

# Tensions between the (il)legal and the (il)legitimate in professional health practices regarding women who seek abortion

Tensiones entre lo (i)legal y lo (i)legítimo en las prácticas de profesionales de la salud frente a mujeres en situación de aborto

Alejandra López Gómez<sup>1</sup>

¹PhD in Social Sciences. Coordinator of the Gender, Reproductive Health and Sexualities Program, Health Psychology Institute, Faculty of Psychology, Universidad de la República, Montevideo, Uruguay. alopez@psico.edu.uy ABSTRACT The implementation of a pre- and post-abortion health care strategy, adopted in 2004 in Uruguay within a restrictive legal context prior to the decriminalization of abortion in 2012, opened a window of opportunity to link women facing unwanted pregnancies and abortion to health services in order to prevent unsafe abortion practices. This article looks into the tensions generated by the change of focus from maternal-child health to health and sexual and reproductive rights, and how those tensions operate. Using semi-structured interviews and focus groups, the practices and perception and assessment frameworks of professionals in their care of women facing unwanted pregnancy and abortion in the National Integrated Health System in Montevideo are analyzed. The results offer insights into some of the barriers and difficulties that can currently be observed in the implementation of the new law.

**KEY WORDS** Public Health; Reproductive Rights; Health Services; Induced Abortion; Illegal Abortion; Uruguay.

**RESUMEN** La implementación de una estrategia sanitaria de atención pre y post aborto adoptada a partir del año 2004 en Uruguay, en un escenario legal restrictivo previo a su despenalización en 2012, abrió una ventana de oportunidad para vincular a las mujeres en situación de embarazo no deseado y aborto con los servicios de salud con el objetivo de disminuir su práctica insegura. En este contexto, este artículo busca indagar cuáles son y cómo operan las tensiones generadas por el cambio de un enfoque materno-infantil hacia otro centrado en la salud y los derechos sexuales y reproductivos. A través de entrevistas semiestructuradas y grupos focales, se analizan las prácticas de los/as profesionales y sus esquemas de percepción y apreciaciones, en la atención a mujeres en situación de embarazo no deseado y aborto en los servicios del Sistema Nacional Integrado de Salud (SNIS) en Montevideo. Los resultados obtenidos brindan insumos para analizar algunas de las barreras y dificultades que se pueden observar actualmente en la implementación de la nueva ley.

**PALABRAS CLAVES** Salud Pública; Derechos Reproductivos; Servicios de Salud; Aborto Inducido; Aborto Ilegal; Uruguay.

### **INTRODUCTION**

Unsafe illegal abortion is a critical issue in the vast majority of Latin American and Caribbean countries, and carries with it significant consequences for the lives and well-being of the region's women. The progress toward the political and social recognition of sexual and reproductive rights as human rights – which has been made in both the international and regional arena as well as in different national contexts – is not now nor has it ever been free of disputes and controversies. The Uruguayan experience offers substantial evidence in this regard.

At the beginning of the new millennium, Uruguayan society became actively involved in the debate over women's rights to voluntarily terminate a pregnancy, within a larger framework of discussions on health and sexual and reproductive rights. Backed by the feminist movement, the right to legal and safe abortion began to be transformed into a robust popular platform in which diverse actors articulated a variety of arguments and actions in hopes of provoking changes in the legal framework that criminalized abortion, as well as the healthcare sector's institutional responses to this problem.<sup>(3)(4)(5)</sup>

The lengthy public debate impacted policy and healthcare services, as well as the practices of healthcare professionals. The implementation of a healthcare strategy focusing on pre- and post-abortion care, (6) adopted by the Ministry of Public Health in 2004 via Ordinance No. 369,(7) created a window of opportunity for linking women facing undesired pregnancies and women seeking abortions to healthcare services, while still within a restrictive legal framework that punished abortion as a criminal offense. One of the missions of this directive was to prevent high-risk abortions and reduce possible harm resulting from clandestine practices. It constituted the healthcare sector's first institutional response to the problem of unsafe abortions contemplating professional intervention before and after an abortion, and could be considered a policy based on the recognition of the right

to health care of women. This norm framed unsafe abortions as a public health issue, and broke the healthcare system's historical silence on the topic. From that moment on, it provided a regulatory framework for dealing with this issue – however limited this approach might have been.

It could be argued that this was a low-intensity policy in that: a) few clinics implemented it and those that did organized it as a non-integrated service with respect to other aspects of care related to sexual and reproductive health; b) its implementation was not monitored or evaluated by healthcare authorities; c) strategies for communicating its different aspects to the public were not developed; and d) it did not include criteria for providing care for abortions performed at healthcare institutions that were contemplated by the legislation at that time.

Health and sexual and reproductive rights are areas of moral, ideological, political, religious, symbolic, and economic disputes, and in recent years have been gaining increased legitimacy and recognition across society. Abortion, taken as an aspect of sexual and reproductive health, allows us to analyze the complexities of issues related to sexuality, reproduction (or lack thereof), love, and women's control over their own bodies - as they are the principal actors involved. All of these ideas are definitively linked to a number of conflicts that are expressed in healthcare service provision and in the contract between healthcare professionals and the women who seek their services - conflicts between the individual and the collective, the public and the private, universality and particularity, secularism and religion, subordination and domination.

Within the context of a patriarchal culture in which professional practices are constructed and reproduced, the hegemonic medical model<sup>(8)(9)(10)</sup> has acted as a fundamental basis for the origin and development of the maternal-child approach. This model efficiently operates not only in the organization of the healthcare sector and its conventional services, but also its professional practices, the forms of subjectivity it promotes, and

the predominant methods of technical and professional training. The maternal-child approach, sustained by the woman = mother equation, has historically informed the definition of policies and programs as well as the organization of healthcare services aimed at women in Uruguay. The institutionalization of these policies - accompanied by a hegemonic view of women's role as caretakers charged with the supervision of family health, and in the absence of male participation in reproductive processes – made it difficult to dismantle and modify the constructs of gender that such policies were based on. (11) The position put forth by the contrasting approach (that of health and sexual and reproductive rights) has called into question, among other issues, the predominant professional practices shaped by the biomedical perspective.

Three interrelated levels can be identified in the field of health care: 1) that of the definition of public policies, 2) that of the organization and management of healthcare services, and 3) that of professional practices. These levels should ideally be articulated such that they create a virtuous cycle capable of guaranteeing rights through the provision of integral care. This model could be critiqued for its intra-systemic character, if we consider that healthcare services are also affected by the demands of the citizenry as well as the enforceability of rights.

Professional practices can be considered an analyzer through which we can view moral and ideological disputes that occur at the social and institutional levels regarding the right of women to make reproductive decisions (including the decision to not reproduce). An analyzer may be an element or situation that forms part of the social reality (such as a practice, discourse, or event) that expresses the contradictions of a system and reveals the structure of institutions, their logics, norms, symbols, and conceptions of power. The role of actors is crucial in that their behavior in a given situation is conditioned by the position that they occupy within that system, while the system also has effects on them. (13) From this point of view, the practices of professionals when

dealing with women and abortions shed light on the complexities and contradictions inherent in the incorporation of a gender- and rights-based perspective in the field of health care, as this field is largely constructed from the hegemonic biomedical and patriarchal framework.

The manners in which actors perceive, interpret, appreciate, and narrate the reality of which they form part - in this case, the modes of perception and evaluation of professional practices in the field of health care – are a product of a certain habitus, following Bourdieu, which can be defined as social representations and practices subjectively incorporated via cognitive and affective processes from which the meaning of (professional) actions are produced and reproduced, and the field (of health care) is recreated and/or transformed. (14) This reveals the need for analyzing the manners in which professionals perceive their own practices. which are in turn circumscribed by institutions and are socially/historically situated.

The relationship between healthcare services and women who seek abortions - a relationship that is mediated by encounters with healthcare professionals - is a privileged locus from which we can evaluate the possibilities, difficulties, and forms of resistance contained within the agenda of gender and rights issues within the healthcare field. Given that the public health strategy of preventing unsafe abortions has been advanced in other countries in the region with restrictive legal contexts, this study provides elements to understand some of the critical aspects of the role of professionals in those scenarios, and eventually to develop actions capable of anticipating obstacles and resistances.

## Abortion, health, and sexual and reproductive rights as an object of policy in Uruguay

At present, sexual and reproductive health constitutes an interdisciplinary field with a wide range of objects of study, approaches, research designs, and methodologies/techniques of professional intervention and political action. It is a field in which political, scientific, social, ethical, and ideological aspects of sexuality, reproduction, and health become intertwined.<sup>(15)</sup>

The creation of a public policy presumes the acknowledgement of a social problem. Likewise, the process of outlining and constructing the problem is part of the problem itself.(16) Between 1996 and 2012, Uruguay made significant strides in establishing legislation in its legal framework recognizing sexual and reproductive rights as human rights that must be protected by the State. [a] Nonetheless, abortion remained illegal<sup>[b]</sup> under all circumstances until 2012, when the Voluntary Interruption of Pregnancy Act (Act No. 18987) was passed, (17) not implemented by the National Integrated Healthcare System until January of 2013. Changes since the mid-1990s in the orientation of public policy on sexual and reproductive health can be explained by the impact of United Nation Conferences[c] and by the political work done by feminist organizations. (18) Strategies for the implementation of sexual and reproductive healthcare services throughout the country were defined. In this process multiple obstacles have been identified related to functional, organizational, cultural, and economic barriers that have made it difficult to implement changes in the model of care provision. (19)(20)(21)(22) These obstacles reveal the complexities of processes of institutional and cultural transformation necessary to fully recognize women as rights-bearing subjects.

Under these circumstances, the issue of unsafe abortions became increasingly present in the political agenda as a public health problem. The relationship between the definition of the policy, its implementation in healthcare services, and the professional practices promoted is an issue of great complexity with multiple facets and intersections. Framing unsafe abortion as a public health issue was a theme in parliamentary debates between the years 2000 and 2012, and constituted the most influential argument used to support the various initiatives, relying primarily on the authority of the medical perspective. If we analyze the range of healthcare regulations and administrative decisions passed at the beginning of the new millennium aimed at regulating the relationship between doctors/ healthcare teams and service users, with respect to abortion a progressive bureaucratization of the procedures and the conditions imposed on women can be observed. (23) Although these measures constituted an attempt to force the healthcare system to adjust to the reality of abortion vis-à-vis the prevention of unsafe practices, they were also motivated by a desire to restore regulating authority to the medical field, employing a discourse that combined more traditional elements of medical practice with innovative language explicitly recognizing women as rights-bearing subjects. Nonetheless, this notion of rights was limited to professional intervention, charged with "supervising" women's decisions through counseling mechanisms in order to certify their acceptability from a technical point of view.

The role that the medical field has played (and continues to play) in the construction of the problem of abortion is no novelty. It forms part of the more general process of medicalization of Western societies that began in the 18th century, wherein the field of professional medicine constitutes a biopolitical strategy of the highest order. Foucault masterfully demonstrated how social control was exercised over bodies, generated as biopolitical realities through medicine as a social practice, and how the process of medicalization implied the normalization of medicine and physicians even before that of patients. (24) The history of bodies cannot be written without a consideration of their location in the political field. The author notes that we should abandon the traditional (and naïve) notion which maintains that knowledge can be developed independently from the requirements, demands, and interests of power. (25) The socio-historical construction of modern medicine and the medical profession has been widely studied by the sociology of health and the sociology of professions. Continuing Foucault's legacy regarding the social character of medical practice,

the work of Canguilhem, (26) Boltanski, (27) and Illich(28) should not be overlooked. These authors questioned the traditional perspective that medical practices were produced via relationships and interactions independent from social life. Studies by Freidson, (29)(30) Zola, (31)(32) and Turner(33) have been crucial in analyzing the relationship between medicine and society, in the way in which the medical profession and professional practices in health care are configured. Similarly, feminist thought has made invaluable contributions to the critical analysis of medicine's role in expropriating control over women's bodies, particularly with respect to their reproductive autonomy and access to sexual pleasure. (34)(35)(36)

Barrán<sup>(37)(38)</sup> researched the role of the medical field in the transformation of early 20th century Uruguayan society through an analysis of the ways in which certain social issues were constructed as medical problems. This was accomplished by attributing scientific authority to hygienist strategies regarding the body and human interactions. Medicine was one of the principal ideological bases on which the new civilized sensibility was constructed. Political powers and the medical establishment strategically cooperated to construct a culture in which the medical field was granted a monopoly on the ability to cure, medicate, and certify normalcy. This involved complex processes that produced new subjectivities subordinated to medical knowledge-power, with strategies of classification of patients as good or bad, as well as of infantilization and supervision. (37)(38)

Despite the increasing complexity of contemporary medicine and the crisis that can be observed in the contract between the medical field and society at large, (39)(40) the figure of the physician continues to be granted substantial power over bodies and over life itself. This can be observed, for example, in the multiple manners in which reproductive rights are violated in the healthcare sector. (41) (42) As Tamayo has argued, recognizing the rights of women implies "establishing limits on proprietary action," or more precisely, condemning and eradicating any attempted domination over women which seeks to deprive them of their rights. (43)

### Reproduction and the body: disputes in the healthcare field

The distinction between sex and gender has been extensively theorized in feminist thought, and has been the object of intense debates and multiple revisions. The generalized use of the concept of gender outside of feminist circles, its domestication via institutionalization in the field of public policies, the risk centered around the neutralization of its transformative political potential, and its very naturalization may produce a weakening effect in terms of the political and analytical efficacy of this concept. The abundant confusion regarding gender and sex, the frequent conflation of gender and women, its absorption into the Marxist concept of the sexual division of labor, and the flexible uses of the concept of patriarchy are all examples of this tendency. As Scott has suggested, "gender has turned into a courteous form of discussing anything having to do with sex."(44 p.96)

The nature-culture construct is by no means neutral for the analysis of gender, and feminist theorists have sought to call into question biological determinism and its relation with the supposed inferiority of women and of all that is feminine. Ortner has offered an explanation of masculine domination, analyzing the hierarchical dualism of the relationship between nature and culture, in order to shed light on the ontological foundations of the perspective that presupposes the inferiority of women. The central tenet of her argument is that we should cast doubt on the biological basis of differentiating women from men and in identifying this difference as the cause for women's inferiority and devalued position. She goes on to argue that women have been traditionally identified with nature, while men were more frequently associated with culture. (45)(46)

At the center of this construct are the bodies of women, with their "privileged" reproductive apparatus, which brings with it a "natural" maternal instinct that determines their conduct in taking charge of the

product of any procreation. This naturalistic conception obscures any perception of the historic and cultural variability of these processes, thereby submerging them in the atemporality of the universal. Through complex social and cultural practices, conceiving of maternity as a product of nature effectively becomes established as an essential component of femininity. (47)

The act of confining women to the domestic sphere can be traced to this understanding of reproductive and caretaking functions, whereby the mother-child relationship is presented as a natural link explaining the predominance of the mother's role in said functions. This social order was constructed alongside a corresponding reproductive order, within a universe of meaning attributed to reproduction, and was based on the imposition of norms, systems of imperatives and prohibitions, and the distribution of roles. In order to fulfill this mediating function, through the mothering process it is necessary to produce specific subjectivities capable of sustaining it, with corresponding conceptions of self and of others, specific modes of thinking, and a psychological positioning able to appropriate this woman's "place" as if it were always there, stripping it of any notion of socio-historical construction.

The concept of gender developed circumscribed by the nature-culture binary and constituted an attempt to deconstruct biological determinism. Young posits that gender theory first arose as a "grand narrative," which from its beginnings sought to provide an explanation of the universally unequal condition of women. Despite the fact that it has been and continues to be critiqued from diverse points of view, gender theory has been effective in producing novel arguments that have situated the problem of the oppression of women at the center of many political and theoretical debates. (48) As gender is a flexible and shifting category, critiques and reformulations of this concept have generally come from within the ranks of feminism itself. These debates have developed on a number of fronts: a questioning of the gender-sex binary; over the supposed existence of two genders; the idea of the construction of womanhood and of the feminine as an ahistorical and culturally homogenous whole; a rejection of the conception of woman as victim; and regarding normative obligatory heterosexuality. The path to conceptual harmony has not been linear nor has it been free of tensions. (49) The transformations of postmodernity have produced social consensuses and new practices that directly confront the nature-culture binary as well as the public-private dichotomy, while generating new meanings that cut across these domains. Nonetheless, these innovative discursive practices coexist - not without conflicts and frictions - with previous forms more characteristic of modernity, demanding to take over the organization and production of meaning. In any case, such contemporary forms of conceptualizing the relationship between nature and culture do challenge the reductive and disjunctive tendencies more characteristic of Cartesian thinking. In other words, it is a struggle against the ontological discontinuity between nature and culture on which the essentialism of social inequalities, expressed as sexism, homophobia, racism, is based. Or a struggle against the division of mind and body, or against a uniform conception of sexual difference. In terms of the paradigm of complexity, this implies putting into play operations of conjunction, distinction, and implication. (50)

The work of feminist theorists has shed light on many relevant issues in the healthcare field, criticizing the androcentrism of the medical sciences and demonstrating the medicalization of women and their conditions. These processes cannot be considered biases or defects of Western medicine: "far from being imperfections of the medical system, they structure the system itself; what must be done is to re-contextualize the entirety of this form of thinking."(36 p.35) In the medical field, three fundamental mechanisms of the patriarchy have been put into practice and made to pass for science, with specific reference to women's bodies: the naturalization of sexual differences as a biologically immutable fact, along with the inferiority of women; the separation of the body and subjective experience; and the objectivization of the subject. (35) As noted by Giberti, it has become necessary to encourage a disarticulation of various predominant assumptions in healthcare theory and practice: a) disassociating reproduction from maternity; b) disassociating reproduction from love for one's child; and c) disassociating maternity from maternal love. (51) These three conceptual pairs have informed the configurations of meaning associated with professional practices in health care, and the decision to have an abortion or the lack of desire to have a child expressed by some women become inevitably caught up in these discussions.

Following Bourdieu, masculine domination structures the healthcare field, and through complex processes of domination becomes imbedded in our unconscious, in the symbolic structures and institutions of our society, and is maintained and reproduced through mechanisms of coercion and consent. (52) From this perspective, it is possible to analyze how violent practices in health institutions are created, perpetuated, and reproduced as a structural part of the authoritarian healthcare field. These practices are often considered by actors in the field to be "natural" problems related to quality of care. (53) In this sense, it is crucial to understand how both the healthcare field as well as professional and gender habitus are organized, structured, and operate, so as to discern how the field confronts, accepts, resists, or recreates discourses on the reproductive rights of women.

This article presents the partial results of a study on healthcare professionals and abortion in Uruguay<sup>[d]</sup> leading up to the passing of the Voluntary Interruption of Pregnancy Act (Act No. 18987) in November of 2012. Prior to this legislation, abortion had been defined as a criminal offence since 1938 by Act 9763.

#### METHODOLOGICAL FRAMEWORK

The principal research question that this empirical study sought to address was the following: with the transition from a maternal-child health framework towards one more centered on health and sexual and reproductive rights observed in Uruguayan health policy between 2000 and 2012, what are the tensions that have been generated and how do they operate? In order to respond to this question, we concentrated on the micro level, via an analysis of the practices of healthcare professionals - specifically with reference to their perceptions and mental frameworks - who provide care for women facing unwanted pregnancies and abortion in the National Integrated Healthcare System (SNIS) [Sistema Nacional Integrado de Salud] in Montevideo. One of the specific objectives of this study was to analyze the relationship between the definition of public policy regarding unsafe abortion and the manners in which healthcare professionals assimilated policy objectives into the care they provide.

Given the principal objectives of this study, a descriptive, exploratory, analytical research design was adopted, based on qualitative strategies. For data collection, the techniques employed were semi-structured, in-depth interviews and focus groups. These techniques were chosen in order to gain access to the mental frameworks and perceptions of healthcare professionals regarding their professional practices, as well as the differences, controversies, and similarities among the ways in which they built relationships with the women who sought abortions and the meaning they attributed to their own technical-professional interventions. A purposive sample was designed that included both female and male healthcare professionals from different disciplines related to sexual and reproductive health care, all of whom worked in SNIS services in Montevideo. Twenty-eight interviews were conducted as well as five focus groups per type of profession (nurses, physicians/gynecologists, obstetricians, midwives, psychologists), which included the participation of 39 professionals. A total of 67 professionals participated in this study, 41 women and 26 men. Of the participants, 32 were doctors, 12 midwives, 12 psychologists, and 11 nurses, with a mean age of 42. Sixty percent had more than 10 years of experience. Half of the professionals worked in both the public and private sectors. Sixty percent had children at the time of the interview. The majority identified themselves as atheist/agnostic, and those that did identify with some religion were primarily non-practicing Catholics. In terms of political ideology the majority positioned themselves as center or center-left.

Respondents agreed to voluntarily participate in the study, having received information on the research process, as indicated by Executive Order CM/515/08 regarding Research with Human Subjects. Informed consent documents were signed and participants were guaranteed confidentiality and protection of their identity during all stages of the research. This project was approved by the Committee on Research Ethics of the School of Psychology at the Universidad de la República.

The treatment of empirical data followed the technical procedures of content analysis, from a hermeneutic-dialectic interpretive framework, in order to aid understanding of the intersubjective processes involved, their context, and a critical vision of the interests at stake. (54) Through numerous readings of the data and their codification, operational-empirical categories were constructed that were put into conversation with the previously defined analytical categories. (55)(56)

### **RESULTS AND ANALYSIS**

This section is organized into two subsections: the first presents results on the relationship between the (il)legal and the (il) legitimate in professional action regarding abortion. Expanding on this subsection, the second analyzes gender-based assumptions underlying the mental frameworks and perceptions of the healthcare professionals regarding the legitimacy of women's decisions to have an abortion. The analysis of empirical data based on the theoretical considerations detailed above offers some indication of how to comprehend the complex processes involved in the transformation of professional and institutional practices in the field of public health, from a gender- and rights-based perspective.

Following Berger and Luckmann, (57) the function of legitimation in the production of new meanings allows for the incorporation of an object as subjectively plausible. In this sense, the authors hold that

...legitimation produces new meanings that serve to integrate the meanings already attached to disparate institutional processes. The function of legitimation is to make objectively available and subjectively plausible the "first-order" objectivations that have been institutionalized [...] Here the question of plausibility refers to the subjective recognition of an overall sense "behind" the situationally predominant but only partial institutionalized motives of one's own as well as of one's fellow men. (57 p.118-119)

The ontological, theoretical, and ideological assumptions that orient professionals' perceptions and evaluations regarding the (il)legitimation of technical-professional interventions regarding abortion, as well as a woman's decision to voluntarily terminate a pregnancy, are key aspects in the analysis of how these professionals view women who seek abortions, in terms of the gender constructs from which they interpret the (non-) reproductive decisions of women and their own interventions.

### Professional action at the 'edge' of the (il)legal and the (il)legitimate

At the dawn of the new millennium, the wide-reaching and intensive debate over the right to abortion and the programmatic

measures to prevent the practice of unsafe abortions adopted by health officials had the effect of transforming the topic of the voluntary interruption of pregnancy into an issue in the arena of healthcare services, putting an end to the shroud of secrecy that previously veiled such practices. Even though abortion was still considered an illegal act, it began to be perceived by society as a legitimate (or at the very least acceptable) decision - its illegitimacy had been called into question. It is interesting to observe how this tension between the (il) legal and the (il)legitimate was perceived and processed – subjectively – by healthcare professionals. Public health policy regarding pre- and post-abortion care explicitly operated from this double bind, legitimating technical intervention in a legal framework that considered abortion to be an illegal practice.

Lamas<sup>(58)</sup> argues that in the legalization of abortion in Mexico's Federal District - while it did allow for new conceptualizations regarding abortion and limited resistance on the part of healthcare personnel – did not per se lead to the acceptance of abortion practices; such acceptance is more determined by the manner in which the conflicts between the medical habitus and the legal status are resolved. In the case of Uruguay prior to the legalization of the voluntary interruption of pregnancy, the tensions between legitimacy and illegality of abortion put professionals in the precarious situation of acting on the edges of the fine line separating the legal and the illegal. Through mechanisms of professional counseling, they were charged with providing information and advising women in the decision making process, with the purpose of "respecting" their decision after offering all of the possible alternatives when faced with an abortion. If the woman decided to terminate her pregnancy the professionals could not perform the abortion, but rather inform her of the safest methods available. Nor could they prescribe medication; misoprostol was only authorized for inpatient obstetric use. Once the law was passed, a new panorama more favorable to the management of these situations was created, even though it implied restrictions in the professionals'

range of action, which in turn generated disconformity among them.

I think it is hypocritical, because we tell you everything you have to do but we don't facilitate anything for you; you're on your own. So I think we create a huge gap there. I can't say to someone, "you have to do this, this, and that" and when they ask, "how can I do that?" "Oh, well I can't help you there," and wash my hands of the situation. It's either I don't say anything about how to go about doing things or I do everything, I can't leave everything half-done and send them on their way [...] There is not a lot of room for interpretation. The law is very clear, whether or not you agree with it, abortion is illegal. It's still a crime... and healthcare teams don't really have much leeway in terms of what they can do. (Gynecologist, male, 58 years old)

Even though healthcare regulations were valued as an important tool for mediating the relationship between healthcare services and their users, professionals' perceptions were that the authorities and mid-level officials showed low levels of commitment to applying them. The majority of healthcare services were not prepared to provide this service, clear directives were not present, no opportunities were organized for training healthcare personnel on these services, and methods of intervention were not agreed upon. This led to a situation in which a wide range of strategies was defined by individual professionals based on their views regarding the issue – or in some cases they chose not to apply the regulations at all. The relationship between policy definition, its implementation in healthcare services, and its impact in terms of modifying maternal-child care was perceived as largely deficient.

If institutions had clearer criteria... I think that there would be more awareness. If there were clearer directives – that would go hand in hand with training and staff awareness campaigns,

not just a "top-down" mandate... Because that's been done many times. I think that's something that's missing: a plan and clear direction, from the head of the institution; I think that would make things easier, especially because it would have to be communicated to the public who would in turn benefit from those services; so you come in already knowing your rights. (Nurse, female, 30 years old)

At the Ministry I think they put it like this: "that's fine, it's a regulation, just don't make a lot of noise about it." And I think it's exactly this type of regulation that should make an impact, but it needs institutional support, because part of its success depends on people becoming empowered to demand that their rights are respected, because if you don't disseminate the necessary information... (Gynecologist, female, 45 years old)

Given that the enforcement of this regulation depended almost exclusively on the will of the professionals, it allowed for an ample repertory of approaches to technical counseling. We were able to identify three such approaches in the accounts of healthcare professionals: a) formal-instrumental: following the regulation to the letter, with little professional involvement; b) medical-regulatory: a restrictive interpretation of the regulation's language, that hinged on technical-moral considerations(39) (40) and was based on a conception of gender that considered reproduction and maternity to be the exclusive realm of women; and c) integral-involved: a liberal interpretation of the regulation, prioritizing the respect for women's decisions, with high levels of professional involvement. These approaches were not found in "pure form" but coexisted in the professionals' accounts in a contradictory manner, shedding light on controversies and disputes regarding the construction of abortion (and of women who abort) as an object of professional intervention.

There are professionals that condemningly advise women on their options. There are others that don't do that, but they do load their recommendations and analyses of the situation with their own subjectivity. It all still depends a lot on a professional's training and values, and that shouldn't be the case. (Gynecologist, male, 44 years old)

Despite these limits, in a context in which legality and legitimacy dispute for symbolic territory, professionals perceive certain transformations in the relational modes between services, professionals, and women. This process of transformation implicates them at a personal level ("we've all gone through changes"), in a process that has not affected women, but also professionals – particularly the older ones – and the interactions between them.

We've all gone through changes, and, for example if a 60-year-old woman comes in and I ask her if she has had an abortion, she hesitates in answering. When it was a miscarriage she will answer you right away... Even so, if I ask a 30-year-old woman and she answers me quickly and then I ask her if they were purposeful, she also answers quickly [...] The social reality is completely different and we all go through those changes. Therefore, I think today a twenty-something woman with an unwanted pregnancy would come in to discuss it with a healthcare team, whether or not she ends up getting an abortion, but she would come in to discuss it. This happens much more than it used to; before if it were an unwanted pregnancy, they wouldn't come near healthcare teams because they were just trying to gain access to someone who would perform an abortion; nowadays they seek information. (Gynecologist, male, 58 years old)

The newest generation of physicians as well as those in training experienced these circumstances as "natural," to the point that

they could be considered "children of the healthcare regulation"; when they became involved in healthcare services, unsafe abortions were not an issue foreign to their clinical practices. Based on these experiences, they were more closely aligned with a "pragmatic idealism," practices and the social context, the institutional structure and culture of which they form a part.

It's an everyday thing, so it doesn't really strike you as strange unless the pregnancy is very far along and it was intentional, that might raise some sort of flags. In that case you might think something about it, but if not you wouldn't; it's normal, it's an everyday thing that happens several times a day, so it doesn't really cause a stir (Gynecology Resident 1, male, 30 years old, focus group)

Professional practices are determined at a number of different levels that refer to their social, political, ideological, economic, and subjective aspects. The forms of subjectivity, value systems, and conceptions regarding gender, abortion, maternity, and rights that are brought to bear in professional practices carry significant weight with respect to the process of public policy implementation. The relevance of this level is based on the strong connections that exist between this subjective dimension and perceptions and mental frameworks, in that the latter are a reflection of the consensuses, tensions, and controversies within a community of individuals that – even though its agents occupy different positions in the institutional field – share common logics, codes, systems of mutual recognition, legitimation, and censure.

The tension between the illegality of abortion and the legitimacy of professional intervention (before an abortion occurs) is one aspect that can be used to explain the low levels of implementation of this policy, in line with the experiences of professionals. This raises the question of whether or not casting doubt on the legitimacy of the intervention – even when it is understood as

a "borderline" action somewhere between the legal and the illegal – might be linked to a rationale that justifies some forms of resistance on the part of the professionals themselves. These forms of resistance are put into motion by professionals in their role as such, particularly when the issue at hand is the recognition of women as subjects capable of making ethical decisions about their reproductive lives.

### The "nature-culture" construct in professional discourses on abortion

The ontological assumption regarding the abortion statute expressed in professionals' discourses allowed us to identify the relationship between pregnancy - considered a natural-reproductive act - and abortion, taken as a non-reproductive/anti-natural decision. Through complex social and symbolic processes, pregnancy and maternity are understood as a product of nature, ultimately determining the universal and necessary fate of all women. Through a variety of different signifiers, the nature-culture relationship intervenes to construct professionals' discourses regarding abortion. These signifiers reproduce gender mandates that justify the subordination[e] of women via professional action - which can be observed, for instance, in medical-regulatory pre-abortion counseling. Nonetheless, some fissures in the traditional positions were noted, along with the production of new systems of meaning, which affected (albeit at times precariously) the professionals' modes of intervention.

A prevalent theme in the professionals' accounts was detected, linked to the ontological perspective regarding the "female" as naturally associated with maternity, as though it were a question of destiny. In this naturalist conception regarding women, to which collective beliefs and scientific discourses (including the medical discourse) also adhere, priority is given to the notion of instinct and the woman-mother-nature equation, with significant implications for the production of bodies and forms of subjectivity. One such

vision maintains that maternity is the categorically central element of the "feminine identity."

Well, I'm a fan of babies... Professionals should support women so that they decide to carry the pregnancy to full term, that's what's natural; but if she decides to terminate it, that's when we give should give her all the information relating to the medication... it can't just be a question of telling her, "oh, you want to terminate the pregnancy, ok, you have to take this medication and that's it"... no, no (Gynecologist, male, 63 years old)

Like I told you, I'm always in favor of life. Don't forget that we are the ones who first receive it. I participate in the process along with the parents, in that moment when emotions are running very high. A birth is in event that is full of emotions. (Gynecologist, male, 52 years old)

The "natural desire" to have a child may stand in for a wide range of motivations that manifest themselves under the guise of maternity, given that the prestige and social legitimacy vested in this role remains unquestioned. According to Lamas, "women must cease to envision themselves primarily in a reproductive role. That is, stop passively accepting the social consensus regarding their status as essentially reproductive agents."(61 p.27) The same could be said of professionals. Even among those that recognize the legitimate right of women to decide with respect to their reproductive life and their power to make decisions on this issue, it was possible to observe expectations for compliance with the social mandate regarding maternity. This social mandate is organized around a conception of maternity as a (hyper)responsibility, morally indisputable and gendered, which has significant effects in terms of interpreting social practices that go against this mandate.

So, yeah, life softens you and makes you see things differently, that life is always, always something to be happy about, it's like a delight, it's like a... it makes you want more, always. So with the prospect of wanting to eliminate a life, it always makes me a little... I don't know how to describe it, it causes me a certain pain, too. But, professionally, I try to be respectful of the woman's decision, you know? (Gynecologist, male, 58 years old)

Life, that source "of delight, of happiness," is associated with the capacity for procreation of women's bodies. When they are confronted with a situation of unwanted pregnancy, some professionals seek to encourage the woman to see herself as a "lifegiver," since "that is what we were trained for," as one physician puts it, or because "a birth is an event that is full of emotions," in the words of one experienced midwife.

Life in and of itself has value and we have to encourage it. As a doctor I was trained for that, to protect life, people's well-being [...] If a woman is going to have an abortion she needs to be conscious of the fact that there is another life inside her. For me that's really important, you know? (Gynecologist, male, 45 years old)

Women that decide to have an abortion take on a political position – most of the time without even knowing it - and this comes with social and emotional costs. Teresa de Lauretis<sup>(62)</sup> points out that subjectivity becomes "gendered" via mechanisms of subjective commitment that individuals invest in certain social representations. These "gendered" subjectivities reproduce and resist, create new meanings and practices confronting institutional mechanisms and discourses that they have in turn produced. The decision to terminate a pregnancy can be interpreted as a counterhegemonic act, of resistance, of autonomy and self-representation, as well as a transgression against gender mandates – a transgression against the "laws of nature." Professionals therefore consider women who have abortions as either "denaturalized," "irresponsible," or "brave," depending on the assumptions they part from when analyzing the woman's decision.

Maternity as a power, as a blessing, as... if you have an abortion you're a heretic and I believe you will continue to be one, even if we are in the 21st century... (Midwife, female, 28 years old)

Every woman dreams of being a mother at some point in her life... (Gynecologist, male, 38 years old)

The medical discourse, as one of the most powerful technologies of gender<sup>(62)</sup> with which to discipline, is confronted with these "practices of the self" enacted by women who decide to have an abortion. Its strategy – with increasingly sophisticated and subtle procedures and mechanisms - seeks to restore domesticity to women's desires and subordinate their decision-making to professional opinions. The pregnancy = life = happiness = celebration construct pervades the discourse of professionals. Its counterpart is the chain of signifiers: abortion = death = pain = psychological trauma = censure. Should these signifiers be considered an unforeseen part of professional practice? What do the professionals do (subjectively speaking) with what they take in from the realities of their "patients," and what to these women do with what the professionals propose?

...if you've been pregnant and you've loved it, it's almost like it is hard for you at times. I always do my counseling and say, "oh, it's so great being a mother, because..." (Gynecological Resident, female, 34 years old, Focus Group)

It upsets me when a woman can't have her child, because of all it represents, but we have to respect the decisions of our patients. I try to see, to talk with her about what chances there are of her keeping that pregnancy, that that's the first thing she has to do. And you start to chip away and see that many of them, unconsciously, want to stay pregnant... you have to take a little time and talk about it... (Gynecologist, male, 62 years old)

Through medical-normative counseling mechanisms, women's decisions are transformed into a pedagogic relation, in which she is advised against making the decision to have an abortion. In this way the "unconscious desire" to remain pregnant surfaces due to the "technical" intervention that seeks to restore her to her place as "a mother." The medical discourse as a technology of gender has been crucial in the production of crystalized meanings with respect to the relation between nature and culture, between sex and gender, and between the body and biological determinism. Healthcare professionals are the bearers of this discourse - its contradictions aside - given that they have at their disposition a wide range of meanings of gender and they are in constant contact with the diverse demands for healthcare services, which originate from subjectivities in better conditions to question dominant systems of gender and sexuality.

### **ENDNOTES**

- a. In 2008, the Defense of the Right to Sexual and Reproductive Health Act (Act 18426) was passed, a law that set the stage for the recognition of sexual and reproductive rights as human rights. It included among its objectives pre- and postabortion care.
- b. Act 9763, which dated from 1938, criminalized abortion and established that a judge could waive the sentence under specific circumstances: cases of rape, family reputation, economic hardship, and severe life-threatening risks to the woman. The law was not implemented in healthcare services in such a way that abortions could be performed in institutions.
- c. In particular the International Conference on Population and Development (Cairo, 1994) and the Fourth World Conference on Women (Beijing, 1995).
- d. The project was initially implemented during 2009 and 2010. Fieldwork continued until mid-2011 as part of the work for my doctoral dissertation, "Healthcare professionals and reproductive

- rights: transitions and disputes in care for women facing abortion in Uruguay (2000-2012)," to obtain the degree of Doctorate in Social Sciences granted by the Faculty of Social Sciences at the University of Buenos Aires, defended in May of 2015.
- e. Civil law defines guardianship [tutela] as an institution whose objective is the protection of persons and the patrimony of persons who have granted power of attorney or who are unable to care for themselves. Guardianship is not only a legal or political figure, but it is also a subjective position, and as Amorós(60) points out, implies low levels of individuality. In the case of women, high priority is placed on care for others, affection, and altruism even when it comes at the cost of personal development. Women are therefore not seen as being able to interpret their own needs, interests, and desires, but rather they need their will to be interpreted by others.

### **ACKNOWLEDGEMENTS**

This research project was financed by the Sectorial Commission for Scientific Research (R+D projects) of Uruguay's Universidad de la República. Special gratitude is due to the professionals who agreed to participate in this study, making possible its completion. The richness of their accounts has been a crucial source of information for comprehending the fluctuations and tensions that permeate their professional practice with reference to incorporating a human rights framework in the field of health care for women facing unwanted pregnancy and abortion.

#### **REFERENCES**

1. Department of Reproductive Health and Research, World Health Organization. Unsafe abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th ed. Geneva: WHO; 2011.

- 2. Guttmacher Institute Facts on Induced Abortion Worldwide. Worldwide Incidence and Trends. New York: Guttmacher Institute; 2012.
- 3. Abracinskas L, López Gómez A. Mortalidad materna, salud y aborto en Uruguay. Montevideo: MYSU; 2004.
- 4. Abracinskas L, López Gómez A, (org). El aborto en debate: Dilemas y desafíos para el Uruguay democrático. Montevideo: MYSU; 2007.
- 5. Johnson N. El tratamiento de la despenalización del aborto en el ámbito político-parlamentario. In: Johnson N, López Gómez A, Sapriza G, Castro A, Arribeltz G, (coord). (Des)penalización del aborto en Uruguay: Abordaje interdisciplinario de una realidad compleja. Montevideo: CSIC, Universidad de la República; 2011.
- 6. Briozzo L. Aborto provocado un problema humano: Perspectivas para su análisis estrategias para su reducción. Revista Médica del Uruguay [Internet]. 2003 [cited 12 Aug 2015];(19):188-200. Available from: http://goo.gl/WalSNk.

- 7. Ministerio de Salud Pública. Medidas de protección materna frente al aborto provocado en condiciones de riesgo, Ordenanza 369/04. Montevideo: MSP; 2004.
- 8. Menéndez EL. Hacia una práctica médica alternativa: hegemonía y autoatención (gestión) en salud. México DF: CIESAS; 1983.
- 9. Menéndez EL. Modelo Médico Hegemónico: transacciones y alternativas hacia una fundamentación teórica del modelo de auto atención en salud, en Arxiu D'etnografia de Catalunya: Revista D'antropologia Social. 1984;(3):83-119.
- 10. Martínez A. Antropología de la salud: Una aproximación genealógica. In: Prat J, Martínez A, (eds). Ensayos de Antropología cultural. Barcelona: Ariel Antropología; 1996. p. 369-381.
- 11. López Gómez A, Benia W, Contera M, Güida C. Del enfoque materno-infantil al enfoque de la salud reproductiva: Tensiones, obstáculos y perspectivas. Montevideo: Facultad de Psicología, Universidad de la República, Fundación Mexicana para la Salud; 2003.
- 12. Schraiber LB. Acción técnica y acción moral en los profesionales de la salud. In: Castro R, López Gómez A, (eds.). Poder médico y ciudadanía: El conflicto social de los profesionales de la salud con los derechos reproductivos en América Latina. Montevideo: Facultad de Psicología, Universidad de la República; CRIM-UNAM; 2010.
- 13. Lourau R. El análisis institucional. Buenos Aires: Amorrortu; 1994.
- 14. Bourdieu P. El sentido práctico. Buenos Aires: Siglo XXI Editores; 2007.
- 15. López Gómez A. Salud sexual y reproductiva en la agenda de investigación y formación en Psicología en Uruguay: Consideraciones conceptuales, nudos críticos y desafíos [Internet]. Montevideo: Conferencia Inaugural Académica, Facultad de Psicología, Universidad de la República; 2013 [cited 12 Aug 2015]. Available from: http://goo.gl/Pi115i.
- 16. Parsons W. Políticas públicas: una introducción a la teoría y la práctica del análisis de políticas públicas. México: FLACSO; 2007.
- 17. López Gómez A. Aborto legal en Uruguay: el largo proceso para garantizar el acceso a la salud y los derechos reproductivos de las mujeres. In: Cavenaghi S, Cabella W, (org). Comportamiento reproductivo y fecundidad en América Latina: una agenda inconclusa. Río de Janeiro: ALAP; 2014.

- 18. López Gómez A, Abracinskas L. El debate social y político sobre la ley de defensa al derecho a la salud sexual y reproductiva en Uruguay. Montevideo: UNFPA; 2009.
- 19. Mujer y Salud en Uruguay (MYSU), Observatorio Nacional en Género y Salud Sexual y Reproductiva. Informe 2010: Profesionales de la salud y salud sexual y reproductiva: Estudio sobre percepciones, valores y prácticas. Montevideo: MYSU; 2010.
- 20. Mujer y Salud en Uruguay (MYSU), Observatorio Nacional en Género y Salud Sexual y Reproductiva. Informe 2009. Montevideo: MYSU; 2009.
- 21. Mujer y Salud en Uruguay (MYSU), Observatorio Nacional en Género y Salud Sexual y Reproductiva. Informe 2008. Montevideo: MYSU; 2008.
- 22. López Gómez A, Carril E. Aborto voluntario y subjetividad en contextos de penalización: Efectos y significados en mujeres, varones y profesionales de la salud. Psicología, Conocimiento y Sociedad. 2010;1(2):36.
- 23. Sanseviero R. Barreras: Investigación y análisis sobre el acceso de las mujeres a decidir. Montevideo: Ruda, IPPF, AUPF; 2008.
- 24. Foucault M. El nacimiento de la clínica: Una arqueología de la mirada médica. México: Siglo XXI Editores; 1983.
- 25. Foucault M. Microfísica do poder. 2a ed. Rio de Janeiro: Graal; 1984.
- 26. Canguilhem G. El conocimiento de la vida. Barcelona: Anagrama; 1976.
- 27. Boltanski L. Puericultura y moral de clase. Barcelona: Editorial Laia; 1974.
- 28. Illich I. The medicalization of life. Journal of Medical Ethics. 1975;1(2):73-77.
- 29. Freidson E. Profession of medicine: A study of the sociology of applied knowledge. New York: Dodd, Mead and Company; 1970.
- 30. Freidson E. Professional dominance: the social structure of medical care. New York: Atherton Press; 1970.
- 31. Zola I. La medicina como institución de control social. In: De la Cuesta Benjumea C, (comp). Salud y enfermedad: Lecturas básicas en sociología de la medicina. Medellín: Universidad de Antioquia; 1999. p. 23-46.

- 32. Zola I. Sendas que conducen al médico: Cómo una persona se convierte en paciente. In: De la Cuesta Benjumea C, (comp). Salud y enfermedad: Lecturas básicas en sociología de la medicina. Medellín: Universidad de Antioquia; 1999. p. 162-184.
- 33. Turner B. Profesiones, conocimiento y poder. In: De la Cuesta Benjumea C, (comp). Salud y enfermedad: Lecturas básicas en sociología de la medicina. Medellín: Universidad de Antioquia; 1999. p. 187-222.
- 34. Castro R, Bronfman M. Teoría feminista y sociología médica: bases para una discusión. Cadernos de Saúde Pública. 1993;9(3):375-394.
- 35. Valls-Llobet C. Mujeres, salud y poder. Madrid: Ediciones Cátedra; 2009.
- 36. Esteban ML. El género como categoría analítica: Revisiones y aplicaciones a la salud. Donostia-San Sebastián: Gakoa, Tercera Prensa; 1999.
- 37. Barrán JP. Historia de la sensibilidad en Uruguay: Tomo 2, La sociedad disciplinada. Montevideo: Ediciones de la Banda Oriental; 1993.
- 38. Barrán JP. Medicina y sociedad en el Uruguay del novecientos: El poder de curar. Montevideo: Ediciones de la Banda Oriental; 1992.
- 39. Schraiber LB. O médico e suas interações: a crise do vínculo de confiança. São Paulo: Hucitec; 2008.
- 40. Schraiber LB. Medicina tecnológica e prática profissional contemporânea: novos desafios, outros dilemas. Interface-Comunicação, Saúde, Educação. 1998;2(2):215-216.
- 41. Castro R. Génesis y práctica del habitus médico autoritario en México. Revista Mexicana de Sociología. 2014;76(2):167-197.
- 42. Chiarotti S, García Jurado M, Aucía A, Amihiardi S. Con todo al aire: Reporte de derechos humanos sobre atención en salud reproductiva en hospitales públicos. Rosario: INSGENAR, CLADEM; 2003.
- 43. Tamayo G. Bajo la piel: Derechos sexuales, derechos reproductivos. Lima: CMP Flora Tristán; 2001.
- 44. Scott J. Género: ¿todavía una categoría útil para el análisis? La Manzana de la Discordia. 2011;6(1):95-101.
- 45. Ortner S. ¿Es la mujer con respecto al hombre lo que la naturaleza con respecto a la cultura? In:

- Harris O, Young K, (comp). Antropología y feminismo. Barcelona: Anagrama; 1979.
- 46. Ortner S. Entonces, ¿es la mujer al hombre lo que la naturaleza a la cultura? Revista de Antropología Iberoamericana. 2006;1(1):12-21.
- 47. Fernández AM. La mujer de la ilusión: Pactos y contratos entre hombres y mujeres. Buenos Aires: Paidós; 1993.
- 48. Young IM. Vida política y diferencias de grupo: una crítica del ideal de ciudadanía universal. In: Castells C, (comp). Perspectiva feminista en teoría política. Barcelona: Paidós; 1996.
- 49. Flax J. Psicoanálisis y feminismo: Pensamientos fragmentarios. Madrid: Ediciones Cátedra, Universitat de Valencia; 1990.
- 50. Morin E. Introducción al pensamiento complejo. Barcelona: Gedisa; 1992.
- 51. Giberti E. Parto sin temor: el poder que perdemos. In: Fernández AM, (comp). Las mujeres en la imaginación colectiva: Una historia de discriminación y resistencias. Buenos Aires: Paidós; 1992.
- 52. Bourdieu P. La dominación masculina. Barcelona: Anagrama; 2000.
- 53. Castro R. Indicios y probanzas de un habitus médico autoritario: el caso de las recomendaciones de las comisiones de derechos humanos en el campo de la salud reproductiva. In: Agoff MC, Casique L, Castro R, (coord). Visible en todas partes: Estudios sobre violencia contra las mujeres en múltiples ámbitos. México: Editorial Porrúa, CRIM-UNAM; 2013. p. 145-165.
- 54. Minayo MCS. La artesanía de la investigación cualitativa. Buenos Aires: Lugar Editorial; 2009.
- 55. Plummer K. Los documentos personales: Introducción a los problemas y la bibliografía del método humanista. Madrid: Siglo XXI Editores; 1989.
- 56. Miles M, Huberman M. Qualitative data analysis: A sourcebook of new methods. London: Sage Publications; 1984.
- 57. Berger P, Luckmann T. La construcción social de la realidad. Buenos Aires: Editorial Amorrortu; 1998.
- 58. Lamas M. Entre el estigma y la ley: La interrupción legal del embarazo en el DF. Salud Pública de México. 2014;56(1):56-62.

- 59. Becker H, Geer B, Hughes E, Strauss A. Boy in White: Student Culture in Medical School. Chicago: University of Chicago; 1964.
- 60. Amorós C. Mujer: participación, cultura, política y Estado. Buenos Aires: Editorial de la Flor; 1990.
- 61. Lamas M. Política y reproducción: Aborto, en la frontera del derecho a decidir. México: Editorial Janés; 2001.
- 62. De Lauretis T. La tecnología del género. In: Diferencias. Etapas de un camino a través del feminismo. Madrid: Horas y Horas; 2000. p. 33-69.

#### CITATION

López Gómez A. Tensions between the (il)legal and the (il)legitimate in professional health practices regarding women who seek abortion. Salud Colectiva. 2016;12(1):23-39.

Received: 10 July 2015 | Revised: 4 October 2015 | Accepted: 1 December 2015



Content is licensed under a Creative Commons

Attribution — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).

**NC** Noncommercial — You may not use this work for commercial purposes..

http://dx.doi.org/10.18294/sc.2016.857

This article was translated by Joseph Palumbo.