

**Case Report**
**Open Access**

## Specification of a Model for the Study of Transmission of Parasites in the Covid-19 Era

María Luisa Quintero-Soto<sup>1</sup>, Sonia Sujell Velez-Baez<sup>2</sup>, Sofía López de Nava-Tapia<sup>3</sup>, Cruz García-Lirios<sup>4\*</sup>

<sup>1</sup>UAEMEX Mexico

<sup>2</sup>UAQ Mexico

<sup>3</sup>UNAM Mexico

<sup>4</sup>UAM Mexico

### ABSTRACT

The transmission of parasites is very common in spring and summer not only because of the increase in temperature but also as a sequence of winter confinement in which the holidays encourage interaction between infants. In the Covid-19 era, the problem will exacerbate the situation. The objective of the present work was to specify a model for the study of the problem. A documentary and cross-sectional research was carried out with a selection of sources indexed to international repositories, considering their updating and specialization. The axes, dimensions, trajectories and relationships between the categories and variables that explain and anticipate the phenomenon were established, although it is suggested to extend the discussion towards self-care as an intervention strategy rather than health promotion or risk prevention.

### \*Corresponding author

Cruz García-Lirios, UAM Mexico. Email: garcialios@uam.mx

**Received:** March 12, 2021; **Accepted:** March 17, 2021; **Published:** March 22, 2021

**Keywords:** Governance, Health, Disease, Parasite, Intervention

### Introduction

Until March 2021, two million have died from Covid-19 in the world, Mexico being the country with the most under-registrations that would reach the figure of up to 500 thousand deaths if deaths from atypical pneumonia and excess mortality are counted with respect to the average of previous years to 2020 [1]. In this panorama, the mitigation and containment policies of the pandemic have focused their attention on the distancing and confinement of people, with the transition from the traditional classroom to the electronic whiteboard being the central strategy in the case of the educational system [2].

However, the differences between the public and private educational systems have led to radical positions of reactivation of the traditional classroom versus the centralization of content at a distance [3]. The private training schools and institutes have proposed reopening once the immunization of people begins, but the public system is more committed to television content until the entire population is completed. A risk prevails in the midst of these differences that concerns public health, as is the case of dermatological contamination that is accentuated in spring and summer as they are ideal climates for the reproduction of parasites that can be contained with social distancing, but not by prolonged confinement, as infants yearn for interaction and can be infected not only with Covid-19 but also with other parasites [4].

Therefore, the objective of this work is to specify theoretically, conceptually and empirically the community transmission of parasites in the face of an imminent return to the traditional classroom and interaction between students in spring and summer, considering the risks associated with Covid-19 and distancing measures. and confinement of the infected who are not fully followed by the inhabitants of Mexico City.

What are the axes, dimensions, trajectories and relationships between the categories and variables related to dermatological contamination by parasites in Mexico City during the reactivation of the traditional classroom and the interaction exacerbated in spring and summer?

The premise that guides this research is that confinement and social distancing have affected infants in such a way that an eventual reopening of the traditional classroom supposes an excessive interrelation between peers that would induce a community transmission of the SARS CoV-2 coronavirus, Covid-19 and reproducible parasites due to the increase in temperature and the scarcity of water in the marginalized, excluded and vulnerable neighborhoods of Mexico City.

In this way, the contribution of the present work lies in the theoretical, conceptual and empirical review of dermatological contamination by parasites, as well as the discussion of the categories and variables by locating them in axes, dimensions, trajectories and relationships, considering a documentary, cross-

sectional and descriptive study was carried out with a non-probabilistic selection of indexed sources, registered in ISSN and DOI, with the aim of establishing a comprehensive model for the study of an outbreak of dermatological contamination and deriving the Intervention strategies from Social Work in basic education institutions.

### **Theory of Pandemic Dermatological**

This section reviews the classic models of community transmission such as epidemics and pandemics. Its implications are discussed with the diagnosis and intervention of social work, as well as risk prevention, self-care, and health promotion strategies.

Models exponential function models logistic Quételet, Function models of predator and prey Lotka & Volterra, models of propagation of diseases McKendrick and models of dermatological treatment with the aim of establishing an intervention device for the governance of dermatological health in basic public education institutions with an emphasis on health promotion and self-care in vulnerable groups [5-7].

Quetelet's logistic model, the Social Work professional would generate an inventory from which potential victims of dermatological contamination would have to adopt preventive lifestyles by reducing their contact with groups at risk of contagion [5]. Quetelet's logistic function model it is evident that Social Work has established intervention mechanisms and criteria based on the degree of vulnerability of a community.

Locka and Volterra function model would integrate the scenarios of probable exponential contamination with the effects of this contamination in the groups with the highest risk and in attention to the groups at low risk [6]. Warn that, in a situation of epidemic or spread of a disease, cooperation and solidarity are reduced to their minimum expression by a competition between infected or infected with respect to victims or vulnerable groups.

McKendrick propagation model It turned out to be the most complete, although the integration of other models that explain the problem of contact and future scenarios of treatment and prevention is offered [7]. Model of disease spread the interrelation between contagious groups, vulnerable groups and recon tagged groups supposes power relations that Social Work has established from its intervention models to increase the influence more than power relations between groups. Propagation model closest to the requirements of cooperation and solidarity for the governance of dermatological health, includes not only the groups affected by the disease.

In summary, the three models presented allude to a social work that is predictive of community transmissions rather than reactive in the face of pandemics. These are three proposals that focus their attention on health crises but highlight contingent scenarios as part of risk prevention. In this sense, social work, by anticipating these threatening scenarios, can intervene to direct the problem towards a situation of cooperation and solidarity between the parties involved.

### **Studies of Pandemic Dermatologic**

This section reviews and discusses the areas of social work in the face of pandemic or community transmission of parasites, as well as models of intervention and prevention of health risks such as illnesses and accidents. Theoretical and conceptual axes and dimensions are established for the analysis of dermatological contamination by parasites to be able to elaborate a modeling

proposal based on the classic studies of the epidemic and sanitary crisis.

From these data the Social Worker of an institution of basic health promoted through images the scene of deteriorating health due to lack of hygiene and broil or daily staff among students , even if social work is linked to economic development and the stability of a public management system [8]. These are devices in which the social worker generates information that counteracts beliefs about the spread of diseases such as parasites, even though the identity of Social Work is centered on a desire for collaboration and support [9]. Thus, by promoting formation on cultural, economic and social, logarithmic results would make decisions for or against the separation of groups infected and at - risk groups and the rescheduling of its activities within the classroom or outside [10].

The scenarios of future interactions in which new outbreaks in other groups and the contagion of the first cases would generate a high-risk scenario, but with enough information to reduce its exponential and logistical effects , even though the practical intervention of Social Work does not coincide with the academic or professional training [11]. Because medicine was sensitive to the social impact of epidemics in the 19th century, the history of public health, health policies and dermatological programs, and strategies for prevention and health promotion are areas of research and knowledge multidisciplinary in which Social Work acquires greater relevance by establishing an approach with vulnerable groups such as infants [12]. In this sense, both items, health promotion and social care for diseases, pandemics or epidemics are central issues of management and administration in health policies that, Social Work assimilated as a continuum of abnormality and normality established in the Enlightenment [13]. Precisely, in achieving objectives, preparing tasks and obtaining short, medium and long-term goals by health professionals in general and health professionals. Social work. In this sense, the elaboration of cartographies related to social imagery would reveal these lifestyles and risk behaviors [14].

It is a surveillance, follow-up and co- responsibility system between authorities and potential victims of diseases, epidemics, or pandemics [15]. Industrial Social Work was one of the first disciplines to notice the exclusion of workers in occupational health and anticipated the importance of their participation in the prevention of accidents and diseases [16]. They also have a small head with a buccal apparatus prepared to itch the scalp and suck the blood they feed on [17].

Nits differ from dandruff in that the first ones show great resistance when they are tried to be removed and cannot be removed with a simple wash. Social promotion as a management tool for disease prevention is a labor competence that Social Work can implement immediately in the face of an epidemiological outbreak [18]. From a constructivist approach, Social Work, by emphasizing social education or non-formal education, assumes that a contagion scenario in a short period requires the promotion and training of capacities aimed at adapting the environment, to the change and interaction that could reduce an epidemiological outbreak [19].

To ensure their adherence to the hair, they secrete a sticky and insoluble substance to water that fixes the nit to the hair shaft, in this phase, the collaboration of Social Work with health professionals, mainly with the pharmaceutical specialist, is such an effectiveness that benefits the immediate care of those infected [20]. The louse does not discriminate race or social status and despite the myths of most Mexicans, it is not a matter of poor hygiene, but they

are spread by contact between people in closed places such as schools, work centers, families, prisons and hospitals. In this sense, Social Work by promoting comprehensive health: economic, social and educational takes on special relevance in the prevention of diseases [21].

In summary, the theoretical and conceptual frameworks of social work explain dermatological contamination from the promotion of health, self-care, and risk prevention. In the case of the parasitic pandemic, risk prevention is essential since it anticipates contagions and guides containment towards a scenario of minimum risks and maximum profits [22]. Based on a diagnosis of the socioeconomic, educational, labor and personal conditions, social work proposes an intervention of the cases, assuming that mitigation policies such as social distancing and confinement will have an imminent effect on the reactivation of the traditional classroom, the Social work predicts this scenario and intervenes with a staggered deconfinement strategies where infants are made aware of the risks to their health and personal hygiene.

### Modelling Of Pandemic Dermatologic

The models that explain the community transmission of viruses or parasites anticipate catastrophic scenarios from which it is possible to intervene with prevention strategies. In this sense, the modeling of the central categories of a problem, as well as its dimensions and trajectories of determining relationships make up a comprehensive approach [23]. It is about systematically observing the indicators of the problem, as well as the factors that decrease or increase them. In this way, social work has built intervention models based on biosafety protocols, but in a reactive rather than predictive sense. Even the classic models of epidemiological or pandemic research postulate scenarios that could only be observed if the agents and actors follow a logic of cause and effect.

Rather, the proposal for modeling the categories of risk, information, and behavior follows a sequence of decisions that depend on the interaction itself between infants. This is so because its volitional development consists in the adoption of conventions [24]. In this way, if their families assume that the SARS CoV-2 coronavirus pandemic and Covid-19 are not a risk, then the dermatological infections of parasites will not be represented as a problem either. Therefore, exacerbated interaction is very possible considering the prolonged confinement and distancing of infants from their peers.

It is possible to notice this axis of misinformation until contagion, but it is also feasible to note that an informed family does not always translate these data to infants because they consider them a minor adult who is capable of digesting the situation and acting accordingly [25]. In other words, a scenario of high risk of contagion by parasites would only reflect an unhealthy environment in a confinement context where maintenance of the facilities is zero or minimal, as well as the availability of resources for personal hygiene and self-care of the Health.

Therefore, the proposal lies in the observation of both axes and the construction of intervention protocols that reduce exposure to risks through the massive dissemination of content aimed at self-care rather than risk prevention: the difference is substantial because it represents a knowledge management from the translation of scientific findings for its dissemination in coping strategies in the face of the reactivation of the traditional classroom [26]. These are protocols in which the parties involved must establish agreements and co-responsibilities, but not based on the local or institutional economy but from a common welfare.

### Conclusions

The contribution of this work to the state of the question lies in the establishment of a model for the study of dermatological contamination by parasites in a foreseeable scenario of deconfinement and reactivation of the virtual classroom. The review, discussion, and modeling point towards a self-care strategy rather than risk prevention since, the distancing of people and social confinement, as they are indicators of pandemic mitigation, represent an exacerbated interference in schools. In addition, the classic models consulted recommend focusing attention on the interruption of the chain of infections from individual rather than collective action. This is so because the social work that consists of providing information for the individual's decision-making has focused on those cases where the need for information is continuous and prolonged, as well as the monitoring and follow-up of the cases. Thus, social work to reduce community transmission of parasites should include a knowledge management strategy, data processing for direct, personalized and one-way risk communication [27].

### References

1. World Health Organization (2021). Historical oceanic and surface temperature. Ginevra: WHO <https://www.who.int/es>
2. Panamerican Health Organization (2021) Statistic for coronavirus SARS CoV-2 and Covid-19 disease of the Americas. New York: PAHO <https://www.paho.org/es>
3. Dominelli L (2021) Una perspectiva del trabajo social verde en el trabajo social durante la época del COVID-19. *Revista Internacional de Bienestar Social* 30: 7-16.
4. Cordel N, Grotta G, Guyomard S, Hermann C (2021) Examen viral en las Americas durante la infección pandémica del SARS CoV-2: ¿Dengue o Covid-19? *Revista Internacional de Dermatología*, 60 <https://doi.org/10.1111/ijd.15421>
5. Quetelet A (1848) *Du systeme social et des lois qui le regissent*. Paris: Guillaumin.
6. Lotka AJ, Volterra V (1956) *Elements for psysical biology*. New York: Dower
7. McKendrick, AG *Applications of mathematics to medical problems*. *Proceedings of the Edinburgh Mathematical Society* 44: 98-130.
8. Ribeiro M, López R, Mancinas S (2007) Social work and social policy in Mexico. *International Journal of Social Sciences and Humanities*, 17: 175-200.
9. Reid P (2006) The purpose of a school of social work. An American perspective. *Social Work Education* 25: 461-484.
10. Walker S (2015) The pendulum swings back: relation based social work in England then and now. *Journal of International Scientific Publications*, 13: 49-56
11. Raudava C (2013) The impacts for developing the profession of social work in the post- communist context. *European Scientific Journal* 9: 12-30.
12. Abreu MA (2009) Social health work in primary health care. *Nursing*, 3: 70-79.
13. Carballeda AJ (2004) *Intervention in the social, exclusion and integration in the new social settings*. Buenos Aires: Paidós.
14. Carballeda AJ (2006) *Social Work from a historical perspective focused on intervention. From the order of bodies to the outbreak of society*. Buenos Aires: Paidós.
15. Carballeda AJ (2008) *The fragmented bodies. Social intervention in the scenarios of exclusion and disenchantment*. Buenos Aires: Paidós.
16. Cheeran M, Renjith G (2015) Scope of social work profession in industrial establishment. *International Journal of Advances Research in Management and Social Sciences* 4: 315-326.
17. Dominelli L (2012) *Antidepressive social work theory and*

- 
- practice. Social Work 14 : 2013-215
18. López E, Chaparro M (2006) Labor competences of the social worker seen from the labor market. Tabula Rasa 5: 261-293.
  19. Duque A (2013) Social intervention methodologies. Palimpsestos of the models in Social Work. Bogotá: Epilogues
  20. Farinde A, Gable K (2014) Interprofessional practice approach between social work and pharmacy. International Journal Social Work 1: 70-77.
  21. Despard M, Chowa G (2010) Social workers 'interest in building individuals' financial capabilities 1: 23-41.
  22. Golightley M, Holloway M (2020) Social work in time of Covid-19 pandemic: all in this together? Brithis Journal of Social Work 50: 637-641.
  23. Sen R, Featherstone B, Gupta A, Kerr C, MacIntyre G, et al. (2020) 'Reflections on Social Work 2020 under Covid-19 Online Magazine' Social Work Education, 39: 1116-1126.
  24. Adiss Y, Abate D (2021) Respuestas del trabajo social y determinantes a nivel de los hogares de la preparación para el coronavirus de las zonas rurales de Etiopía. Trabajo Social en Salud Pública 36: 85-97.
  25. Chigangaidze RK (2021) Factores de riesgo y efectos del morbus: Covid-19 a través del modelo biopsicosocial y el enfoque de sistemas ecológicos para la práctica del trabajo social. Trabajo Social en Salud Pública 36: 98-117.
  26. Ozmen S, Ozkan O, Ozer O, Zubaroglu M (2021) Investigación del miedo, el bienestar y la satisfacción con la COVID-19 en la sociedad turca. Trabajo Social en Salud Pública 36: 164-177.
  27. Way, M (2013) Feminist theory, lesbian parents and social work. Synchrony, 17: 1-20.

**Copyright:** ©2021 Cruz García-Lirios, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.