the expansion of the jurisdiction of medicine. The medicalization thesis was primarily developed by researchers who focused on the dynamics of the health care system in the United States, though researchers usually point out that there are similar trends in other Western countries. In short, medicalization is regarded to be caused by certain factors which vary in degree

and extension in other countries. Zola argues that medicalization has emerged as a result of “the reluctant reliance on the expert” by the masses in the “increasingly complex technological and bureaucratic system” (Zola, 1972, p. 487), which is coupled with people’s increasing need to “feel, look or function better” (p. 497). Marxist scholarship, on the other hand, focused on the capitalist character of the state, which determines the state’s policies on health care (Navarro, 1976). In this framework, the state’s policies have been in line with the interests of the “medical-industrial complex” and the medical ideology, which serves to maintain the “class structure and patterns of domination,” is responsible for medicalization (Waitzkin, 1978, p. 270).

Many researchers have pointed to modern medicine’s monopoly over decisions regarding health and disease as a key factor of medicalization (Conrad & Schneider, 1992; Fox, 1977; Nye, 2003). As the key figure of the professional dominance view, Freidson points out the medical professionals’ active role in the expansion of the jurisdiction of medicine by arguing that physicians seek out new diseases which will be identified by their names (Freidson, 1970, p. 252). However, it is not enough for a particular deviance to be of a biological origin for it to be defined as a disease. For sick persons to be regarded and treated as sick, the diseases which are believed to be causing their conditions should be socially defined as such (1970, pp. 208–209). Therefore, the physician’s quest for fame and glory cannot be achieved only by identifying the biological origin or mechanism of the disease: “Medicine, then, is oriented to seeking out and finding illness, which is to say that it seeks to create social meanings of illness where that meaning or interpretation was lacking before” (Freidson, 1970, p. 252). On the other hand, medicine’s autonomy along with its other professional privileges are not simply the rewards of its achievements. According to Freidson, medicine’s current status is a product of the interaction between the medical profession and “the sovereign state from which it is not ultimately autonomous” (Freidson, 1970, p. 24).

### **Critiques and Rectifications**

The medicalization thesis has been criticized from very different points of view from its early days on. Whalen and Henker criticize Conrad’s (1975) study of the “discovery of hyperkinesis,” for it unnecessarily describes the given case as one in which social and medical interventions are mutually exclusive. Arguing that both the medical approach, which explains the hyperactive child’s behavior on the bases of a problem “in the child,” and the sociological approach, which sees the source of the child’s problems “in society,” are both “monocular” views and should be replaced by an approach which focuses on “the interaction of child and context” (Whalen & Henker, 1977, p. 591). While Whalen and Henker’s argument might be defined as a critique of sociological reductionism, Strong (1979) launches an all-out attack on the entire

discipline of sociology. Approaching the medicalization thesis as a part of a wider sociological critique of “professional imperialism,” Strong criticizes the unreflexive character of this critique and argues that the medicalization thesis “exaggerates” certain trends in order to protect sociology’s own “imperial ambitions and opportunities” (Strong, 1979, p. 199).

The emphasis on the role of medicine in social control in the early versions of the medicalization thesis was also criticized for depicting medicalization as a one-sided and rigid process. According to Fox, medicalization was countered with a demedicalization process which was incited by those who criticize the overmedicalization of life through which conditions had been increasingly defined with diagnostic categories (Fox, 1977, p. 17). Fox’s critique, which turns its face towards the lay populace, has become more widespread in the later decades with objections to the negative depiction of medicalization in its initial formulations. The feminist critique offered new perspectives on medicalization by emphasizing medicine’s gender-biased approach to body and health. Modern medicine was primarily seen by feminist critics as a male-dominant field whose establishment as a profession with the requirement of a university degree was conducive to the exclusion of women healers for whom the opportunity for higher education was nonexistent (Ehrenreich & English, 1973). Issues like the gender- and class-biased aspects of the “biomedical rhetoric” on pregnancy (Barker, 1998), the discrepancies between the “biomedical discourse” and women’s own experiences in their transition to motherhood (Neiterman, 2013), and the clash between the biomedical definition of menopause as disease and the feminist definition of it as a natural process (McCrea, 1983; Meyer, 2001) have been among key topics in the feminist medicalization literature.

Feminist critique has opened the way towards a shift from the “gender neutral” conceptualization of medicalization towards a new formulation where women are not always “victims,” but in many cases the “actors” of the process (Riska, 2003). In an influential article that was originally published in 1983, Riessman points out that there has been “a fit between medicine’s interest in expanding its jurisdiction and the need of women to have their experience acknowledged” (Riessman, 2003, p. 57) and elaborates on how women’s demands for the involvement of medical expertise in issues related to childbirth, abortion, and contraception have contributed to medicalization. The new way of looking at the patient’s perspective is expressed in studies that define women’s preference to demand midwives in childbirth as a form of resistance to medicalization (Parry, 2008; Shaw, 2013). It has also been observed that the tendency among women in developed countries to “romanticize” the traditional birthing practices of women in the developing world brings with it calls for demedicalization which are not shared by the latter, who, in fact, “are much more vulnerable to dominant institutions, like medicine” (Johnson, 2008, p. 909). On the

other hand, studies on marginalized segments of developed countries also show that the impact of medicalization varies with one's social location and that it can be embraced or rejected strategically (Brubaker, 2007).

The reevaluation of the early formulation of the medicalization thesis in the 1980s produced new perspectives which appreciate lay persons' roles in medicalization and how they took advantage of the process (Ballard & Elson, 2005, p. 233). On one side of the issue, there has been a "consumer turn" (Figert, 2011) in the literature, which conceptualizes patients as consumers of health services whose demands and expectations have contributed to medicalization (Busfield, 2017; Conrad, 2005). In addition, unlike the early formulations, which emphasize the key role of professional dominance in medicalization, physicians are not always willing to label their patients as sick and contribute to the emergence of new sickness categories, as was observed in the case of chronic fatigue syndrome (Broom & Woodward, 1996). The so-called "health social movements" have also been regarded as an influential factor in medicalization. Organized patient groups are not only concerned with the inequality of and access to health care services, but also with challenging existing categorizations and treatments, and contributing to the production of new medical knowledge (Brown et al, 2004; Epstein, 1995). All these attempts were the indicators of an upcoming shift in medical sociology towards understanding the emerging trends in our conception of health and illness without the confinement of the classical and mostly one-sided relationship between patients and professionals and with an increasing emphasis on the increasing role of actors who are not the representatives of medical science and practice.

### **Physicians' Fall from Grace**

The commercialization of health care, the rising costs of medical services, and the emergence of a new type of patient who demands more from physicians were the leading factors, among others, which started to change the conditions within which medicine had been practiced in the better part of the twentieth century. These topics are generally discussed in medical sociology with reference to neoliberalism, though there have been variations in the meaning of the concept. Wacquant defines two main uses of neoliberalism. The first one is the economic conception, which focuses on the imposition of the market rule in organizing the previously non-economic forms of exchange. The second conception, on the other hand, is loosely based on Foucault's concept of "governmentality," and it is employed for describing a new form of political rationality that exceeds the boundaries of particular economic or political ideologies and functions without the constant presence of the state as the sole organizing factor thanks to its permeability into all forms of relationships (Wacquant, 2012, p. 68–70). Ferguson adds another conception of neoliberalism "as a sloppy synonym for capitalism itself" which appears as a vaguely defined causal factor that is imposed from outside

“to decimate local livelihoods” (Ferguson, 2010, p. 171). According to Bell and Green, such variations lead researchers towards reaching different, even opposing conclusions about the impact of neoliberalism on healthcare and question the usefulness of the concept altogether (Bell & Green, 2016, p. 240). Although concerns over the ambiguity of the concept of neoliberalism are valid, it is difficult to deny certain common themes on the global scale in terms of the organization of health care along with other publicly provided services. Among these themes, the most widely expressed ones are the commodification of healthcare, the dissolution of the idea that health and disease are related to the social environment, and the shift of health-related responsibilities to the individual (Coburn, 2000, p. 140; Mooney, 2012, p. 395; Viens, 2019, p. 148).

The threats regarding the organizational structure of medicine have been discussed under the titles of rationalization, bureaucratization, and commercialization. Although there have been variations in terms of how these processes have taken place in different nations, the increasing involvement of the public and private sectors in health care has brought about a different setting which is believed to be putting the professional identity of physicians in jeopardy. The changing organizational structure has brought about the standardization of procedures, the introduction of guidelines, performance assessments, and other features of bureaucratization. There has been an argument in the sociology of professions for a dichotomous relationship between the autonomy of professions and bureaucratization, whose origin is Parsons’s famous footnote in the *Introduction* he wrote for Weber’s *The Theory of Social and Economic Organization* (Parsons, 1947, pp. 52–53n) where he criticizes Weber for combining technical competence and bureaucratic efficiency which, according to Parsons, does not explain the authority of professionals. Using the case of physicians as an example, Parsons argues that patients usually follow their physicians’ orders because of the institutionalized belief that physicians utilize their technical competence for the benefit of their patients, rather than the positions physicians occupy in a Weberian type of bureaucratic organization. The relationship between the hierarchical authority of the Weberian type of bureaucracy and professional authority has been a subject of debate in sociological literature (Nass, 1986; Ritzer, 1975; Toren, 1976; Waters, 1989). Weber’s ideal-typical bureaucratic organization is based on a type of rationality that “aims to do nothing more than calculate the most precise and efficient means for the resolution of problems by ordering them under universal and abstract regulations” (Kalberg, 1980, p. 1158). The predominant view on bureaucratic domination in the sociological literature and the observation of the bureaucratization of medicine from the 1960s onwards has fostered various research on the impact of bureaucratization on medical practice (Engel, 1969; Hall, 1968; Mechanic, 1977; Racko, 2017; Ritzer & Walczak, 1988; Willis, 1978).

The commercialization or “corporatization” of medicine has been a parallel development that raised concerns about the future of the medical profession. The

involvement of the private sector and the emergence of a so-called “medical-industrial complex” (Relman, 1980) have raised questions about medicine’s capacity to work for the public interest. Corporatization not only brought with it a managerial control over medical practice, which threatens the autonomy of the profession (Feinglass & Salmon, 1990), but it also meant increasing involvement of private interest in public policy for health care, use of medical technology, and medical education both in and after medical school (Light, 1986; McKinlay & Stoeckle, 1988; Schofferman, 2011). As a result, commercialization is not only a problem for the image of the “disinterested” physician who puts the benefit of the patient above everything else. Perhaps more importantly, it effectively restructures the norms of medical practice starting from medical education.

Changing conditions of medical practice led to two views that opposed the professional dominance thesis, namely, “deprofessionalization” and “proletarianization” of medicine. As one of the leading figures of the deprofessionalization thesis, Haug (1975) emphasizes the significance of the “monopolization” of knowledge for professional autonomy and develops her thesis on the factors which threaten this monopoly. Contrary to the predominant belief of a dichotomous relationship between professionalism and bureaucratization, Haug believes that the employment of medical professionals in bureaucratic organizations increases, rather than decreases, their access to power to maintain or increase their monopolistic control. What Haug instead focuses on is the role of patients, which she believes is largely neglected in the theory of professions, in the deprofessionalization process. According to this, the public’s rising level of knowledge has been threatening the knowledge monopoly of medical professionals as a result of patients’ unwillingness to passively comply with doctors’ orders. Haug states that skepticism towards professionals’ expertise not only caused discomfort among the professionals while treating their educated patients, but it also brought about the revival of alternative means of healing (Haug, 1975, pp. 202–205). Haug elsewhere points at the advancements in medical technology and patients’ increasing trust in pills, tests, and other technical procedures as a factor in the decreasing authority of physicians (Haug, 1976, pp. 94–95).

Unlike Haug’s thesis, which focuses more on the consumer point of view, the proletarianization thesis is based on the changing conditions of professional work (Freidson, 1984, p. 5). The proletarianization thesis is based on the Marxian assumption that class opposition will increase to such an extent that those who are situated between the bourgeoisie and proletariat are going to be dissolved into one of the two opposing classes (Navarro, 1988, p. 69). Observing the changing conditions of professional-technical work in general in the early 1970s, Oppenheimer argues that as a result of the increasing involvement of public and private bureaucracies in professional work, control over the working conditions and the products of professional services will shift

from autonomous professionals to the necessities of the market, and the “proletarian conditions of work” will be predominant in professional employment where professionals, who by now have become wage laborers, will have to fight against market forces via “collective bargaining” (Oppenheimer, 1972, p. 213). Based on their observations on the health care system in the United States, McKinlay and Arches argue that bureaucratization is the key factor in the transformation of medicine. The researchers claim that the state facilitated bureaucratization by allowing “the flow of financial and industrial capital into the medical care field” (McKinlay & Arches, 1985, p. 169). Other factors which influenced widespread bureaucratization are increasing malpractice costs, which have forced physicians to take refuge in industrial corporations, changing medical education, which has increased physicians’ dependence on technology and other health workers, and the expansion of specialization. All these processes have led to the subordination of medicine “to the broader requirements of production under advanced capitalism” (McKinlay & Arches, 1985, p. 161) and the proletarianization of medical professionals. According to Navarro, the establishment of medical corporations was the key factor in the proletarianization of medical professionals in the United States, while in Europe, the process mainly took place as an increasing number of medical professionals became employees of the state. However, as was the case for McKinlay and Arches, the process of proletarianization in both cases is “stimulated by the state” (Navarro, 1976, p. 451).

No matter what is regarded as the cause of the transformation of health care and how the changing character of medical practice and the place of physicians in it is formulated, what appeared to be happening towards the end of the twentieth century was the ‘end of the golden age of doctoring’ (MacKinlay & Marceau, 2002). Although the professional dominance theory retained its position in medical sociology literature for some time (Hafferty, 1988), the situation would change in the 1990s with a new trend which can be defined as the “technological turn” in social theory. The acknowledgment of the impact of science and technology on medical practice by the late 1980s and early 1990s in sociological literature rendered the debate on professionalism obsolete and changed the track of the conversation from the one which was shaped by the sociology of professions to that of the sociology of science and technology. The attempts to forge a connection between medical sociology and the sociology of science and technology crystallized by the early to mid-1990s (Bartley, 1990; Elston, 1997; Star, 1995). During this period, the works of Bruno Latour and his colleagues, who developed the *actor-network theory* (ANT), played an influential role in the opening up of the research in medical sociology towards the domains which had been either neglected or seen as opaque elements. What ANT achieved was to offer an alternative to the two leading tendencies, with deep roots in the sociological canon defined by Timmermans and Berg (2003, p. 99) as “technological determinism” and “social essentialism.” According to this, the former conceptualized technology as

either an external factor that shapes societies or an instrument for political purposes, while the latter saw technology as a passive element in the creation of meaning, which essentially is a social product. Instead of these strands, which either overestimated or underestimated the role of technology, Latour and his colleagues, according to Timmermans and Berg (2003), offer a perspective in which technology's "agency is constituted by others and in turn constituted the actions of others" (p. 104). This new perspective was a strong sign of the diminishing position of physicians as key actors in the sociological analysis of the relationship between medicine and society.

### **Biomedicalization and Pharmaceuticalization**

The blurring of the territory of medicine, technoscientific advancements in health-related fields, and the emerging risks which require ad hoc adjustments for both lay people and policy-makers constantly call for new analytical tools to assess and measure the risks and the relevance of particular adaptive maneuvers, to identify the ongoing processes, and to critically evaluate them. These challenges have fostered calls for new theories and concepts to replace the framework which was previously provided by the medicalization thesis. The biomedicalization thesis is one of the products of the attempts to cover emerging topics in medical sociology. The concept of biomedicalization was initially used as an extension of the critique of the "biomedical model of disease" which, according to an early critic, is reductionist in the sense that focusing on the biomedical causes of disease ignores "psychosocial" factors and the overall "human experience of illness" (Engel, 1977, p. 131). In its many applications, the concept of biomedicalization has been used by researchers to emphasize the increasing role of biomedicine in defining health and disease without any need to distinguish it from the medicalization process. The biomedicalization of psychiatry in general (Cohen, 1993) or more specific issues like "the social construction of" aging (Estes & Binney, 1989), dementia (Lyman, 1989), or alcoholism (Midanik, 2004) have been explored with an emphasis on the shortcomings of the biomedical model and the need to "bring the social back in" (Lyman, 1989) for understanding these conditions and processes.

Biomedicalization gained new meaning with the studies of Adele Clarke. In an attempt to analyze the changing technologies and practices in reproductive medicine, Clarke (1995) made a comparison between the concern for the "control over" the reproductive body, which complies with modernity and its Fordist approach to production, and its "transformation," which has parallels with the flexible accumulation regime of postmodernity. According to this, while modernity's imprint on reproductive medicine can be observed in the mass production and distribution of reproductive technologies and services whose common characteristic is to facilitate control "via monitoring, planning, limiting, bounding, setting up barriers" on the bases of universal

principles (Clarke, 1995, p. 143), the reproductive bodies and processes of postmodernity are manipulated and redesigned “for a variety of highly local, individual and heterogeneous goals” (p. 145) thanks to the customizability of the advanced technologies of reproduction. Clarke later used these observations in a series of collaborative studies to convey the belief that medicine in the United States had gone through a series of transformations around 1985 which brought about a qualitative shift from medicalization to “biomedicalization” (Clarke et al., 2003; Clarke, 2010; Clarke & Shim, 2011).

The biomedicalization thesis is based on a series of arguments about the transformation of various aspects of medicine and health care with an emphasis on the transformation of biomedicine “from the inside out” thanks to the advancements in computer technologies which enabled “greater organizational and institutional reach” of biomedicine through various means ranging from clinical interventions and diagnostic systems to risk assessment and surveillance technologies (Clarke et al., 2003, p. 162, 165; Clarke & Shim, 2011, p. 177). Biomedicalization signifies the commodification and privatization of medicine and the intensification of medicalization via the technoscientific innovations in biomedicine which amplified medicine’s intervention in life at the molecular level (Clarke et al., 2003; Rose, 2001). Technoscientific advancements transformed not only the production and distribution of biomedical knowledge but also their consumption by introducing new agencies on the side of the patient/customer, who is expected to regard health “as a moral obligation” and take an active role in assessing risks and monitoring the body through new technologies (Clarke et al., 2003, p. 171–172; Clarke & Shim, 2011, p. 178). Biomedicalization also means a transformation of the “things medical” in visual culture and iconography, where “procedures and technologies” have taken center stage, overshadowing doctors and patients (Clarke, 2010).

According to Clarke and Shim, the biomedicalization thesis is largely an attempt “to come to terms with the implications of the science and technology studies [STS] (...) for medical sociology” (Clarke & Shim, 2011, p. 176). This objective is most clearly demonstrated with the application of the concept of “technoscience” in the discussions on biomedicalization. The concept gained prominence in the STS literature after Bruno Latour’s famous work *Science in Action* (1987) and it is employed by Clarke (et al.) on the basis of the belief that pure science and its practical applications are not separable and that they “should be regarded as co-constitutive” (Clarke et al., 2003, p. 161n). The “bio” in the concept of biomedicalization, on the other hand, serves the double purpose of alluding to Foucault’s concepts of biopolitics and biopower (Clarke & Shim, 2010, p. 181) and indicating the confluence of the “basic life sciences” and the “applied clinical medicine” (Clarke et al., 2003, p. 162n) which corresponds to the dissolution of the boundary between pure and applied forms of knowledge as it is indicated by the concept of technoscience.

The biomedicalization thesis has also been influenced by and, in return, contributed to the further development of highly influential debates on the concepts of “molecularization of life” and “biosociality” which are developed by two leading figures in the literature, Paul Rabinow and Nikolas Rose on the bases of their reconsideration of Foucault’s concepts of biopolitics and biopower. Foucault developed his argument on the transformation of power in the West on the bases of the shifts from the seventeenth century onwards in two interconnected domains, the first one of which is the disciplining and optimization of the body to be useful and docile - “the anatomo-politics of human body”- and the latter being the regulation of the biological processes of populations through the mobilization of the developing knowledge on life - the “biopolitics of population.” According to Foucault, while the prevalent form of power in the past -“sovereign power”- was the “power of death,” these two technologies have brought with them a new form of power -“biopower”- which is characterized by “the administration of the bodies and the calculated management of life” (Foucault, 1984, p. 262). Rabinow and Rose agree with Foucault’s views on the characteristics of the modern form of power but remind their reader that his analyses had been mostly about the emergence of biopower and its applications throughout the eighteenth and nineteenth centuries. According to Rabinow and Rose, there have been some key transformations in the scale and the sites of the application of the technologies of power Foucault described, and these transformations required new ways of defining sociality, life, and how they are governed (Rabinow, 1996; Rabinow & Rose, 2006; Rose, 2001). The links between these arguments and the biomedicalization thesis can be seen in Rose’s claim that the strengthened connection between the knowledge regimes of life sciences and politics and developments in biomedicine had transformed biopolitics into “molecular politics” (Rose, 2001); or again, Rabinow’s emphasis on the advancements in genetics as a key source for a new form of sociality he calls “biosociality” in an age when the split between nature and culture has become obsolete along with the category of the social (Rabinow, 1996).

There have been debates on the connection between medicalization and biomedicalization, or whether there is a qualitative difference between the two. In response to the arguments developed by Clarke (and colleagues), Busfield claims that the transitions biomedicalization thesis saw in the economic organization of health care or the process of “technoscientization of biomedicine” are presented by authors as if they are self-evident, without sufficient justification (Busfield, 2017, p. 768). Conrad (2005), on the other hand, points to the analytical problems caused by the excessive comprehensiveness of the concept of biomedicalization. What he offers, instead, is a less sweeping approach to the transformations that the biomedicalization thesis observes, which sees them as indicators of the changing of the degree or shift of the “engines of medicalization” (Conrad, 2005, p. 10). Unlike Conrad’s attempt to restore the medicalization thesis, some researchers (Abraham, 2008; Abraham 2010;

Williams et al., 2008; Williams et al., 2011) attempted to replace it with the concept of pharmaceuticalization, which aims to compensate for the alleged lack of specificity of the “catch-all notion of biomedicalization” (Williams et al., 2012, p. 2130).

Pharmaceuticalization is defined as “the translation or transformation of human conditions, capabilities and capacities into opportunities for pharmaceutical intervention” (Williams et al., 2011, p. 711). The increasing use of medical drugs has been a natural outcome of the expansion of the jurisdiction of medicine and, in that sense, might be regarded as an extension of medicalization. However, unlike the experience of the previous era, which brought the debate on medicalization to the unresolved duality between medical dominance and empowered patients, theorists of pharmaceuticalization offered a new perspective that focuses on the role of pharmaceutical companies as key figures in medicine and health care. In the sociological literature, the pharmaceutical industry had been placed under the title of medicalization and attracted far less attention when compared to topics like the authority of the physician and the role of medicine in social control (Williams et al., 2008). However, debates on the debilitating authority of the physician and the abandonment of the notion of the obedient patient in favor of the patient as a consumer or activist caused questions about the validity of the concept of medicalization. Contrary to these transformations, which appeared to nullify the foundational elements of the medicalization thesis, the pharmaceutical industry’s impact became more apparent with the growth in the consumption of pharmaceuticals (Busfield, 2010; Fox & Ward, 2008). Pharmaceutical companies had increased their profits by the 1990s with the introduction of what are defined as “lifestyle” drugs. Defined as drugs that are “used for “non-health” problems or for problems that lie at the margins of health and well-being” (Gilbert et al., 2000, p. 1341), lifestyle drugs opened new debates on various issues like the impact of the profitability of these drugs on the research and development of drugs for diseases -especially ones which more widely threaten the life and well-being of the poor- or the extent to which the costs of lifestyle drugs can/should be covered by health care systems (Gilbert et al., 2000; Lexchin, 2001). Fox and Ward (2008) observe that with the increasing emphasis on lifestyle in the production and marketing of pharmaceuticals, the context of the consumption of these products had shifted from the medical to the domestic sphere. In addition, direct-to-consumer marketing of pharmaceuticals, which is permitted in the United States and some other countries, albeit in various degrees, has contributed to the expansion of the consumption of lifestyle drugs for problems that are of a private nature, like obesity or sexual dysfunction (Fox & Ward, 2008).

The pharmaceuticalization thesis offers new perspectives to understand the relationship between the demands of patients, health care policy-makers, and the pharmaceutical industry. According to Abraham (2010), the increase in the direct

consumer purchase of lifestyle drugs can be regarded as an example of pharmaceuticalization without medicalization and, if governments reclassify prescription-only drugs as “over-the-counter drugs,” this might even mean a decrease in medicalization. In addition, the role of patient activism in medicalization gains a new outlook when we consider the collaboration between activist groups and pharmaceutical companies. Abraham (2010) points out that activist patient groups are, in certain cases, supported by companies in their struggle to have access to new drugs. He argues that the success of consumer or patient groups heavily depends on whether their interests are aligned with that of the pharmaceutical industry. These observations illustrate how pharmaceuticalization exceeds the limitations of the preceding explanations on the changing categorization of conditions in terms of health and disease. The pharmaceuticalization thesis also benefits from the literature of the sociology of pharmaceuticals and the wider debates on “big pharma” which focus on more specific aspects of the impact of technoscientific advancements in biomedicine on health care and our conception of health and disease. The high profitability of the pharmaceutical industry has come to the forefront with the increasing use of drugs. According to some researchers, pharmaceutical companies are responsible for “disease mongering” by shaping the public conception of health and disease (Moynihan et al., 2002). Global inequalities, the ineffectiveness of international regulations, and the exploitation of vulnerabilities of underdeveloped countries have also been key issues of discussion in the research on pharmaceuticals. It has been observed that although underdeveloped and developing countries have benefited from advancements in pharmaceutical technology, research, and development for drugs to defeat diseases that strike primarily the poor regions of the world have been dramatically limited. Furthermore, even though there are international regulations that aim to safeguard the access of Third World citizens to the pharmaceuticals for whose development they have been used as human subjects, death and suffering from ailments that can be cured without much financial burden for the inhabitants of developed countries have been common in the Third World (Alemayehu et al., 2018; Kremer, 2002). Pharmaceutical companies prefer to conduct their clinical trials, which, in some cases, would not be allowed in the sponsoring countries, in poor countries and the ambiguities about the application and enforcement of ethical codes and regulations on the conduction of clinical trials in the Third World cause concern for violation of research ethics and distributive justice (Angell, 1997; Benatar, 2001; Glantz et al., 1998).

### **Conclusion**

The gradual disappearance of the physician in medical sociology has not taken place with the paradigmatic shift from medicalization to theories like biomedicalization or pharmaceuticalization. In fact, although the concept of medicalization had strong ties with the professional dominance thesis (Ballard & Esilton, 2005; Furedi, 2006), as it

was expressed by McKinlay and Stoeckle, it was already outdated when it was introduced by Freidson in 1970, presenting “a snapshot of the position of doctors back in the 1960s” (McKinlay & Stoeckle, 1988, p. 199). As discussed above, sociologists have long been questioning the professional dominance thesis in terms of the “factual” decrease of the position of physicians as significant figures in health care. However, the diminishing interest of sociologists of medicine in physicians is not necessarily an outcome of their preference to abandon the idea of medicalization. Apart from the above-mentioned versions of medicalization which focus on the demands of the patients, the literature on self-care and non-allopathic medicine since the late 1970s illustrates how medicalization proceeds without physicians or other conventional medical professionals. Researchers pointed out the benefits of self-care in terms of preventing diseases and limiting the potential problems professional dominance might cause, though with reservations about its risk of transferring governments’ responsibilities to the individual or concealing the structural problems of the health care system (Kronenfeld, 1979; Levin, 1977). The expansion of the “medical way of thinking” (Crawford, 1980, p. 370) and the “definition of health” (Barker, 2014, p. 174) without the direct involvement of medical professionals or sometimes even against their interests, have led sociologists of medicine to focus more on patients’ ways of dealing with disease outside the doctor’s office.

Some theorists of biomedicalization (Clarke, 1995; Clarke et al., 2003) and pharmaceuticalization (Bell & Figert, 2012) approach the relationship between medicine and society from a macro perspective and claim that medicalization is the product of the period when it first emerged and therefore, it is inadequate for understanding the changing conditions of health-related issues in the postmodern era. The key concern of these theorists is to grasp the implications of the scientific and technological advancements for medicine, which leads them towards incorporating the tools of the sociology of science and technology. The key debate among the researchers who prefer to abandon the medicalization thesis appears to be about the way sociological research on science and technology will be incorporated into medical sociology; this has been an issue of discussion among scholars. As a key figure of the pharmaceuticalization thesis, Abraham expressed on many occasions his displeasure over much of the post-1980 sociology of science and technology literature, which was largely “social constructivist.” He offered, instead, “a realist sociology of scientific knowledge” to understand micro-scale processes of the production of scientific knowledge along with “a synthesis of archival evidence from historical sociology and established theoretical models from political sociology” to explain pharmaceuticalization with reference to the “objective interests” of pharmaceutical companies and patients (Abraham, 2008, p. 870). Abraham’s (2011) critique of Williams’s (et al., 2011, p. 711) definition of pharmaceutical interventions illustrates two distinct strands within pharmaceuticalization theory. While Abraham criticizes Williams and colleagues’

definition for being too broad, to the extent that it might even include illegal drugs like cocaine, the researchers reply to Abraham's critique by stating that although illegal drugs are not part of their investigation, for they are not produced by pharmaceutical companies, they prefer a broad definition of pharmaceuticalization to cover the uses of pharmaceuticals both within and beyond the "realms of medical authority" without the limitation of those which are used for 'treatment' (William et al., 2011b, p. 729).

In brief, no matter which theoretical tools they prefer or epistemological presuppositions they rely on, sociologists who study medicine's relationship with our life appear to be losing their interest in what physicians do in hospitals in favor of the actions of the agents of the production and marketing of medical technologies, the involvement of non-humans (medical devices, germs, etc.) in determining the conditions of healthy living, and the demands and coping strategies of patients/consumers. There has been a growing interest in the technoscientification of medicine with which "scientific rationalities and technological devices" co-construct each other (Wehling, 2011, p. 68). Accordingly, technoscientification did not only transform medical practice but also changed the conditions of the formation of illness identities which started to incorporate technoscientific knowledge to face biomedical uncertainties (Sulik, 2009). In addition, this process transforms not only the way individuals experience illness but also how they define healthy living. This transformation is defined by Martin as the emergence of the "pharmaceutical person" who relies on the "cocktails" made up of various pills "to keep working, parenting, studying, or just living" (Martin, 2006, p. 286).

Under these circumstances, unlike in the late 1960s and 1970s when professional dominance was the central theme of medical sociology, there appear to be two main issues that shape the ongoing debates in the literature. The first one is an extension of the debate between realism and constructionism, and this is exemplified by the debate between Abraham and other theorists of pharmaceuticalization. In Abraham's case, we see an attempt to retain the capacity of sociology to uncover causal links by stressing the objective interests of pharmaceutical companies and patients – a function that was fulfilled by the professional dominance thesis in the medicalization literature of the 1970s. Researchers like Clarke (et al., 2003), Busfield (2006), and Williams (et al., 2008), on the other hand, do not refrain from leaving an open door for a multiplicity of meanings and the fluidity of relationships that influence medical science and practice along with our expectations about health-related problems and life in general. The second issue which has become central to our understanding of the relationship between medicine and society is the impact of technoscientification on subjectivity. Concerns over the new subjectivities which emerge with technoscientific advancements can be observed in the opposing views of Lippman and Rose on the research on genetics. Investigating the implications of developments like the *Human Genome Project* at the

beginning of the 1990s, Lippman observed a tendency towards approaching all diseases as disorders caused by genetics and argued that this will lead to the rise of medical surveillance practices like genetic screening, which not only has significant ethical implications but also carries the risk of the abandonment of policies to reduce social and economic causes of diseases (Lippman, 1992). Rose, on the other hand, repudiates the negative implications of this process, which Lippman calls “geneticization,” on the grounds that they are based on the assumption that individuals are passive receivers of what geneticization will bring to them. Instead, he argues that advancements in biomedicine brought about what he calls “somatic individuality” as a result of which we “experience, articulate, judge, and act upon ourselves in part in the language of biomedicine” (Rose, 2007, p. 26). Although it is difficult to determine whether the advancements in biomedicine will bring about the suppression of individuality or new forms of subjectivity, there is little dispute over the increasing role of new actors and new sites in shaping the interaction between medicine and society.

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