Prevention and Psychotherapy: Downstream and Upstream Models and Methods

Abstract
Models of psychological interventions can be divided into two broad categories: those whose focus is the individual, often framed as psychotherapy, and those that are framed as community where the focus is an entire population. These approaches have largely developed independently and have their own theoretical models and techniques, and see themselves as distinct.

The aim of this paper is to challenge this separation and to encourage psychologists who have an individual focus, in hospital or private practice, and psychologists who intervene with a community focus, to share ideas and to develop a common language so that there is continuity across both models. This will allow them to complement each other and foster synergy, improving results in both areas.

A historical visit will be made highlighting the evolution of the paradigm of preventive models and their evolution, and will focus on perspectives’ interaction between individual and group psychotherapy and prevention models, in what the increase of populations’ well-being is concerned.

Keywords: Prevention; Learning theories; Change; Flexibility; Language; Cognitive-behavioral models; Psychotherapy; Openness; Diversity

The Paradigm of Prevention and Its Contemporary Models
Prevention has been a field of interest in the world scenario and, over the years, the preventive model has been modified. Arguably, the first clear model of prevention was elaborated by Caplan [1] in three levels: primary, secondary and tertiary. Primary prevention was meant to target the general populations in order to minimize the appearance of new cases; the secondary prevention involved interventions with populations that have a higher risk of developing a problem, and the tertiary prevention aimed to reduce the impact on the group of people whose are already suffering from the relevant condition.

There has been some criticism arising from the fact that both secondary and particularly tertiary prevention were more like treatment or health maintenance interventions, as they were already associated with problems’ solving. Partly to address these concerns, another classification was published by Gordon [2], where the terms universal, selective and indicated were used as an alternative to Caplan’s model.

Universal prevention is one that includes actions aimed at the general population, while the focus of selective prevention is for smaller groups that are at specific risk. The indicated prevention is directed at people with risky behaviors, as early as possible when an early individual level sign is identified.

Both models have some difficulties as in practice, the populations concerned, and the interventions themselves are not as clear...
cut as the model would suppose. However, they have provided a pragmatic way of categorising in broad terms the aims of a preventive program.

The implementation of universal prevention can be considered an aspect of a human rights’ approach (https://www.universal-rights.org/blog/high-commissioner-speaks-on-human-rights-resilience-and-prevention/), due to its equitable character that favors the access of all people to interventions that can raise the quality of life, health and well-being. However, it is also true, as a recent discussion has pointed out, that selective prevention actions, which focus on specific behavior problems and risk factors, needs to be implemented in conjunction with universal prevention, in order to increase the quality and reach of the intervention program.

Another discussion has argued that universal prevention measures may become potential sources of inequity, emphasizing the differences between the more and less favored populations, reinforcing the importance that universal prevention interventions be carried out with others of a more selective tendency, destined to hidden nested populations, with more vulnerabilities, in order to their specific characteristics and needs Matos & Ramiro [3].

Whichever framework is used, either Caplan’s or Gordon’s, each of the three levels of prevention have specific strengths and weaknesses and it is suggested that any prevention program is delivered in an integrated way, that is, incorporating all the elements in the same broad program.

The proposal of Weisz, Sandler, Durlak & Anton [4] starts from this reasoning, placing promotion, prevention and treatment as successive aspects of the same intervention proposal, as complementary strategies, increasing the coherence and the possibility of well-being. This understanding is supported by the existence of a partial intersection between the different interventions (promotion, prevention and treatment), although they have different objectives. Thus, it is understood that health promotion would be the tip of the intervention continuum, whose objective is to increase the abilities to deal with adverse situations and to promote a positive development. According to the level of exposure to risk, universal, selective and/or indicated prevention are based on the maximization of protective factors, the promotion of competences, opportunities and motivation to comply, and reduction of risk factors.

Matos & Simões [5] gave a retrospective of the impact of the psychological interventions of the last decades, proposing to reflect the public policies and face the importance of the theoretical models and empirical evaluation that support the practice of preventive programs. The authors maintain that theory and theoretical concepts allow for a way to understand the relationships among variables, risks, potentialities, intervention and the result itself, as well as favor the understanding of the context, mediators and moderators of the process, the effects of program and possible changes needed. One way to exemplify the above reasoning in a historical construction is that, especially in the 20th century, the initial focus of deficit prevention influenced the northern programs, services and public policies, which in turn had limited impact considering the expected results. Another view, more current and considered more effective, contemplates both the vulnerabilities as well as the resources and potentialities of the person or community for the development of preventive actions, valuing the multivariate context and focusing on the positive aspects instead of targeting specific risk behaviors Matos & Ramiro [3]; Matos & Simões [5]. This reasoning, whose focus is on the potentialities of people and communities, valuing the positive, is the basis of the Health Assets Model Morgan, Davies & Ziglio [6], in which the mapping of resources or assets enhances the empowerment of communities, since the competencies found, from the individual to the collective level, can be used to prevent and promote health. This proposal allows the community to increase its sense of belonging and participation in this process McKnight [7].

According to Kriznik, Kinmonth, Ling and Kelly [8] a public policy of prevention should not be based exclusively on individual behaviors, in a linear and even simplistic logic, as this represents a partial view of a complex theme that is also affected by relational and contextual factors. Adopting the multifactorial conception of interconnected and dynamic aspects, with changes over time, favors the implementation of more effective preventive interventions. Thus, it is emphasized that programs should broaden the focus of their interventions, not only taking into account behavior (focus on people), but also focusing on the environment, including social and environmental factors that interact to establish risks and protectors, such as institutional relations, contextual, economic, environmental and cultural aspects.

One of the aspects that can be concluded from the discussion on preventive interventions is that the question to ask is not just about the effectiveness of the program but also about its entire process, taking into account the complexity that surrounds it. Thus, a diversity of variables should be reflected, including: a) access to the program, b) risk and protective factors, c) target population and its characteristics (including whether the intervention is universal, selective or indicated), d) context and its nuances (including environmental and social aspects), e) program professionals and facilitators, f) possibility of sustainability and continuity of the program, g) partnerships and integration with other community programs or networks Rohrbach [9].

In a way complementary to this reasoning, both the preventive and promotional health theories and models have indicated the importance of the active involvement of the participants Matos & Simões [6]; Matos [10]; Matos & Ramiro [3]. It is understood that the participation of the target population, from the phase of construction of the programs until its implementation and evaluation, favors the empowerment and appropriation of the process by the community itself, as well as the adaptations to the specific context and culture. It is this active participation that allows the developers and executors of the intervention program to adapt it to the context and needs of the community in question, increasing the possibilities of adjustments throughout the process and enhancing the achievement of proximal and distal prevention and promotion goals Matos [10].
Focusing on Contemporary Cognitive-Behavioral Models of Learning – the “third wave”

The understanding of learning also followed the evolution of modern and postmodern thinking, proceeding from a conception acquisition of knowledge in a passive way to a process of construction involving people active in the reflection, elaboration and transformation of knowledge.

Starting from this reasoning, one can speak of learning in three different moments, which also mark the development of cognitive-behavioral therapies, known as first, second and third waves Hayes [11]; Hayes, Strosahl & Wilson [12]; Cottraux [13].

In the first moment, one can understand the learning under the behavioral paradigm. The behavior modification is understood by the optics of the operant conditioning, that is to say, from its consequences, the probability of a behavior being emitted increases or decreases. Thus, learning is related to the individual’s response to environmental contingencies, a paradigm of the first wave behavioral therapies Matos & Simões [5].

In a second moment it was marked by the so-called cognitive revolution, whose mediational paradigm gained strength, favoring the so-called second wave therapies with a focus on cognitive restructuring, as presented by Aaron Beck [14] and Albert Ellis [15].

At that moment, learning goes through a process of interpretation and meaning of environmental events, which in turn modulate feelings and behaviors. It is possible to highlight the Social Learning Theory of Albert Bandura clearly presenting a mediational concept. Thus, vicarious learning occurred from the observation of a social interaction, for example, that in order to reproduce it, it is necessary to use various cognitive aspects, such as memory, attention, evaluation, self-regulation and decision-making Bandura [16,17]. The most recent paradigm, which emerged from the two previous moments, goes towards integrative and contextual models. Acceptance and Commitment Therapy (ACT) is one of the therapeutic proposals based on the “third wave”, a term that was fostered through a Steven Hayes publication on this theme in 2004, the proposal at this time is not to change unpleasant thoughts and / or feelings, not even to avoid them, but to recognize them, to promote a cognitive-affective self-regulation and to accept them, in order to be able to gain an increased well-being Hayes [11]; Hayes, Strosahl, & Wilson [12]; Cottraux [13]; Hayes [18], maintaining a focus on individual values and priorities.

Another proposal of the third wave, strengthened the idea of the interrelationships between individual, social, cultural and environmental systems, which in turn affect each other Cottraux [13].

Acceptance of reality allows the connection with individual values, the achievement of well-being and the change of maladaptive patterns Hayes [11]; Cottraux [13]; Harris [19], pursuing individual priorities in an open and flexible way.

The Third Wave: Integrated Models of Change and of the Development of the Person

Current models for prevention have focused on raising the quality of life at both the individual and community levels. For this, although based on common basic principles, there are differences in the emphasis given in each model, keeping the same line of reasoning of the integrative and contextual models that support the paradigms of prevention and learning, in which a diversity of factors (individual and environmental) impacts the healthy development of the individual, the importance of intervention programs with such scope Matos & Ramiro [3]; Matos & Simões [5]. Thus, two pathways for healthy development have been highlighted in the literature. In the first way, the path of promotion is considered the direct relationship between resource and healthy development. Here, it is understood that resources can prevent the risk from occurring, thus avoiding it. In the second way, the path of protection emphasizes resilience, taking into account risks and resources, that is, it is understood that in this way there is a balance in the relationship between risk and healthy development Kia-Keating et al. [20]; Matos & Simões [5].

These two ways have an overlap and are complementary, therefore, it is understood that integrative models that align concepts of risk, resilience and positive development tend to be more adequate than if seen separately Kia -Keating et al. [20]. These authors present a model combining all the aforementioned elements, which uses the path of protection and promotion for healthy development, and an ecological framework that includes individual, family, school, workplaces community and cultural factors. In addition, the proposed model encompasses eight relevant development domains, thus defining potential foci of intervention and public policy.

Another integration effort, which has been referred to in the literature from a systematic review of effective programs, using as criteria the breadth and coherence Michie, van Stralen & West [21], is the Behavior Change Wheel Model Change Wheel - COM-B) which aims to answer the question: "What individual internal and social / environmental conditions need to change to enable behavior change?" According to the authors, this model allows the design and selection of interventions and public policies, which take into account both the analysis of the nature of behavior and the mechanisms of behavior change, the interventions and public policies necessary to change these mechanisms. This idea corroborates with the perspective that the greater the consideration of interactions with place and context, the greater the understanding of relational and dynamic factors, as well as the causal and sustaining mechanisms of social inequalities and, consequently, the possibility of implementing more interventions effective Kriznik et al., [8].

The authors argue that three components are needed: capacity (physical and psychological capacities for behavior change, mainly knowledge and competence); b) motivation, (the intention to act, which includes emotional and impulsive processes, as well
as a reflexive process of decision making) and; c) opportunities, (at least, an absence of external factors that interfere negatively and, preferably, the existence of benign external factors). This model reinforces the role of context as a key factor in the design and implementation of successful interventions, since behavior can only be understood in relation to context, both essential in the possibility of effective interventions.

**Prevention, Psychotherapy and Population and Individual Wellbeing**

These reflections on the way we might develop continuity between individual interventions and population-based approaches provide an opportunity to consider the contribution that the various branches of psychology might contribute. As an example, in social psychology there has been recent interest in developing models that build on the importance of social connections in health, the impact of which is generally substantially underestimated Haslam et al. [22]. Another example comes from neuropsychology examining the impact of head injuries on health and the implications for prevention.

A final example, again not necessarily thought of as relating to health and wellbeing, is industrial organisational (IO) psychology. In the recent book in the application of IO psychology in various fields Olson-Buchanan, Bryan, & Thompson [23], there is a comprehensive review of its importance in health related areas. In particular, health and safety at work has had a substantial impact on the lives of employees in many countries, informed by this important field.

The very wide range of applications of psychology means that there is enormous potential for synergy between the different areas of study and practice. While the most well developed in their address of public health issues and prevention is health psychology—an example being Susan Michie’s work noted above - in most countries, the largest workforce is likely to be clinical psychologists whose main focus of work is individual interventions. Industrial organizational psychologists are mainly in private practice and consultancies to large organizations. The benefits of bringing these various groups together for a combined prevention effort are an important message for public policy.

An additional area that has become very significant and brings together some of these ideas is that of behavioral insight (https://www.bi.team/what-we-do/policy-areas/health-wellbeing/) that aims to use behavioral science – another term for psychology – to make better choices. These approaches have been used to many areas of healthcare and are now a key focus in groups like the European Commission and the World Bank.

**Final Thoughts**

In order to reduce health inequities and, in fact, to increase quality of life and well-being, it is necessary clarify the connection between downstream interventions and their companions upstream. Downstream activities are those that focus on individual and social skills, that is, that proposes behavior change, but do not change the context, while upstream activities are more macro, concern public policy and that can focus on environmental change, increasing community resources and transforming cultural norms Gehlert et al., [24]. In fact, both are relevant, necessary and must be integrated.

The development of the preventive and clinical models, both supported in the contemporary paradigm of learning, present important points of convergence.

Both approaches can be considered as part of the same continuum of interventions to promote well-being, as proposed by the Integrative Model, between promotion, prevention and intervention Weisz et al., [4].

In families, schools, workplaces and neighborhoods, a strategy towards well-being can be to develop an ability to cope with diversity and change, in a historical period characterized by enormous challenges and accelerated changes: educating for promoting curiosity, openness and flexibility Hayes [11,12]; Matos [25,26] appears as a promising direction.

In a perspective of universal prevention (for the whole population and leading to a “cultural change”), curiosity, openness and psychological flexibility are concepts to be valued and encouraged, in prevention as well as in psychotherapy (ACT) Matos [25,26]; Polk & Schoendorff [27].

Another important concept in universal prevention is the identification of our inner language (our thoughts). In our families, schools, workplaces and neighborhoods, we are often encouraged to speak, or to keep quiet, but there is little understanding about our inner voices, what we tell ourselves in order to guide us in our own lives and in our relationship with others. This increase in understanding how our thinking can influence our actions and our social behavior entails an increased capacity for peaceful conviviality, identification and problem identification, problem solving and problem and conflict management. In the family, in class, in the workplace and in the neighborhood, we can learn to identify, respect and value what is important for each one, and the enormous richness of inter-individual diversity, that is, learning to identify, to value and to respect each one’s priorities and evolve in the ability to start and keep small steps in the direction of what we value, with the richness that diversity adds Hayes [11,18]; Harris [19]; Matos [25,26].

In a changing world, where diversity become a huge asset promoting curiosity, openness and flexibility can act optimizing individual wellbeing in a downstream way, as well as they may influence public policies, environmental wellbeing and equity in a upstream way.

This is a relevant message for public policies that often disregard these aspects of the happiness and mental health of the citizens.
References

1. Caplan G (1964) The principles of preventive psychiatry. New York: basic books.
2. Gordon R (1987) An operational classification of disease prevention. In J A Steinberg & M. M. Silverman (Eds.) Preventing mental disorders (pp. 20-26). Rockville, MD: Department of Health and Human Services.
3. Matos MG, Ramiro L (2018) Challenges for Prevention and Promotion in the 21st Century. J Educ Soci Behav Sci 26: 1-7.
4. Weisz JR, Sandler IN, Durlak JA, Anton BS (2005) Promoting and protecting youth mental health through evidence-based prevention and treatment. Am Psychol 60: 628-648.
5. Matos MG, Simões C (2016) From positive youth development to youth’s engagement: the dream teens. Int J Emot Educ 8: 4-18.
6. Morgan A, Davies M, Ziglio E (2010) Health assets in a global context: theory, methods, action. New York: springer.
7. McKnight J (2010) Asset mapping in community. In: Morgan A, Davies M, Ziglio E (orgs) Health assets in a global context: theory, methods, action. New York: springer pp. 59-76.
8. Kriznik NM, Kinmonth AL, Ting T, Kelly MP (2018) Moving beyond individual choice in policies to reduce health inequalities: the integration of dynamic with individual explanations. J Public Health (Oxf) 40: 764-775.
9. Rohrbach LA (2014) Design of prevention interventions. In: Sloboda, S. & Petras, H. (orgs.) Defining prevention Science. New York: Springer pp. 275-292.
10. Matos MG (2015) Adolescents in safe navigation through unknown waters. Lisbon: Coisas de Ler.
11. Hayes S (2004) Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. Behav Ther 35: 639-665.
12. Hayes SC, Strosahl KD, Wilson KG (2012) Acceptance and commitment therapy: the process and practice of mindful change: NY: Guilford.
13. Cottraux J (2014) Therapie cognitive et émotions- La troisième vague, Paris: Masson.
14. Beck AT (1976) Cognitive therapy and emotional disorders, NY: International Universities Press.
15. Ellis A (1962) Reason and emotion in psychotherapy, NY: Stuart.
16. Bandura A (1977) Social learning therapy; NJ: Prentice-Hall.
17. Bandura A (2012) On the functional properties of perceived self-efficacy revisited. J Manag 38: 9-44.
18. Hayes SC (2005) Get out of your mind and into your life, Oakland: New Harbinger Publi CA.
19. Harris R (2009) ACT with love, Oakland CA, New Harbinger.
20. Kia-Keating M, Dowdy E, Morgan M, Noam G (2011) Protecting and promoting: an integrative conceptual model for healthy development of adolescents. J Adolesc Health 48: 220-228.
21. Michie S, van Stralen M, West R (2011) The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci 6: 42.
22. Haslam C, Jetten J, Cruwys T, Dingle G, Haslam A (2018) The new psychology of health: unlocking the social cure, routledge.
23. Olson-Buchanan J, Bryan LLK, Thompson LF (2014) Using industrial organizational psychology for the greater good : helping those who help others.
24. Gehlert S, Sohmer D, Sacks T, Mininger C, McClintock M, et al. (2008) Targeting health disparities: a model linking upstream determinants to downstream interventions. Health Aff (Millwood) 27: 339-349.
25. Matos MG (2019a) Is it really important: the third wave of CBT and people mental health (É mesmo Importante? a terceira vaga das TCC na promoção da saúde mental das pessoas); Lisbon: Silabo.
26. Matos MG (2019b) The art of living in the 21st century (A Arte de viver no século XXI), Lisbon: Silabo.
27. Polk K, Schoendorf M (2014) The ACT matrix: a new approach to building psychological flexibility across settings & populations; Oakland: New Harbinger Publ CA.