

Social determinants and mental health problems. Theoretical and technical implications

Marcelino Lópeza*, Margarita Laviana

Spanish Association of Neuropsychiatry, Spain.

*Corresponding author.

Email address: marcelino.lopezal@gmail.com

Abstract: The relationship between different types of social factors and different mental health problems, as shown by a considerable number of sociological and epidemiological studies, has important theoretical and technical implications. In the first case, because of its repercussions in the field of psychopathology; in the second, due to its effects on the fields of preventive intervention and health and social care. The article analyzes these different implications, from a narrative review of the available literature, trying to draw from them useful consequences for our professional approaches.

Key words: social determinants; psychopathology; public health; mental disorders

1 Introduction

Several decades of research allow us to affirm that the set of variables summarized in the expression "social determinants" has significant relationships with the origin, evolution, and possibilities for treating different health problems [2], both general and specific to mental health. Two previous articles [3,4] have summarized both areas (general and specific) respectively of that information, using it here as a starting point.

Since the classic report by the World Health Organization [5], which in 2008 marked the culmination of an international process of information gathering and analysis coordinated by Michael Marmot, a continuous accumulation of studies and reviews has shown the association between a wide range of social variables and various health problems, including many mental health issues [3,4]. However, some aspects remain unclear, especially the specific characteristics of these relationships and the specific mechanisms that would explain them.

The report [5] made recommendations on preventive and care interventions, which, however, have not been consistently implemented by the organization's member countries. And, perhaps more for this reason than for any possible inadequacy of the approach, they are far from having generated reasonably satisfactory solutions to these problems [2,6].

The topic has both theoretical and practical or technical implications, at least in three of the classic "axes" or applications of epidemiological information [7], starting with the possible etiological role that these different factors, separately or in coordinated constellations, may have in the origin and evolution of different mental health problems, a relevant aspect in the theoretical field of psycho(patho)logy. It also has practical implications, both in the field of public health, as a basis for preventive interventions, and in clinical and social care, as a complement or alternative to traditional

interventions.

In each of these areas, the issue continues to pose problems, given the current state of our knowledge. Thus, recognizing, on the one hand, that social determinants play a role in the emergence, evolution, and potential care for addressing mental health problems does not mean, despite an understandable and easy simplification, that they are the direct cause of these problems. Since this possible causal effect, beyond statistical correlation, has nuances that must be assessed in each specific case. These nuances should be incorporated into the complexities of our psycho(patho)logical problems [8].

Based on our current knowledge, the feasibility of effectiveness and usefulness of preventive policies are also debated, given the complexity of relationships and the difficulties inherent in prevention in the face of complex causal networks [3], compounded by the difficulty of modifying structural factors. The same applies to personalized care: the possibilities for effective intervention from clinical and social intervention settings are limited, since the effect of many determinants precedes the onset of problems in specific individuals.

In this context, and in line with previous articles [3,4], we attempt to analyze these repercussions, their difficulties, and their relevance to our professional practice in greater depth. To this end, we have updated the corresponding literature searches¹ for the last two years, using similar criteria. Our aim is always to provide information that summarizes the "state of the question" and stimulates personal reflection and collective debate on a topic of growing interest.

In order to summarize the above information [3,4], we highlight the following points, which we consider essential for analyzing their implications:

- a. Firstly, the wide range of factors studied is striking, both in relation to health problems in general and specifically to mental health. Since the WHO defined "social determinants" as " the conditions in which people are born, grow up, work, live, and age (...), shaped by the distribution of money, power, and resources" [5]. Studies have explored a wide range of factors of varying significance [3,4], always finding a peculiar pattern of association (what Michael Marmot called the "social gradient" or "status syndrome" [2,9]): the more unfavorable people's social situations are, the higher their levels of pathology. As he summarized succinctly: "the poor have worse health" [9].
 - b. To account for this diversity and explore possible etiological explanations, we must organize the various factors into hierarchical levels, according to a predictable order or trajectory of action, from the most general to the most specific. A useful framework (Figure 1) is proposed by British epidemiologist Ruth Bell [10] from the Institute of Health Equity (also directed by Michael Marmot), which expands on the initially proposed framework by the WHO [3,5]. In summary, we must consider at least three levels to group the main factors whose interaction with specific individuals contributes to health problems:
 1. A structural level, which includes variables of culture, socioeconomic and general political structure, and characteristics of each country.
 2. An intermediate level, in which structural variables determine different groupings of people into strata defined by economic, educational, cultural, or employment variables, as well as gender and ethnicity (in their social dimensions).
 3. A more proximate level, which encompasses the distribution of specific risk and protective factors across these different strata, with a significant component of personally enacted behaviors that are socially determined.
 - c. The variety of health problems related to this set of factors is also striking. On the one hand, despite the evolution of disease patterns from communicable to chronic diseases (the so-called "epidemiological transition"), the patterns of effect graduation remain unchanged [3]. On the other hand, highly diverse problems (e.g.,
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cardiovascular diseases and mental disorders) are related to similar types of factors [3,4].

- d. In relation to mental health, within this coincidence of factors, there are some specific nuances. Thus, although the most general factors (structural and intermediate) are basically the same, in the most immediate factors, that is, in the specific risk and protective factors determined by the former and which interact with the specific "bodies" of individuals, we find fewer direct effects and a greater impact of subjective aspects, with the meaning personally attributed to a social factor or circumstance seeming to determine its effect [4,10-12]. This, as we shall see, has to do with the peculiarity of known or supposed psycho(patho)logical mechanisms [3,4]. However, in order to put this specificity into perspective, we must not forget the results of the Whitehall studies by the aforementioned Michael Marmot [9,13], which show the role of psychological and psychosocial variables in all the pathologies studied, not just those related to mental health [3,14].
- e. There are different theories about the mechanisms of action of social determinants, some of which are comprehensive and even contradictory [1,15], but in general they point to effects that can be combined in causal explanations. Among the most interesting ones, applicable to mental health problems, we find:
 1. The general role of stress, as a common summary of the effect of different factors that overload people's defense mechanisms [16], especially in a continuous and cumulative manner. The interaction of these factors with personal variables ("constitution" and coping skills) and protective factors (such as relationships, social "networks") would explain the onset and evolution of the pathology.
 2. The cumulative effect of many factors throughout life, with dynamics of incorporation and active bodily registration of different variables of the life context, as summarized by Nancy Krieger's concept of "embodiment" [1,3,10,17].
 3. In addition to unequal exposure to risk factors, we must also consider the unequal availability of protective resources, including personal and group skills, social relationships, and access to health and social services. This aspect is emphasized by Bruce Link and Jo Phelan in their theory of "fundamental causes" [3,11,18], recently revised [19] and with some interesting proposals for development, such as that of Alice Riley [20], which also highlights the central role of social stratification.
 4. And always through a gradation of effects, from the most structural factors (defining the context that determines the others) to those that most directly affect individuals, with the key intermediate level of different forms of stratification, which distribute risk and protective factors unevenly. It should not be forgotten that the single term "risk factor" (strictly a factor associated with an increase in the prevalence of the problem under study) includes very different things in terms of their possible etiological role [21,22]. And that, in any case, its effect is only part of the complex causal network of health and disease processes, as evidenced by the not always consistent data on prevalence and social situations [23].

2 Social determinants and psychopathology

As we have already mentioned, this information is of at least threefold interest, with significant cross-cutting implications. On the one hand, referring specifically to mental health problems, the identification of causes or risk and protective factors should serve to improve our psycho(patho)logical knowledge [8]. On the other hand, it should reinforce our intervention technologies, both those of a population nature, within the framework of public health, and those of an individual nature, in the more strictly clinical and social care sphere.

As for its impact on psycho(patho)logy, we need to assess the extent to which this information helps us understand the specific mechanisms of the pathology we label as "mental"[8]. And here we encounter some problems.

- a. The first is the lack of systematicity and consistency of what we call "psychopathology" and its obvious limitations. In contrast to what Carlos Castilla del Pino [4] proposed, psychopathology is still far from being a scientific discipline that, within the field of psychology, explains the mechanisms of abnormal behaviors that we label as mental illnesses or disorders [8,24] in a manner symmetrical to how general pathology extends the field of physiology by describing and explaining its alterations [8].
- b. At the same time, there is relative imprecision in the causal analysis of the various factors identified. This is largely due to methodological difficulties, already noted in previous articles [3,4], which affect not only mental health problems but all health problems, whose etiology remains unsatisfactorily resolved [22,23].

We find diverse positions here, some of which, in our opinion, are clearly misguided. To summarize, on the one hand, we have those who dismiss the role of social factors, understanding mental health problems as reductionist "biological" disorders with a significant genetic component [1,25]. This position is in the minority when it is explicit, but more abundant than expected when, without explicit assertions, it determines reductionist approaches to care in practice. On the other hand, we have the symmetrical attempt to directly attribute diverse mental pathologies to social causes, with consequences that are no less reductionist in terms of preventive interventions or direct or clinical care ².

In between lies the unfinished attempt to construct an authentic psycho(patho)logy [24] as a systematic (ultimately scientific) procedure for describing and explaining normal psychological functioning and its anomalies, considering psychological mechanisms as resulting from the interaction between biological and social factors, but respecting their emergent nature with respect to both [8,26].

In reality, what we know is compatible with and reinforces the validity of vulnerability models, combining the interaction of some type of personal disposition or susceptibility with social risk and protective factors, through general stress mechanisms [8,27,28]. These complex mechanisms underlie various health problems (especially so-called "chronic pathologies") and not only mental health problems, although the latter present different nuances [13,27].

To add to the complexity, it must be borne in mind that some social determinants also play a role in the progressive configuration of conditions of vulnerability, which do not have only biological "causes" [15,29-31]. They also influence the subsequent evolution of many of these problems, favoring or limiting their chances of recovery [32].

It should not be forgotten that the assessment of certain social factors, especially those that place people in different strata (in terms of education, employment, money, or power), must consider not only possible causal relationships, but also, conversely, the social repercussions of health problems in processes of 'social selection,' which, depending on the case, play complementary or alternative roles to those of strict causality [33].

The issue presents important nuances in different types of problems, especially when we compare "severe" mental disorders (SMD) and "common" mental disorders (CMD). In the former, we find clear effects of social selection [33], but also complementary trajectories of social origin or "causation," as shown by vulnerability models, such as Luc Ciompi's model for schizophrenia [29]. These models incorporate epidemiological information on social factors (child abuse, urban environments, immigration, etc.) as part of the complex network of causes of the process [34], which facilitates the establishment of reasonable intervention guidelines [29,35].

In the case of the latter, with greater weight given to social causation [29], it is worth highlighting interpretative models such as the aforementioned model by George Brown and Tirril Harris on depression [36] or the broader model by David Goldberg and Peter Huxley on "common" mental disorders (CMD) [37,38]. Both cases attempt to organize the various social factors and their intervention in the origin, symptomatology, and evolution of the most frequent types of processes in our field.

An important aspect, particularly noteworthy for its practical consequences, is that, as with other health problems, the presentation of the disorder, from an interactive causal constellation between vulnerability, risk factors, and protective factors, does not necessarily imply its automatic disappearance after controlling or eliminating the risk factors. In fact, in both SMD [34] and CMD [36-40], the factors associated with the onset, development, and, where applicable, resolution of the problem are often different and, once established, especially the most serious ones, frequently require specific interventions, usually by professionals. There is no unambiguous factor-disorder relationship, as each risk factor does not always cause a disorder, a disorder is not always associated with identical factors (in both "directions" of the association) and can occur without them [22,41]. Furthermore, as Peter Kinderman points out, we must consider "the specific status given to the disruption of psychological processes as a 'common final pathway' for mental disorder, which means that it is only through the disruption of psychological processes that any precursor, whether biological, social, or circumstantial, comes to be expressed and experienced as a mental disorder" [26]. The complexity of psycho(patho)logy is thus hardly compatible with simplistic, "biological" or "social" explanations [8].

3 Social determinants and preventive policies

The second type of repercussions is practical or, as we prefer to say, technological [8,35]. We are talking about the implications of this supposed causal role, which is complex and not always well understood, for our possibilities of intervention. And here, as we have been arguing, we must consider a dual implication depending on whether we aim to prevent new cases or to improve the situation of existing ones—a distinction partly similar to that drawn by Kelsey Lucyk and Lindsay McLaren [2] between "upstream" interventions (targeting the structural context that distributes opportunities and risks) and "downstream" interventions (targeting affected groups, those at higher risk, or those at a clear disadvantage). Accordingly, we will distinguish between preventive measures and personalized intervention measures (both clinical and social). Let us now examine the former, leaving the latter for the next section.

Prevention clearly seems a reasonable strategy for health problems that are difficult to address individually and involve collective or population-level risk and protective factors prior to the onset of disorders [42]. However, this basic public health strategy also presents difficulties and controversies.

To put the issue in context, we should point out that when we talk about prevention in relation to social determinants, we are basically talking about primary prevention [43]. Within the classic model of Hugh Leavell and Edwin Clark [44], the aim is to prevent the onset of problems by acting on the social factors causally related to them. These interventions are therefore not aimed at those who already have the problem, but at those who could develop it in the future if these factors are not corrected. They are intersectoral in nature and not always exclusively or primarily health-related [21,43].

Here we find a strategic public health debate between prioritizing high-risk groups or acting globally on the entire population. This dilemma was formulated by Geoffrey Rose, who considers that the global burden of a disease sometimes depends more on numerous people at low risk than on the minority at high risk [45]. However, it seems appropriate to view them as complementary rather than mutually exclusive alternatives. In the words of Michael Marmot, "to reduce the social gradient in health, actions must be universal, but with a scale and intensity proportional to the level of disadvantage"[9]. The aim is to achieve this by combining "universal prevention" (general population), "selective prevention" (risk groups), and "indicated prevention" (very high-risk subgroups and those in phases close to the onset of the disorder) [43,46,47].

Following our outline, "universal prevention" should be aimed, first and foremost, at modifying structural determinants, which are ultimately conditioning factors for the whole [48,49]. As we have seen, a key role in the causal chain of social determinants seems to correspond to various forms of social stratification, based on money, power, education, occupation, gender, or ethnicity, and the specific relevance of social classes [50,51]. These are sources of

inequality social that unevenly distribute risk and protective factors, including behavioral patterns (“health- related habits or behaviors,” not solely dependent on individual will [1,13,52]). But all derive from our economic, political, and cultural systems [53], although this level does not always appear in studies [54]. A radical population-based approach would require changing these structures or, if this is not feasible or sufficiently effective, partially modifying their effect on subsequent links in the chain—that is, on those forms of social stratification and the risk behaviors they condition. In this regard, we encounter some notable problems:

- a. In general, the problem derives from methodological difficulties and insufficient information, referred to here as the role of these different factors: to what extent do they play a causal role in each type of problem and with what characteristics? Basically, identifying whether or not they are necessary and/or sufficient in each case to cause the problem [55], which is not always reasonably proven.
- b. The difficulty of effectively intervening in the "ultimate" structural determinants [48], whose global, economic, and political nature poses problems that are currently difficult to solve, not only from a health perspective but also from a sociopolitical one. First, because changing social, economic, and political structures involves procedures that are, at the very least, "complex" in our societies. And second, because in order to change them, theoretically and practically feasible alternatives would be needed, and this is far from being the case today in relation to capitalist socioeconomic structures and "actually existing" democracies [3,53,54].
- c. The limits of interventions aimed at counteracting the effect of more structural factors through more egalitarian public policies in education, employment, housing, economic income, and availability of and access to public services. These policies are usually opposed to neoliberal trends and are similar to "welfare state" models. These changes are essential but limited by existing structures, as shown by the debate on countries with long traditions of welfare [54,56,57], which have improved the situation but not eliminated health inequalities. However, the reverse is also true: certain social policies do not radically eliminate inequalities, but they do contribute to reducing them [56,58-60], which is no small feat.
- d. The multiplicity of forms of stratification with verifiable impacts (education, income, occupation, residence, and power, but also gender and ethnicity) [61], with debates about their supposed priority [62] and the specific role of social classes and their relational dimension [51,63,64].
- e. And the complexity of specific risk and protective factors, which are also conditioned by previous levels and not only by individual choices, as some "health education" programs seem to assume (1,52,65).

As a result of these difficulties, we see the persistence of health problems, specifically mental health problems, which are more or less determined by various social factors in our societies, two decades after the promising WHO report [6,47]. However, this overall lack of results should not be understood as a call for inaction, nor should it make us lose sight of the existence of successful programs and interventions in specific, albeit limited, areas of this field [20,56,58,60]. These are partial results that should serve as a reference for us to continue exploring interventions capable of ensuring greater and better effects in our preventive policies, which, despite their difficulties, continue to depend on collective action. As Nelson Mandela said: "Poverty is not an accident," but "like slavery and apartheid, it is man-made and can be eliminated by the actions of human beings" [56]. To summarize:

- a. In general, we cannot immediately and radically change social structures, but we can change the orientation of public policies towards greater equity, better health and social services in the broadest sense, and greater opportunities for social interaction and participation [66].
- b. We can thus limit the effects of inequality through inclusive and redistributive policies aimed at the most

disadvantaged and at-risk sectors [58,59]. The fight against poverty is key [67], with "traditional" possibilities, but also with other more controversial ones, such as "universal basic income" [68,69].

- c. And we can intervene in specific sectors, with positive results in relation to various health problems, including mental health [70] : residential [71,72], employment [73,74], social support and relationships [75], combating stigma [76,77], and access to health and social services [78,79].

These are interventions that often go beyond the professional healthcare framework, but to which we as professionals can contribute, defending and promoting them based on our specific knowledge and also, logically, as citizens, through the corresponding instruments of political and social participation.

4 Social determinants and personal care

Finally, although primary prevention would, at least theoretically, be the most effective social procedure, since it acts before problems arise to reduce their incidence, there remains the field of intervention for those who already present some of these problems, from the secondary and tertiary levels of the classic prevention model [8]. We therefore seek to promote recovery, insofar as it may be conditioned by social factors, from the field of clinical practice and social intervention, with a greater professional role here.

Firstly, it should be remembered that the availability of adequate health and social care is, in itself, an important social determinant [18,78,79] as a protective factor, in interaction with social support and personal resilience [80,81], as opposed to the negative effect of others.

The limitations of intervening "after the fact," when the effect of social determinants on the pathology has already occurred, seem clear, as it is impossible to act on past factors. However, we can try to compensate for some effects [82,83], especially those that remain active, conditioning the evolution of the problems. The aim is both to correct the effect of negative factors and to use compensatory mechanisms, such as "buffers" and supports for personal defenses.

Without precise quantitative data, it seems that, unfortunately, in the area of care that we would refer to as "clinical" in the healthcare sector, it is most common for the effective consideration of social factors to be secondary to that of symptomatology in diagnosis, therapeutic approach, and the development of care [8,84]. At the same time, the needs are more evident in the social sector, although they are not always adequately aligned with health problems and the corresponding healthcare interventions [85,86].

However, there appear to be some reasonably evaluated possibilities for intervention that involve the coordination of health and social services [87-89], the latter being understood in a broad sense to occasionally include educational and employment services. Specifically, the following should be considered:

- a. In general, any intervention must combine sensitivity, knowledge, technical competence, and professional ethics regarding the role of social determinants in order to broaden the focus from the individual to the context [89].
- b. The modification of certain risk factors that continue to act beyond the origin of the health problem, leading to a worse outcome or the emergence of additional problems. This is usually the case, depending on the type of problem, with income, education, housing, and employment [83,88,90], but also with social isolation [82], stigma and discrimination [76], and gender [90].
- c. The management of protective factors, seeking in particular improvements in the social situation and the reinforcement of various social support mechanisms, to counteract the effect of the former [80-82].
- d. The so-called "social prescription"³ [91-93], but not presented in a simplistic way as antagonistic to psychotherapeutic intervention or medication. Thus, in addition to the exercise of trade union rights and political and social participation, which may be useful beyond their general social function, in the case of CMD, group

interaction procedures that are not necessarily professional are effective [38,94]; and in SMD, many of the psychosocial procedures of rehabilitation [35,95] are applicable, as are peer-support interventions [96]. Some programs tend to stand out in particular, such as those for employment for people with SMD [97] or those based on "housing first" models for the accommodation of homeless people [98].

- e. Although many clinical and social service interventions are individual in nature (seeking to have an impact on specific individuals), they can be organized collectively and participatively, prioritizing groups with different levels of impact and risk [75].
- f. Following the title of an article on adolescence ("you can't manage what you don't measure" [99]), we also need quantitative information in this area, with data monitoring on social determinants in local work areas being particularly useful [75,100-102], including community diagnostic procedures similar to those generally used for health problems as a whole [103,104].
- g. And finally, for professionals, there remains the field of "consciousness-raising" and public activism on the issue [8,89], seeking to expand a "historical bloc" that drives necessary and possible changes. And, of course, it is important to include these aspects in their training [105].

5 Conclusions

To conclude, it is worth summarizing the above to draw some conclusions that we consider important for those of us who work in the professional field of mental health.

- a. The first, often repeated, is the undoubted significance of the issue, supported by a growing volume of research and analysis from the social and health sciences, especially epidemiology, straddling both disciplinary fields [8,14]. We thus emphasize that:
 - 1. A variety of social factors have significant, at least presumably causal, relationships with various mental health problems [4].
 - 2. These factors can be grouped into at least three levels, from the most structural to those most immediately related to personal behavior, with the key intermediary of various forms of social stratification [4,10].
 - 3. There are different theories that explain patterns of interaction between these social determinants and problems [1,4], with the central role of stress [15], the interactive accumulation of effects on people's bodies [16], and the limiting effect of support opportunities [17] as the most consistent approaches.
- b. All of this has important implications for our understanding of the emergence and evolution of people's mental health problems, which should be the central focus of our psycho(patho)logy, beyond the usual "classifications" [8]:
 - 1. On the one hand, because the factors related to mental health problems are not fundamentally different from those affecting health problems in general [3,4], placing this psycho(patho)logy as a specific sector (that of abnormal mental functioning) of a general biopsychosocial pathology [8].
 - 2. But above all, because it reinforces the complex approach of vulnerability models, placing pathology as the result of processes of interaction between personal vulnerabilities, stress factors, and protective factors, both internal (resilience and coping skills) and external (social support networks) [3,8]. In this context, social factors intervene in a complex and temporally variable manner on the three elements of interaction, beyond the limited views of "risk factors" and "inappropriate behaviors" [1].
- c. But the implications are also practical, in terms of our intervention technologies:
 - 1. In terms of control possibilities, primary prevention should be able to prevent problems from arising, eliminating or at least reducing and compensating for the action of these different factors, from the most

structural to those closest to people. Substantially modifying the former is complex, to say the least, in our societies, but there are various public policies (intersectoral and not only or mainly health-related) that have the potential to correct this, to which we can contribute with our advice and encouragement, in addition to our general involvement as citizens [4].

2. But without forgetting personalized care, where an intersectoral approach also remains key, now within the field of professional, health, and social intervention. With a biopsychosocial approach both in the assessment of problems and in intervention, expanding the field of classical "social psychiatry" [107] and including the contribution of non-professional interventions and agents.
- d. We also need to continue to explore the subject in greater depth, to increase our knowledge and involvement, from the perspective of epidemiology and the social sciences, combining empirical research and theoretical development [14,108]. The following are particularly important:
 1. The identification of the mechanisms that link the various social determinants to each other and to the various mental health problems.
 2. The evaluation of the various interventions that are available and reasonably promotable.
- e. Finally, it is essential to highlight the strategic role of raising awareness and providing training for professionals across all care sectors [105], as well as for political and media actors, and through them, reach the general population.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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Note:

¹ Literature searches were conducted in Medline and Google Scholar the customary combinations (or cross-searches)

related to social determinants and mental health problems, both general and specific. To this we have now added references to interventions, public health, clinical practice, and social care.

² We thus find, for example, statements that are debatable to say the least, such as some made recently by the Ministry of Health (available at: <https://www.sanidad.gob.es/gabinete/notasPrensa.do?id=6442>), which state that "we often identify that what a patient really needs is not a psychologist, but a labor lawyer" and that it is a question of being able to prescribe, for example, "sports groups instead of Rubifén, feminist associations instead of sertraline, or a union instead of lorazepam." These supposed "social prescriptions," with the forgotten addition of some psychotherapy, should not be seen as necessarily contradictory to those commonly used in a global ("biopsychosocial") approach to our professional intervention. Of course, each of them or their different combinations may or may not have specific justification in each individual situation, which is where it would be reasonable to evaluate them.

³ A continuing education text for primary care [106] defines it as "the process by which a health professional recommends to a patient 'resources' in their own community that are potentially beneficial to their health and well-being."

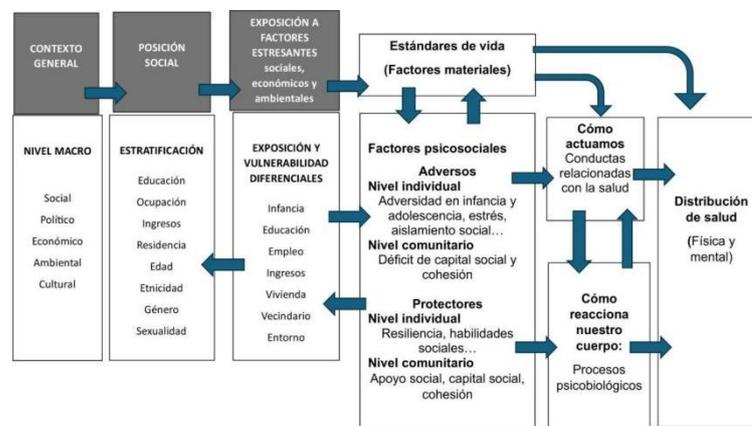


Figure 1 Psychobiological pathways (from social determinants to psychobiological processes and health outcomes) (1