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Network of Perceptions on Water Services in the COVID-19 Era

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Abstract

Grosso modo, the quality of municipal services depends on an agreement between users and authorities, but not in a governability sense in which the differences between the parties prevail and state intervention is hegemonic, but from a co-responsibility logic in which the actors focus their interest on building a common agenda. The purpose of this paper is to review and discuss the theoretical, conceptual and empirical frameworks related to the factors that determine the quality of municipal services. A documentary work was carried out with an intentional selection of sources indexed to national repositories, considering the year of publication.

Keywords

Structure; Model; Variable; Correlation; Consumption

Introduction

The pandemic was addressed with anti-COVID-19 policies that were structured according to a traffic light (WHO, 2022). The color red indicated confinement and risk prevention. The green color the suppression of preventive measures and social lack of confidence [1]. In both scenarios, water consumption intensified (OCDE, 2022). Before the pandemic, scarcity, unhealthiness and famine marked the public agenda [2]. After the pandemic, the three axes are still in force in the media and electronic networks. A review of the literature would open the discussion about the configuration of the relationships between the reported findings. In other words, the pandemic generated water policies that allowed the media to record them and analyzes to be published in the literature. The advantage that this process entails for the elaboration of public policies extends to water governance.

Municipal water services, for the purposes of this study, refer to a state management and administration system on which civil society is dependent to the extent that ecological crises, natural disasters, and environmental catastrophes intensify, generating reliability, farsightedness and defenselessness in vulnerable sectors of civil society [3]. In this way, following the influence of the guidelines of the Earth Summits, civil protection policies and strategies have disseminated a perception of risk that reflects the degree of dependence and inaction of citizens with respect to their own security and in the face of threats. threats of the effects of climate change on community health [4]. It is a dual process that, in a global sense, subjects civil society to the designs of expert panels, which exclude from them analyzes the sense of community, rootedness and attachment to the place of origin, uses and local customs. On the other hand, in a regional sense, the policies of assistance to the population in disaster situations and civil protection generate perceptions of scarcity and consumerism, excluding citizens from initiatives, debates, agreements and responsibilities of caring for their environment for the benefit of their own collective health and that of generations of future species [6].

In such scenarios, studies of municipal water services have succeeded in explaining a direct, positive and significant relationship between austerity policies and the care of resources, but they have exacerbated the differences between the governors and the governed by targeting resources based on the increase of tariffs, subsidies and forgiveness in accordance with local and regional electoral processes [6,7]. Even among civil society, asymmetries have prevailed due to the increase in rates in which those with more income consume resources disproportionately and those who do not have sufficient income are forced to allocate a third to the supply of increasingly scarce resources [8]. Therefore, a review and discussion of the theoretical, conceptual and empirical frameworks related to municipal water services will allow us to notice a differential panorama between political and social actors, as well as between those who have access and financing regarding vulnerable, marginalized and excluded sectors. [9-10]. Such an exercise will allow anticipating conflicts between sectors and rulers in order to resolve their asymmetries and build a common agenda for the sustained conservation of resources and corresponding municipal services [11-13].

A documentary, cross-sectional and exploratory work was carried out with an intentional selection of

sources indexed to national repositories such as Clase, Conacyt, Latindex, Redalyc & Scielo, considering the year of publication and the inclusion of the keyword: "Hydric Services", "Hydric Agenda" and "Saving Water". Using the Delphi technique, the data was processed, comparing and integrating the information to establish a state of knowledge matrix. The project falls under the discipline of Social Work, an area of documentary studies, and includes terms from the psychology of sustainability, environmental sociology, and ecological economics. The project was funded by the National Council for Science and Technology, registration number: 48087.

Theory of the perception of water services

The theoretical frameworks that explain the differences between the governors and the governed with respect to the management and administration of municipal resources and services are: 1) agenda setting theory, 2) co-responsibility theory, 3) co-government theory. Municipal services, from the agenda-setting, co-responsibility and co-government approaches, reflect the differences and similarities between the governors and the governed regarding the management and administration of municipal resources and services, but the degree of influence between one and the other actor is explained by each of the approaches [9-10]. Thus, the agenda-setting perspective has shown that, in a symbolic dimension, the differences between authorities and users of municipal services are exacerbated and lead to conflicts. This is so because the intensive dissemination of messages related to the scarcity of resources and the consequent shortage of supplies, promote a theme of attribution of responsibility to the government for the quality of municipal services and distance citizens from their maintenance and care [11-13].

The importance of this symbolic panorama of state responsibility and social judgment lies in the legitimization of conflicts between users and authorities for the self-defense of community assets such as aquifers, or the galloping demand for housing units for the regularization of supply based on of the deregulation of multi-family buildings [14]. Based on a logic of plausibility, which consists of witnessing scarcity and shortages promoted in the media, the vulnerable, marginalized or excluded sectors confront their authorities, but other sectors, based on a logic of verifiability that consists of comparing the quality of the local service with other public services, legitimize the increase in rates, subsidies and forgiveness, exacerbating the differences between the actors [15]. Both logics explain the dependence of civil society on state management and administration, but by noting conflicts between the actors, they anticipate citizen self-government in which the State will be excluded from decisions and collective actions [5].

Well, self-government, indicated by self-management and civil self-administration in the face of a weakened State stewardship, are explained by the theories of co-responsibility and co-government as stages of transition to governance [16]. If the theory of setting the agenda highlights the limits of the democratic political system in terms of quality in public services, the co-responsibility approach anticipates a concerted negotiation and administration between government and society, but not in an institutional sense but, more or from civil participation and the new state institutionalism [14]. Unlike bureaucratic systems, dedicated to controlling and monitoring institutional processes, post-bureaucratic governments delegate observation, evaluation and initiative to civil organizations, sheltering municipal

policies in veto power [11-13].

In this transition phase, co-responsibility inevitably leads to co-government, governance or government agreed upon by political and social actors. This is so because once trust and commitment agreements have been reached, the actors involved must institutionally guarantee their responsibilities within the framework of governance rather than in the system of institutional competence characteristic of democracy [9-10]. Precisely, in this phase of transition towards governance, municipal services reflect the quality of the co-management system insofar as they evidence not only the agreements but also the synchronies between the actors. In democracies, the state is only in charge of organizing elections and promoting values for that purpose, but in the new co-government system, authorities and officials compete with their civil counterparts and necessarily negotiate until they reach a common agenda [9-10]. Indeed, the co-government theory, unlike the consensus-oriented co-responsibility theory, warns that an election is only a competition scenario, but not between parties but between state institutions and civil organizations. It is in the electoral contest where the differences between the governors and the governed emerge, but not from the unilateralism of the governing State, but from the opportunities of influencing local budgets [6-7].

In this scenario, municipal services are no longer only observed by citizens. They are also managed by organizations merged with state institutions. This guarantees the transparency and accountability that distinguishes the governance of democracies. It is in this instance of communication between the parties that an information system of access, questioning and universal monitoring will emerge from the effects of plausibility and verifiability [9-10]. The co-government theory warns that municipal services would be a reflection of the agreement between the parties, even if they are defined in the first instance by the availability of resources, they are determined by the information processing capacities of the parties [8]. In this way, the co-government is an information system that reveals the imbalances regarding the entry and exit of information, which is determined by the capacity for agreement between government and society, but no longer in a sense of austerity or waste, but from a universal position regarding the preservation of the human species, which requires the participation of other species for its development [9-10].

Studies of Municipal Services

The models of municipal water services can be analyzed from a logic of centrality and periphery. From this nomenclature, it is possible to notice that Sustainable Development is a central issue or node that involves climate change, global warming, the greenhouse effect and carbon emissions as environmental factors that have a direct impact on the quality of the environment. air and respiratory health in economically developed cities and economies, but in addition to air pollution, water and municipal waste problems are central issues in the economic and urban periphery because the natural resources of the southern hemisphere they are transformed into satisfiers for the northern hemisphere, as is the case of crude oil and its derivatives [17]. In this system of centrality and periphery, the psychology of sustainability seems to be divided into two aspects in which the psychology of the South tries to understand and explore the knowledge and rationalities, spaces and risks that derive from the impact of the exploitation and transformation of the nature on the lifestyles of the communities [18].

For its part, the psychology of sustainability in the northern hemisphere is more concerned with describing and explaining the effects of climate change on management, innovation and entrepreneurship networks that are developed in developed economies than in emerging economies [6-7]. In the northern hemisphere, the psychology of sustainability began the description of the quality of the environment and environmental awareness to arrive at the study of trajectories and structures of variables in equation models in order to predict unfavorable behaviors or those linked to sustainability, equity and happiness [19]. The models of structural equations, trajectories, structures and disturbances had their antecedents in correlation and regression studies from which the associations that allowed the modeling of dependency relations between variables were established [20]. Although structural equation models are based on covariance, correlations and regressions allowed the specification of models [21]. For this reason, in a sustainable development scenario, the agents around the central node of knowledge interact to shape a balanced system where centrality depends on the periphery, north from south, east from west.

However, the state of knowledge tends to configure a descriptive network of environmental problems, although the studies are also oriented towards the explanation of trajectories and structures in which the themes are integrated into models in order to be able to anticipate the effects of the problems. in the psyche and behavior [9-10]. Thus, a review of psychological studies on sustainability from 2019 to 2022 shows that values, perceptions, and beliefs are the determining variables of consumption. In this sense, the three variables are considered exogenous to attitudes, intentions, skills and use [22]. Values imply relationships of interdependence between nature and communities (biosphereism), rooted relationships between groups based on ecosystem diversity (communitarianism), competitive relationships between human beings (individualism) based on the scarcity of resources and balanced relationships between generations (sustainability) based on the austerity of current humanity, future technologies and the availability of resources [23].

Perceptions denote involuntary exposure to risk, the absence of control of the situation (uncertainty) and skepticism towards the information generated by civil protection institutions [24]. In this sense, the perception towards normal and strange risk situations is explicitly represented from experiences and non-experienced information [25]. Therefore, it implies indication of danger, prevention, contingency, management and protection; expectation that determines an action, and quick solution reaction [26]. They can be defined as an immediate and simplified response to the dangers and uncertainties that determine judgments, decisions and behaviors [27].

Beliefs are presented as disorienting (dominant social paradigm, paradigm of the human exception, anthropocentrism, materialism, progressivism and utilitarianism) and as guiding (new environmental paradigm, conservatism, ecocentrism, naturalism and austerity) of human behavior towards the protection of the environment. environment [28]. The beliefs that prevent sustainable development denote that human behavior and economic growth are exempt from the laws of nature and therefore such growth is only determined by technological progress [29]. In contrast, the beliefs that favor

sustainable development imply the rethinking of anthropocentric visions, the establishment of limits to economic growth, the importance of ecological balance, the necessary sustainable development[30]. The beliefs around the supremacy of human needs over the processes of nature, the consequent conception of the balance or imbalance of human needs with the processes of nature and the consequent unlimited or limited economic growth, are presented with a different degree inter culturally, economically and generationally [31].

Modeling of Municipal Services

The status of research on the psychological effects of water services in cities warns: 1) the prevalence of an asymmetric relationship between the rulers and the ruled with respect to risk perceptions in the face of water scarcity and shortages; 2) the defenselessness of the vulnerable sectors around the supply, subsidy and forgiveness policies; 3) the extrinsic motivation of users with respect to the increase in rates and penalties. In this framework of politics and collective inaction, psychological studies have advanced towards the establishment of an agenda focused on governance, an equitable system of rates and co-responsibility materialized in eco-taxes, but it detaches from identity, attachment and sense of community.

Therefore, specialized studies on the impact of local policies on residential water consumption, mediated by psychological factors such as perceptions, dispositions, motives and intentions, are reviewed and discussed in order to generate a conjunctural panorama and anticipate scenarios of conflicts between the actors. , noting a trend towards the prediction of rational, deliberate, planned and systematic behavior that, however, is dissociated from cooperative and supportive lifestyles.

Studies of municipal services have established three axes of discussion around the governance of water resources and the corresponding municipal services, centered on the presumption of public and private goods as the cause of the formation of consumers and equity as an effect. of co-responsibility in urban projects of large or compact cities [8]. Studies of municipal services indicate that the risks associated with the effects of climate change on local farmers generate a system of strategies focused on loss prevention, since financial resources disentail threats do not include natural disasters [9-10] Studies by municipal services have focused on the effects of climate change on local food security, warns that risk perceptions in coffee growers intensify to the extent that droughts, floods and landslides prevail, which affect local agricultural production and reduce the entrepreneurial and commercialization capacities of migrants in the Huasteca region of central Mexico [9-10].

Studies of municipal services warn of a growing demand, but a significant reduction in the availability and quality of water services in the framework of local tandem policies, conflicts between users and authorities, as well as the emergence of indicators of corruption such as the deterioration of the facilities, the prevalence of leaks and the sale of water [9-10].

Studies of municipal services have shown that municipal policies for supplying and charging for water services are not centered on an agenda of co-responsibility, but on an agenda of growing supply in response to local market demands [9-10]. Studies of municipal services have been disseminated in the

public agenda based on criteria of co-responsibility in decision-making and in actions aimed at the conservation of municipal water resources and services, but based on asymmetries in terms of access and dissemination of issues in the media, the rulers have a greater penetration and interference in the establishment of issues such as the increase in rates and the promotion of voting through policies of subsidies and forgiveness [11-12-13]. Studies of municipal services have shown that the associations between factors exogenous to the lifestyles and behaviors of the users of the public supply system are related, but not in a specific or direct sense, but rather are generally mediated by local policies such as the system of fees, subsidies and forgiveness [11-13].

Studies of municipal services warn that the relationships between cultural variables (values) and ideological variables (beliefs) are the axes of discussion in the local public agenda. That is to say, it is considered that both culture and ideology influence the individual through the values and beliefs that are amplified in the discourses of the people and that the individual captures, learns and reproduces in a specific situation [32]. In this sense, the irregular water supply characteristic of modern cities and peripheral cities is associated with values and beliefs regarding its exclusive availability for human consumption or its shared availability among species [33]. Studies of municipal services warn that, at the local and municipal level, the prevalence of social representations focused on water scarcity as a result of local corruption explains the sociopolitical identity that is distinguished by its high degree of farsightedness and defenselessness [11-13].

Collectivist societies such as the Asian, Latin and Eastern European ones are characterized by biospheric-altruistic values and ecocentric beliefs that favor caring for the environment by considering it as their habitat and the species as their fellow sisters of coexistence (Hidalgo & Pisano, 2010). Regarding unhealthiness due to deficient or non-existent hydrological infrastructure, communities and popular neighborhoods show solidarity for the self-care of children [34]. To the extent that unhealthiness increases, community solidarity also increases. European and North American societies, in contrast, are characterized by individualistic values and anthropocentric beliefs. Even in collectivist migrant groups residing in these societies, a change in values and beliefs is observed that brings them closer to individualism and anthropocentrism [35]. The availability of water, associated with the values of over-exploitation and the beliefs of abundance of the resource, guides the development of a model in which the increase of the two cultural and ideological variables is evidenced to the extent that information is increased. on the abundance of water [36].

The influence of the individualistic and anthropocentric social structure is also observed in the countries with emerging economies (Brazil, Russia, India, China) that will be developed in the coming decade. These are economies that move from collectivism to individualism, from biosphereism to industrialism, from ecocentrism to anthropocentrism [37]. Economic growth is associated with public investment in hydrological infrastructure. The energy and hydrological projects are correlated with the needs of the cities. The investment around the public water service is associated with the increase in the population in the cities, its dimensions, services and migration [38]. Water consumption registers an increase in its rates associated with scarcity in peripheral neighborhoods [39]. The shortage of water linked to unsanitary conditions and implicated in epidemics increases infant deaths.

Studies of municipal services, focused on the relationships between spatial variables (designs), economic variables (risk and utility), educational variables (knowledge) and individual variables (attitudes, skills, intentions, behaviors) have shown that The effects of climate change on environmental public health are centered on the high levels of stress and resilience, which reflect the asymmetry between civil protection policies and the collective actions of vulnerable groups such as communities and neighborhoods affected by floods, landslides or flooding [14].

In the case of community resilience, understood as a response shared by a group of people facing a common extreme situation, this was mostly observed in groups of older adults with respect to landslides, floods and storms, indicators of the effects of climate change on local public health [15]. Studies of municipal services have shown that attitudes, in terms of dispositions against or in favor of local nature conservation policies, is a determinant of decision-making centered on the preference and intention to vote for candidates and parties oriented towards conservation. social responsibility [40]. Studies of municipal services on the influence of buildings on individual perception have shown that aesthetics, functionality and design have a direct, positive and significant effect on customer satisfaction [41]. Subsequently, studies on the influence of masses inside buildings on human behavior showed that overcrowding, noise or density are factors that determine customer stress [42]. Finally, studies on the influence of events inside buildings on individual cognition have shown that people form attitudes towards events, buildings, and spectators [43]. Buildings linked to hydrological biosafety (drinking water reserves) demonstrate the relevance of health policies, epidemic contingencies, pandemic catastrophes, competition for resources, and community solidarity [44].

In industrial economies with neoliberal policies, polluting behaviors have been associated with utilitarian perceptions, rational attitudes, and technological knowledge [45]. Hydrological projects are designed to increase personal utility rather than social utility. That is, the drinking water service is only available for those areas that can pay the cost of the service [8]. In post-industrial economies with social policies, conservative behaviors have been linked to risk perceptions, affective attitudes, and social knowledge. Hydrological projects are linked to services of all kinds. It is about supplying commercial areas linked to tourism [46].

In informational economies with sustainable policies, ecological behaviors have been linked to perceptions of responsibility, global attitudes and organizational knowledge. Hydrological projects are linked to sustainable regulations that require equitable hydrological availability between areas and species [5]. From associative studies, both exogenous and endogenous, economic, political and social structures that influence individuals have been abstracted [47]. The correlation analyzes show the consumption models that blame individuals for the global deterioration and place isolated actions as the solution to the global problem. In the face of environmental scarcity, shortages and unhealthiness, it is argued that environmental education is the indicated action to prevent such situations and eco-taxes (fines and incentives) are effective fiscal strategies for sustainable development [48]. Associations, both exogenous and endogenous, guide the design of structural theoretical models. A causal relationship

between a variable X and a variable Y underlies an exogenous association between a variable W and a variable X. Or, the determinants of a variable Z underlie the associations between W, X and Y. That is, from causal relationships are inferred from associations. If there is a significant association between the independent variables, there may be causal relationships between them [9-10].

If there are spurious associations between the independent variables, there may be causal relationships with a dependent variable. A positive and significant correlation between scarcity, shortages and environmental unhealthiness allows the elaboration of a model in which water saving is determined by the three environmental situations. A negative and significant correlation between the three variables allows a design in which the waste of water is the expected effect. A spurious correlation between the three environmental situations guides the design of a model in which other variable situations would be explaining the waste or saving of water [14-15].

Method

Due to the fact that water services are reported in the media, it was proposed to carry out a review of the literature during the period of the pandemic that goes from the beginning in 2019 to the present in April 2022. A documentary investigation was carried out, cross-sectional and exploratory with a selection of sources indexed to national repositories such as Clase, Conacyt, Latindex, Redalyc and Scielo, considering the search by keywords: "Water services", "Hydric agenda" and "Water saving" (Table 1).

	2019	2020	2021	2022
Water Services				
Clase	4	6	6	7
Conacyt	6	7	4	6
Latindex	4	5	5	4
Redalyc	3	4	3	5
Scielo	5	3	6	6
Hydric Agenda				
Clase	7	4	3	4
Conacyt	5	5	4	6
Latindex	2	3	3	5
Redalyc	4	6	2	6
Scielo	5	7	6	7
Water Saving				
Clase	8	5	4	5
Conacyt	6	3	3	6
Latindex	5	6	2	3
Redalyc	4	2	5	4
Scielo	2	3	7	6

Table 1: Descriptive of sample. Source: Elaborated with data study

Delphi Inventory was used to encode the information. Expert judges on the themes of the water agenda and behavior for sustainability rated the selected abstracts. From a scale that goes from 0 = "not at all agree" to 5 = "strongly agree". In three rounds, one qualifying, one feedback and one more reconsideration or reiteration, the data was processed in Excel.

The data was processed in the JASP version 14 program. The estimated coefficients dealt with the structure, centrality and grouping. Values close to zero were assumed as evidence of structure, centrality, and clustering. Values close to unity were assumed as evidence of dispersion in the relationship structure, centrality, and grouping.

Results

Figure 1 show the structural relationships of the indicators and the nodes related to the categories of analysis: Water services, water agenda and water saving. It means then that the literature concerning the three categories is structured according to the expectations of water services and the corresponding agenda rather than the prevention of scarcity, unhealthiness or famine by saving water.

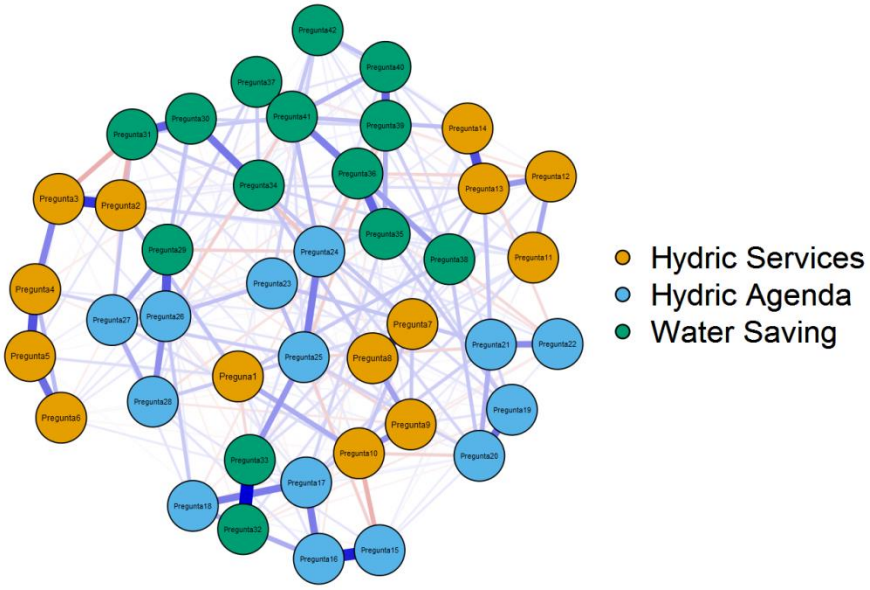

Figure 1: Network. Source: Elaborated with data study

Figure 2 shows centrality values that highlight a short distance between nodes. The learning from the establishment of the agenda and the quality of water services stands out with respect to saving water as a risk prevention mechanism. In other words, expectations regarding municipal supply services, the collection system and the establishment of the public agenda follow a learning trajectory.

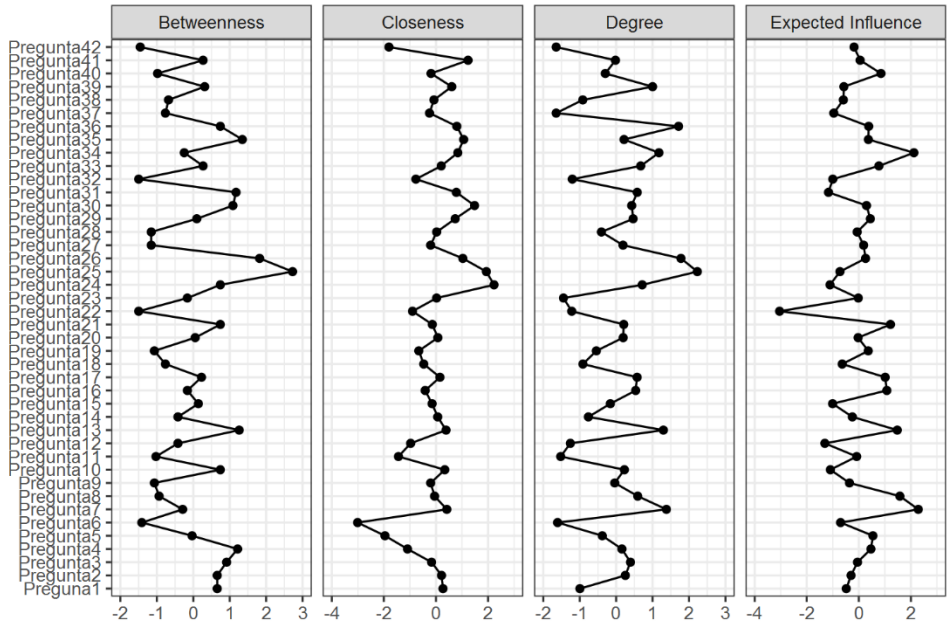

Figure 2: Centrality Source: Elaborated with data study

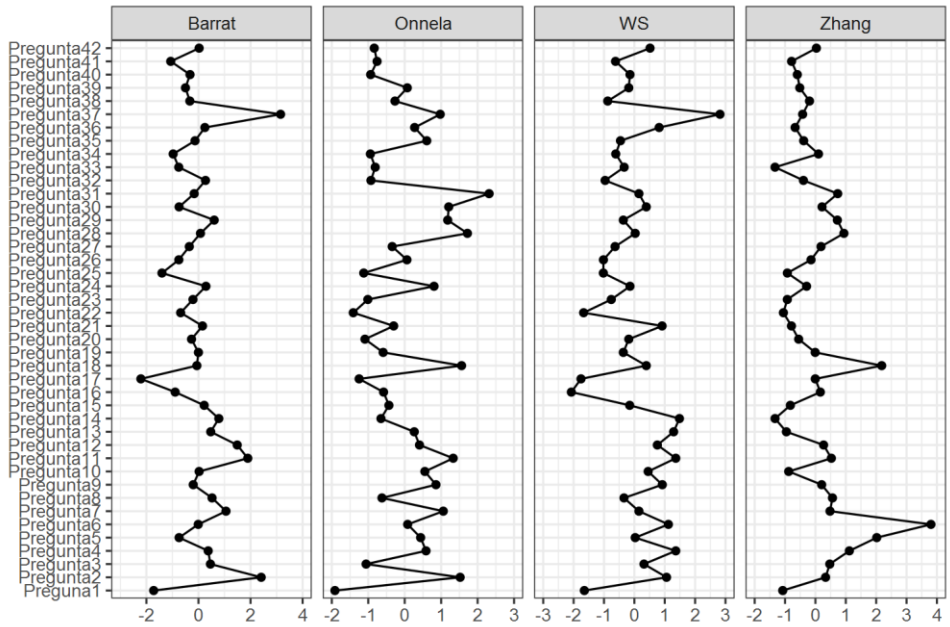

Figure 3: Clustering Source: Elaborated with data study

The grouping parameters refer to the configuration of water services, the agenda and savings around water governance. The conflicts, agreements and shared responsibilities in the investigations on the water system suggest a learning oriented to the quality of the service more than to the prevention of risks.

The results show a prevalence of the expectations of water services and the public agenda in the matter. The prevention and communication of risks that the literature reports as a hallmark of the local water system is not reflected in saving water as the axis of the central issues.

Discussion

Studies of municipal services suggest that the associations between situational, cultural, cognitive and behavioral variables show their dependency relationships that, for the development of Environmental Social Work (TSA), built from objective indicators, would complement their research models. and intervention to discuss the inclusion of exogenous variables in reference to endogenous variables through theoretical and structural models, considering the Ibero-American context in which they were carried out.

In this way, studies of municipal services carried out in Mexico show that the reasons for saving water are associated with dosage behaviors. To the extent that users of the public supply service want to pay less for the volume consumed, they develop skills and styles of austerity. The discussion around post-studies of municipal services will allow establishing a consumption rate system based on the correlations between water situations and consumption styles, thus contributing to the construction of models for the TSA [8].

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In this scheme, Environmental Social Work acts as a mediator of supply policies and civil demands considering the limitations of space, time and infrastructure, but the generality of its dimensions, categories and variables inhibit the analysis of the subjectivity inherent in the objective indicators. of sustainability. Therefore, it is necessary to delve into the psychological, cognitive and behavioral dimension, in order to be able to establish the needs, expectations, demands and individual or community capacities in the face of environmental crises and the shortage of water resources [49].

Studies of municipal services have focused on the study of the relationships between water availability per capita and water consumption, they have shown that significant associations between the amount of water supplied and waste or savings according to volume per capita have established associations between cultural and cognitive factors. By virtue of the aforementioned findings, they have opened the discussion regarding the cost of the public drinking water service estimated by conventional tariff criteria in which the inclusion of dispositional, situational, cultural, cognitive and behavioral factors would make the collection system more efficient, sanctions and subsidies [9-10].

The logic of the studies of municipal services would also influence the design and implementation of

public policies that allow financing Government Public Action (APG) in the face of the increase in problems of water scarcity, shortage and unhealthiness. Based on causal and correlational diagnoses, studies of municipal services propose theoretical-structural models that make it possible to increase or decrease the consumption rate considering the causal and associative relationships between the variables involved [8].

The statistical bivariate correlation estimated with Pearson's “r” parameter allows an abstraction of the concrete relationships associated with a variable X and a variable Y. The strength of association between a variable X and another variable Y is known as correlation. It is an analysis in which the associated relationships between the variables that make up a cultural, social, community, economic, political, institutional, corporate, educational or family structure are established. This structure is evidenced in a model in which the variables and constructs explain the influence of the structure on individuals. The model is built from the associated relationships between the variables to infer their causal relationships. Regarding water scarcity, the exogenous and endogenous associations between values, beliefs, perceptions, attitudes, skills and intentions guide its modeling as determinants of water waste or savings [16].

However, the studies of municipal services seem to be oriented towards the establishment of tariffs by considering water as a resource and users as consumers. In a supply system, the State provides public supply services without considering the availability trend per capita. In other cases, the administrative authorities discretionally determine consumption rates [8]. Studies of municipal services have established significant relationships between intermittent supply and the austere use of water. However, such findings are unrelated to the rate systems since the research projects have not considered the possibility of exploring the conformity or nonconformity of the users with respect to the public service and the local environmental policy carried out by their rulers [11-13].

Precisely, exposing the scope and limits of the studies of municipal services regarding water problems will open the discussion regarding the conflicts between authorities in charge of providing the drinking water service and the users who receive a lower volume compared to other localities and regions. Within the framework of Sustainable Development, the water problems of scarcity, irregular supply and unhealthiness seem to be sufficient to inhibit water comfort defined as the minimum volume per capita to carry out activities and satisfy basic needs associated with capabilities, skills, skills and knowledge will allow humanity to overcome the thresholds of extreme poverty and their inclusion in public services will be an indicator of local and regional development [9-10].

From the findings reported in the state of knowledge of the studies of municipal services, it is possible to outline the axes and topics of discussion for Environmental Social Work and to be able to contribute to the construction of an agenda on municipal housing and water services. to increase quality of life, subjective well-being and social responsibility [15]. Based on studies of municipal services, it is possible to define an intervention model in which social services include the relationships between spatial, temporal, cognitive and behavioral variables with respect to quality of life [5].

Studies of municipal services warn that the prediction of behavior favorable to ecological balance and, consequently, to saving water is determined by a deliberate, planned and systematic information processing system in which beliefs, perceptions, motives and attitudes determine the intentions to carry out sustainable lifestyles [9-10].

This is the case of the study carried out by [50] in which equity and habitability are indicators of the perception of subjective well-being. In this model, citizen demands for housing are articulated with real estate public policies through the assumption that social protection and security is inherent in the perceptual construction of the habitat. In this way, socio-economic studies or the mediation of conflicts over water supply use the relationships between availability and consumption. The beliefs, attitudes and perceptions are linked to the perception of an efficient service and the equitable distribution between neighbors and between species are indicators of the quality of municipal services that are reflected in the evaluation of government action and the performance of its ministries. environmental.

In the case of the training of social workers for the undertaking of social services oriented to water sustainability, the studies of municipal services warn that it is the categorizations that the students make that will determine their self-management capacities. In this sense, the research by [51] shows that social responsibility is a central factor in the training of social entrepreneurs. In this area, studies of municipal services indicate that social responsibility is the product of categorizing information concerning the abundance or scarcity of water. That is, social responsibility emerges in the face of intermittent supply as an individual response to anticipate social problems or conflicts between authorities and users of the drinking water service. If the individual considers that it is unfair to pay an increasingly higher rate per unit of water, then they will be more willing to confront the authorities for an intermittent supply at a lower cost [4].

Finally, with respect to the Environmental Social Work proposal of [53], it is possible to note that the quality of life in its objective dimensions of resources and public services can be complemented with a subjective dimension related to well-being and social responsibility. However, social responsibility alludes to civic virtues that the Psychological Studies of Sustainability have recently incorporated, but have not empirically demonstrated. It is necessary to delve into these dimensions in order to establish a more comprehensive research and intervention model that links the environmental, economic, political, social and cognitive dimensions not only for a better diagnosis and evaluation of public policies, but also to establish a public agenda aimed at Sustainable development.

The present work has exposed the studies of municipal services. Based on significant associations between cultural, dispositional, situational, cognitive and behavioral factors, studies of municipal services have established causal models to predict water wastage or savings. Mainly, it is the extrinsic and intrinsic reasons for saving water that affect the care, optimization and reuse of the resource [9-10].

The diversification of austerity is due to a system of beliefs or exogenous factors that, associated with attitudes, determine water saving. To the extent that beliefs of abundance intensify, users of the drinking water service seem to trust that the public service will supply them with a volume of water

greater than the expected average. Such expectation affects the waste of water when using it in their residences. In contrast, beliefs related to scarcity and the prolongation of droughts are linked to dispositions favorable to the care of water. Even for extrinsic reasons such as economic benefits, people are satisfied with the shortage situation and adapt to the circumstances by significantly reducing their consumption [9-10].

However, the diversification of austerity also leads to extreme water reuse behaviors that are not favorable to the health of communities and neighborhoods on the periphery of development. Coupled with scarcity and shortages, unhealthiness complements the cycle of water catastrophe. In the areas surrounding the cities, the public water supply and sanitation service is innocuous. Faced with such a situation, the communities face the problem through extreme unhealthy strategies that consist of reusing soapy water or rainwater for the toilet. In the medium and long term, children from communities and peripheral neighborhoods develop water-borne diseases, which represent five million deaths in economically emerging countries [6].

Until now, studies of municipal services have not explored the effects of the diversification of frugality and austerity as well as the consequences of environmental public policies on tariff systems, conflicts, clientelism and corruption reported by the media. Communication. Studies of municipal services in the field of correlations have only reported the relationships between cognitive and behavioral factors. That has been his main contribution to environmental problems [8].

Studies of municipal services have contributed to the demonstration of hypothetical relationships and the construction of causal models that allow the development of interdisciplinary theories, methods and techniques. Studies of municipal services have established significant relationships between cultural, dispositional, spatial, and situational variables with cognitive and behavioral factors. Such findings have made it possible to delineate consumer tariff systems as an instrument of legitimacy of the State and its public policies regarding environmental problems [9-10].

The Attitudinal Theories of Reasoned Action and Planned Behavior, the main reference frameworks for the study of municipal services, have been developed from the exposed discoveries. If beliefs are exogenous factors that explain the diversification of water frugality, then they would be linked to socioeconomic and sociodemographic factors from which it would be possible to infer profiles of users of the public drinking water and sanitation service. Such inventories would serve to update the rate systems, subsidies and sanctions [14].

However, studies of municipal services seem to move towards neurocognitive models that explain prospective situations of water scarcity to predict future behavior and, consequently, water supply, consumption and price systems. Studies of municipal services carried out in the northern hemisphere have been influenced by liberal economic approaches in which the rates of public resources and services are deregulated by the State, but establish their conservation based on their scarcity. This perspective guarantees the capacities of future generations for their development in the face of imminent climate change. In developed and emerging economies, or rather, economic centrality,

sustainability is synonymous with regulation of the energy and water market. In this way, northern psychology has been able to anticipate the impact of fatalistic scenarios on human behavior [15].

In contrast, studies of municipal services taking place in the southern hemisphere have established the effects of State deregulation on communities. As public resources and services intensify, subsidy systems increase not as a function of the scarcity of resources, but as a function of the relationship between the governors and the governed. In this sense, psychological studies of the sustainability of the South have tried to understand the symbols, meanings and meanings of local development in order to link community knowledge with city rationalities, respect for nature and its species with the consumerism of urban services [49].

Studies of municipal services in the northern hemisphere have established the topics of debate on the agenda of those who govern in developed and emerging economies to warn of the energy crisis that is coming. In contrast, studies of municipal services in the southern hemisphere have established the axes of discussion for the understanding of communities and the exploration of neighborhoods in terms of resources and public services in a situation of scarcity, vulnerability, marginality and exclusion [9-10].

However, psychological studies in the South seem to be moving closer to describing and explaining climate change as its effects intensify in communities and neighborhoods on the outskirts of cities and economic and financial capitals. This is so because those who suffer more and more from natural disasters, environmental catastrophes, droughts, hurricanes, floods or overcrowding will have to develop lifestyles in accordance with the scarcity of water and food, the proliferation of water-borne diseases and conflicts over supply of public services [9-10]. Therefore, Environmental Social Work has before it the opportunity to integrate the findings reported in the state of knowledge in a comprehensive model that allows an efficient evaluation of public policies based on the subjectivity of the users of the drinking water service.

Conclusion

The water supply system, by generating a public agenda focused on scarcity, unhealthiness and famine, displaces the prevention of these risks by saving water and guides the debate towards public and municipal service as a sociopolitical issue. The results of the study corroborate the assumption that the literature consulted is oriented more towards the mediation of water problems than towards risk prevention. The theory that explains the differences between public policies and social needs warns of setting the agenda as a secondary phase of the conflict between the parties. Therefore, this paper does not reject the hypothesis of significant differences between political and social actors. The public agenda is configured by axes and central themes previously broadcast in the media. The consulted literature reports findings related to three axes: municipal services, agenda and water saving. The three axes of discussion are limited to an agenda that the media can disseminate according to the literature reviewed. Therefore, the subsequent line of research is the comparison of the scientific agenda with the media agenda. The compatibility between the agendas, according to the theory, will make it possible to anticipate a scenario for framing the issues and their influence on public policies.

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