Position Paper

Health Psychology - A Moment of Reflection

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Abstract

Background: In every career, there are (or should be) moments of reflection. In this paper, an attempt is made to reflect on a personal history, in order to help the Health Psychology field grow.

Concrete experiences: Based on personal reflections and a series of unstructured discussions with professor emeritus Gerjo Kok, key experiences are identified based on input from both the Health Promotion field as well as the Applied Social Psychology field. His most prominent milestones are summarized to serve as potentially useful 'lessons learned' for the Health Psychology field.

Reflective observation & concept formation: Over the years, several lessons are learned from leading theories and a wide range of experts. Although these lessons are yet not always applied in practice, they include (but are not limited to): 1) how to systematically plan behaviour change interventions, 2) how to systematically apply theory and evidence, and, especially, 3) how to identify and involve the environment.

Active application: Health Psychology influences, and is influenced by many related fields. The current focus of Health Psychology on the individual level is excellent, but the contribution of theory, research and evidence at higher ecological levels could be improved. To help the Health Psychology field forward, the focus should not only be on the target population, but also on the influences on individual behaviour from the (social) environments: interpersonal, organization, community, and society. Moreover, more attention should be paid to the conditions under which evidence-based interventions work, especially by targeting the "agents" that are in charge of the identified change at the environmental levels.

Background

In every career, there are (or should be) moments of reflection. Some of those moments lead to personal growth, some highlight lessons learned, and some of them purposefully help to (re)structure our thoughts while entering a next phase. Also within Health Psychology, moments of reflection are not uncommon. Regularly expert meetings are held, leading up to position statements, redoubled foci, or research agenda's (see for example Hagger et al., 2016; Kwasnicka et al., 2021; Presseau et al., 2022). However, attempts to reflect on the Health Psychology field as a whole are challenging, limited, and not always accessible (if available).

In the early years of the field, Health Psychology is broadly defined as "*the educational, scientific, and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, the identification of etiologic and diagnostic correlates of health, illness, and related dysfunction, and the improvement of the health care system and health policy formation*" (Matarazzo, 1980, p. 815). Ten years later, Shelley Taylor (1990) managed to share some trends in Health Psychology as a field, arguing that the growing health care costs forced us (they used the words "nudged us"; p46) to focus on research

and (primary prevention) interventions, but also on the implementation into practice. That paper ended with the statement: "*(reflection) articles like this will gradually disappear from the literature*" (p47). "*Those of us who have regularly taken the temperature and pulse of the field and confidently offered diagnoses and prognoses will be out of business, for whatever trends could be culled from the myriad and diverse directions in the field will be dwarfed in significance by the divergence*".

Therefore, realizing that there are many perspectives and viewpoints on how Health Psychology has grown, this paper is an attempt to describe more than 45 years of personal experiences from two associated areas, Health Promotion and Applied Social Psychology, resulting in an integrated argument for broadening the scope of Health Psychology. We will roughly apply Kolb's model of reflection (Kolb, 1984): (1) Concrete experiences, (2) Reflective observation, (3) Concept formation, and (4) Active application. Steps 2 and 3 are combined in the presentation to clearly show the link between observation and concept formation.

Concrete Experiences

Based on several unstructured, not-recorded, and sometimes spontaneous interviews with Gerjo Kok (professor emeritus in both Health Promotion & Applied Social Psychology; interviewer Gill ten Hoor), real-life case examples are collected and summarized. Gerjo Kok is one of those scientists who is still "in business and was there when Health Psychology as a field started to pop up all over the world (and therefore one of the few left who are able to take temperature and pulse - quoting Taylor, 1990). Based on countless discussions, we attempted to summarize how the expertise of one field was helpful to the other (and vice versa), and how several fields influenced Health Psychology. Acknowledging the diverse directions and perspectives in the health psychology field, this will be a one-sided reflection, but of course others are invited to share their reflections as well.

Reflective Observations & Concept Formation

Over the past decades, the Health Psychology field has matured, and many milestones were reached, having significant contributions to society. In this section we describe how five of those milestones all lead to the following conclusions:

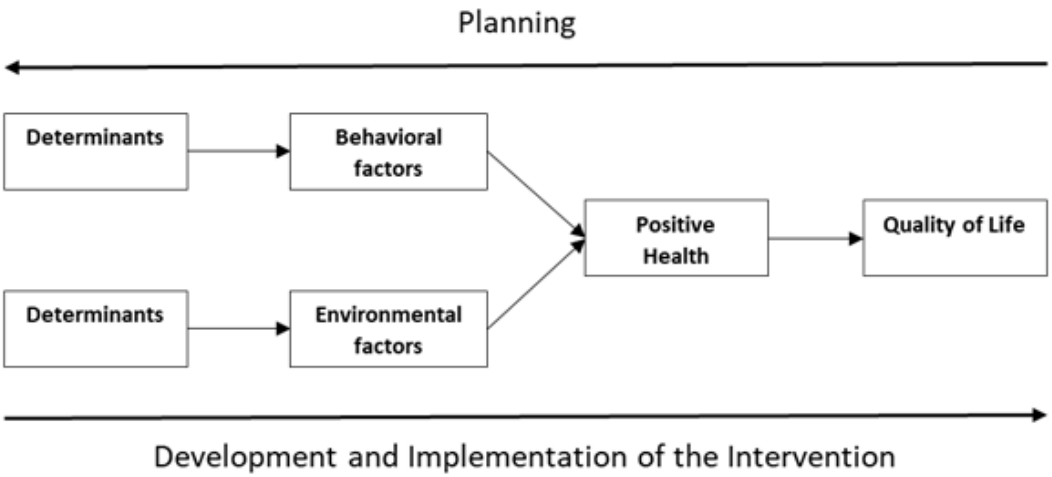
1)Health Psychology is important, but we do need to acknowledge expertise from other disciplines, specifically those in a specific field of health, such as health promotion, epidemiology, biology, accidents, sexuality, or other relevant expertise (see for example: ten Hoor et al., 2016; 2018).

2)The environment has a strong influence on an individual's health, next to the influences from the individual's behaviour. This should be targeted in our behaviour change interventions.

Milestone 1: Systematic Planning of Health Promotion

In the early 80's, the standard planning model in the USA was Green & Kreuter's Precede-Proceed Model (Green et al., 1980; Green & Kreuter, 2005; Green et al., 2022), which represented the scientific approach to planned Health Promotion at that time. Green & colleagues distinguish a planning phase and a development and implementation phase, and, from the start, they do not only focus on the individual, but on (the people in) the environment of this individual as well; see Figure 1 for a simplified representation in social-psychological terms (Kok, et al., 1996;

Figure 1: Precede/Proceed Planning Model (Bartholomew et al., 2016



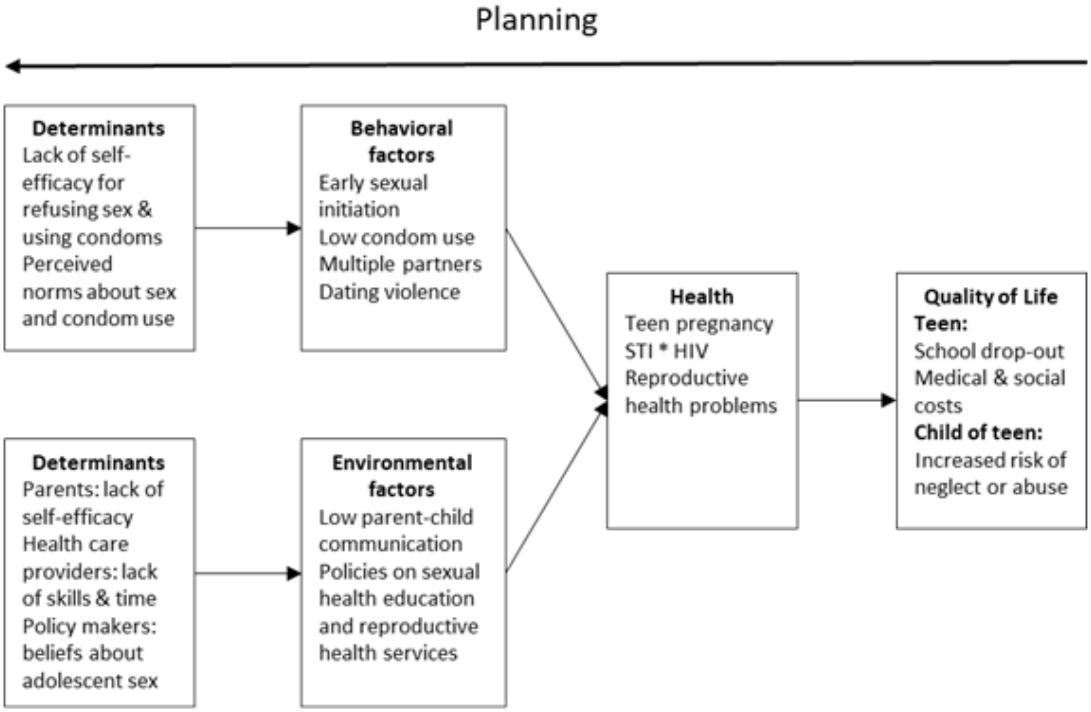
Bartholomew et al., 2016). In the *planning phase*, in Figure 1 from right to left, the planner answers questions such as: what is the problem; who has it; what quality of life effects occur; what behaviours may cause the problem; what environmental factors contribute to the problem; why (determinants) do people in the priority group do the behaviour and why (determinants) do people in charge of the environment create conditions that contribute to the problem directly or through the behaviour of the priority population?

In *the development and implementation phase*, in Figure 1 from left to right, the order is reversed: by targeting the determinants of the behavioural and the environmental outcomes, those will change in the intended direction, leading to improved health and quality of life.

This logical planning phase (including the focus on the environment) is of utmost importance (but often forgotten or not fully executed). An example that shows the elaborate planning phase is the "*It's Your Game … Keep It Real*" program: a sexual-health education program for middle school students (Peskin et al., 2014, see also Figure 2). For the needs assessment, the planners first reviewed the literature and surveillance data. They then held focus groups with youth and parents from the priority population, conducted interviews with school district personnel, attended school district meetings, and led discussions with the planning group. They described quality of life and health problems of the teens, the behaviour of the at-risk individuals, and the determinants of those sexual risk behaviours; then the environmental factors and agents, and finally the determinants of the environmental factors. In this case: determinants of the behaviour of the parents, e.g. monitoring seen as being too strict; determinants of the health care providers' counseling, such as lack of skills for communicating about sexual health; and determinants of the policy makers who are responsible for school-based sexual health education and minors' access to sexual and reproductive health services, who may be more guided by religious or moral beliefs than by evidence and recommendations of professional medical organizations. All elements that were necessary and identified in the planning phase, are taken into account in the development and implementation phase.

Lessons learned: Planning is essential, not only when it comes to individual factors but also when it comes to the broader environment. In health promotion, the environment is not represented in terms of perceptions of the target group, but as a real target that should become the focus of Health

Figure 2: Precede logic model "It's Your Game" (Bartholomew et al., 2016, p. 250; selected examples)



Promotion interventions directly through the relevant agents. Health psychologist should not only focus on the individual but also on parents, teachers, managers, and not leave those to remedial educationalists, educators or managers (that it's more pragmatic to only focus on the individual is not a good reason to ignore the environment). Health psychologists need to include higher ecological levels in their research as well as in their collaborations, such as the availability of health care for all people, or the implementation of laws protecting workers from health threatening substances.

As helpful planning tools, the Precede-Proceed model, has a clear focus on the "agents" who are responsible for the environment and who often become the target of interventions directed at the environment (instead of at the individual). For implementation (which is also a planned activity with its own environmental agent: the implementer) frameworks like Implementation Mapping (Fernandez et al., 2019) are helpful.

Milestone 2: Systematically Applying Theories & Evidence

Psychology is not only a basic behavioural science but also an applied discipline that is used to solve societal problems (Veen, 1985). The processes of brainstorming, literature review, theory selection & application, and data collection are the "*Core Processes*" which can be used in different phases/steps of intervention planning, from needs assessment to intervention design to program implementation and evaluation, and within different planning frameworks. By using these "*Core Processes*", planners are provided with expert, empirical and theoretical guidance, from problem definition to problem solution. Specific emphasis is put on finding theories that are potentially useful in providing answers to planning questions using a combination of approaches to access and select theories (i.e., the topic, concept, and general theories approaches). Furthermore, emphasis is put on the logic of answering (1)

planning questions by (2) first brainstorming, before (3) consulting the literature, then (4) applying theories, and finally (5) collecting additional data (Ruiter & Crutzen, 2021). Doing the tasks in this specific order is crucial. Some intervention developers have a tendency to not report the development process, or they jump too fast to doing their own research/planning their own intervention without careful consideration of earlier research and/or theoretical input. This is a waste of essential knowledge that is already available.

Ruiter & Crutzen (2020) describe in detail a student project in which the core processes were used; focusing on preventing the transmission of HIV and other Sexual Transmitted Infections (STI's), and pregnancy among urban adolescents. As example, Nalukwago et al. (2018) reported applying the core processes for an intervention directed at multiple concurrent sexual partnerships among adolescents in Uganda. They concluded that adolescent health programs in Uganda should incorporate comprehensive sexual health education on HIV and teenage pregnancy risk-reduction strategies. These programs should strengthen parental and community support through enhanced collaborative training on communication with and for adolescents. Forming strategic partnerships with various stakeholders (agents) for concerted efforts to address this problem among adolescents is thereby critical.

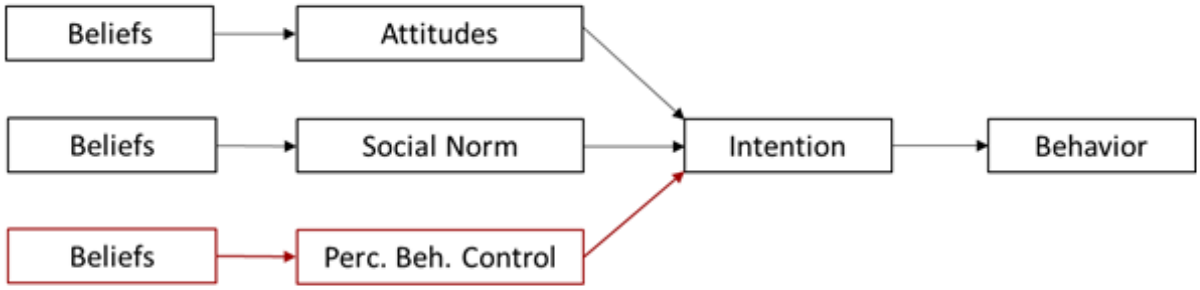
Lessons learned: Although it can be appealing to jump right into program development, the chances for success are higher with careful planning. The essential elements of planning are summarized in the *Core Processes*, which are a practical tool that helps the planner with the complex and time-consuming process of developing an intervention, appropriately based on theory and evidence. Applying theory and evidence is often a challenging task – in need of behavioural expertise - and these core processes will help the planner to make better choices in all steps of intervention development, at all levels, not just at the individual level but also at the environmental levels. The core processes of planning interventions are comparable between the individual level and environmental levels.

Milestone 3: Evolving Theoretical Perspectives - Reasoned Action/ Planned Behaviour versus Social Cognitive Theory

Before we can try to change behaviour, we need to understand the determinants, including personal and environmental influences. For that, health psychologists make use of a wide range of theories. For many researchers in Europe, the original standard theoretical approach for finding the determinants of behaviour was the Theory of Reasoned Action of Fishbein & Ajzen (1975): Beliefs, Attitude, Intentions and Behaviour. Later, Ajzen (1991) presented his revised Theory of Planned Behaviour (TPB, see Figure 3) with perceived behavioural control (PBC) as an addition, followed by an integration, the Reasoned Action Approach (Fishbein & Ajzen, 2010). Godin & Kok (1996) reviewed at that time the efficiency of the TPB to explain and predict health-related behaviours and concluded that the theory's efficiency is "quite good" for explaining intentions.

Back then, for other researchers, the standard theoretical approach for finding the determinants of behaviour was the Social Cognitive Theory of Bandura (SCT; Baranowski et al., 2002; Gottlieb et al., 1990; Parcel et al., 1995; see Figure 4). SCT addresses both the psychosocial dynamics influencing health behaviour and the methods for promoting behavioural change. Within SCT, human behaviour is explained in terms of a triadic, dynamic, and reciprocal model in which behaviour, personal factors and environmental influences all

Figure 3: The Theory of Planned Behaviour (Ajzen, 1991; 2020)



interact. Among the crucial personal factors are the individual's capabilities to anticipate the outcomes of behaviour, to learn by observing others, and to have confidence in performing a behaviour (self-efficacy). A clear dividing line between Ajzen-followers and Bandura-followers shaped the field of social psychology for a long time. However, Ajzen (2020) explicitly indicated that there is no fundamental difference between perceived behavioural control and self-efficacy, except that both concepts are usually measured differently, in effect suggesting an integration of both theories in practice.

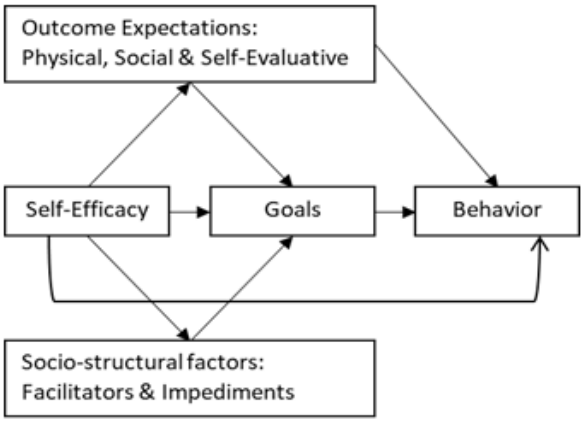
Lessons learned: To understand and change behaviour, it is important to make use of multiple theories. In the described Bandura vs. Fishbein & Ajzen case, both theories were relatively new to the other party. Over time, those discussions contributed to a better understanding of the other theory, and also to a wider perspective on multiple theories to understand and measure behavioural and environmental factors. Plus, the relevant determinants of behaviour and environmental agents. The specific TPB-procedures taught us to find and measure the beliefs behind the main determinants. The SCT provided a more challenging insight in the broad range of psychosocial dynamics provided by SCT, including the essential role of socio-structural factors and therefore the potential of the SCT to study the behavioural determinants of the target individuals as well as the target environments. The social environment was not just a given, but also a target for change next to, or even more important than, individual change.

Finally, our health psychology discipline is a practice discipline and no single theory is adequate for developing effective programs to promote health and neither is there a magic bullet that solves all problems. We need intrapersonal, interpersonal, organizational, community and policy theories: for understanding behaviour, developing interventions that change behaviour, and making sure those intervention are implemented successfully (McLeroy et al., 1993).

Milestone 4: How to identify and involve the environment - Ecological Systems Theories

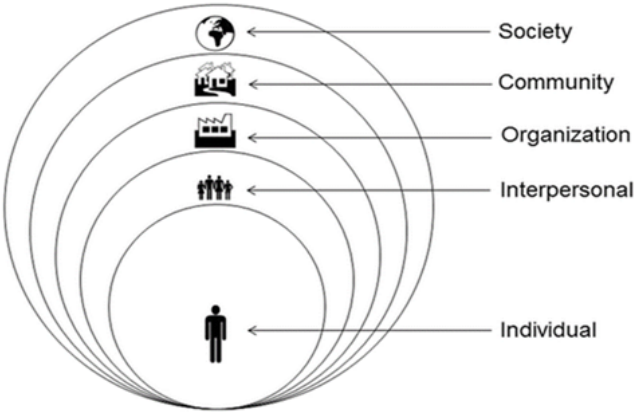
The last 40 years taught us that there should be a continuous and self-evident focus on ecological systems (Bronfenbrenner, 1979) in all planning, process and theory. In the social ecological model, health is a function of individuals and the environments in which they live, including family, social networks, organizations, communities and societies (Simons-Morton et al., 1988; see figure 5: Ruiter et al., 2020).

Figure 4: Social Cognitive Theory (Bandura, 2004)



One consequence of this perspective is that all Health Promotion programs' development, implementation and evaluation should be based on broad participation of community members (Wallerstein & Duran, 2006). Within that perspective, other theories became relevant that could be applied at those environmental levels (Bartholomew et al., 2016; Ruiter et al., 2020). At the interpersonal level, next to SCT, for example: social networks and social support theories; at the organizational level: organizational change, organizational development and stakeholder theories; at the community level: coalition, social capital, and community organization theories; and at the societal level: theories of public policy such as multiple streams theory and the advocacy coalition framework (De Leeuw, 1989).

Figure 5: The Socio-Ecological Approach to Health Promotion (Ruiter et al., 2020)



At the organizational level, for example, stakeholder theory may help health promoters to make change (Kok et al., 2015). Health Promotion applications of stakeholder theory require, foremost, a good understanding of the stakeholders' *salience* (their power, legitimacy, and urgency), *interest* (support and opposition) as well as the stakeholders' *position* within a network. For example, health promotors working in obesity prevention target policy change in the food industry, fast food companies, schools, and federal nutrition programs for women, infants, and children. To do this, they need to understand the importance of each stakeholder, to strengthen key relationships through communicative and compromise strategies, and to recognize the possibility of taking coercive actions itself or through allies with high salience for the focal organization.

One logical consequence of the socio-ecological model is the realization that the actual implementation of Health Promotion interventions is often located at the organizational, community or society level: e.g. schools, neighborhoods or national programs (Fernandez et al., 2019). This suggests that health psychologist already know how to involve the agents in the socio-ecological environment of the target group.

Lessons learned: The most important lesson here (again) is that the main focus of health behaviour change should not be limited to the individual level, but certainly also be on the social-ecological system in which the individual is embedded. Ultimately, that agent is – of course - also an individual. The important and subtle difference here is that behavioural science has many more ways to change agents than to change the target

population – which will be explained in the next paragraph. Changing the individual without changing the environment may, sometimes, be a form of victim-blaming: individuals are held accountable for what happened to them while in some cases the real causes lie in the environment, and are under control of the environmental agent(s).

Milestone 5: Exchange of theoretical perspectives - Intervention Methods, Practical Strategies and Parameters for Effectiveness

After we know what we want to change in terms of determinants of individual behaviours and those of the behaviours of agents in the environment, the next task is to find the appropriate theory- & evidence-based methods, or techniques, and translate those into practical strategies. A large diversity of researchers had experience with that process, but from different perspectives: Health Promotion versus Applied Social Psychology. However, it was not too difficult to find each other in a common language, probably because all those involved were trained as (social) psychologist.

A *theory-based method* is a general technique or process for influencing changes in determinants of behaviours and environmental conditions, in that last case the behaviours of agents. *Practical applications* are ways in which the theory-based methods are presented and delivered in an intervention appropriate to the population and the context. Methods and applications form a continuum from abstract theoretical method to practical applications to organized programs with specified scope, sequence, and support materials. Translating methods into applications demands a sufficient understanding of the theory behind the method, especially the theoretical parameters that are necessary for the effectiveness of the theoretical process (Bartholomew et al., 2016; Kok et al., 2016). For example, modeling can be effective, but only when the participant pays attention, remembers, has certain skills, and is reinforced (Kelder et al., 2015). *Goal setting* can be a very effective method to enhance performance but only when the goal is challenging as well as acceptable for the actor (Latham & Locke, 2007). Fear appeals are popular but are only effective when the at-risk population has high self-efficacy, and they may be counterproductive when self-efficacy is low (Kok et al., 2018). At the environmental level, *using lay-health workers* will only work when these natural helpers in the community have opinion leader status and are available to volunteer for training (Tolli, 2012). *Increasing stakeholder influence* can only succeed when the focal organization sees the external group as one of its stakeholders (Kok et al., 2015). As a final example (but many more behaviour change methods and its parameters can be found in Bartholomew et al., 2016 or Kok, et al., 2016), trying to use *media advocacy* requires those media to approve the news value of the message and to accept the message without changing its content (Dorfman & Krasnow, 2014).

Lessons learned: The relevant issue here is that behaviour change methods, or behaviour change techniques, are not universally effective but need to be applied with careful consideration of the determinant they target, and their *parameters for effectiveness*. Operationalizing a change method is a first step; making sure that this method is applied within the parameters involved, is an essential next step (Kok et al., 2016).

Active Application

For us, reflecting on Health Psychology as a field, the major enlightening insight concerned the pivotal role of the *socio-ecological environment*.

Psychologist, including health psychologists, tend to look at the environment in terms of how the target group perceives the environment, for example the perceived behaviour of others or the perceived expectations from others. In addition, (perceived) self-efficacy, and perceived behavioural control, are seen as relevant targets for interventions in terms of skills training, but often without serious considering, or trying to change, the environment itself (as example: in the extremely helpful book by Hagger et al. (2020) on behaviour change theories, almost all chapters on theories focus on changing individuals). Additionally, we do need to acknowledge expertise from other disciplines, in specific fields of health, such as health promotion, epidemiology, biology, accidents, sexuality, or other relevant expertise. Already in 1993, McLeroy and colleagues argued there is an important need "to expose more of our students to issues and theories from other disciplines, such as the social network, organizational and community development, and public policy literature".

Combining our two main conclusions (focus on environment, and acknowledgment of scientific insights from other disciplines), a systems perspective can certainly increase the effectiveness of planning when developing an intervention. Interventions at the various environmental levels will then focus on agents in positions to exercise control over the relevant environments. Those agents can be seen as targets for promoting real changes at all relevant ecological levels: interpersonal, organization, community, and society. In addition, interventions at one level can influence causal factors at other levels. Moreover, behaviour change interventions and health promotion program development, implementation and evaluation should be based on broad participation of the community. The current focus of Health Psychology on the individual level is excellent, but not enough to contribute optimally with theory, research and evidence to the health of the people.

References

Ajzen, I. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.

Ajzen, I. (2020). The Theory of Planned Behavior: Frequently Asked Questions. *Human Behavior and Emerging Technologies, 2*(4), 314-324.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior, 31*(2), 143-164.

Baranowski, T., Perry, C. L., & Parcel, G. S. (2002). How Individuals, Environments, and Health Behavior Interact. *Health Behavior and Health Education: Theory, Research, and Practice, 3,* 165-184.

Bartholomew, L. K., Markham, C. M., Ruiter, R. A. C., Fernàndez, M. E., Kok, G., & Parcel, G. S. (2016). *Planning Health Promotion Programs: An Intervention Mapping Approach* (4th Ed.). Hoboken, NJ: Wiley.

Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Harvard University Press.

De Leeuw, E. (1989). Concepts in Health Promotion: the Notion of Relativism. *Social Science & Medicine, 29*(11), 1281-1288.

Dorfman, L., & Krasnow, I. D. (2014). Public Health and Media Advocacy. *Annual Review of Public Health, 35*(1), 293-306.

Fernandez, M. E., Ten Hoor, G. A., Van Lieshout, S., Rodriguez, S. A., Beidas, R. S., Parcel, G., ... & Kok, G. (2019). Implementation Mapping: Using Intervention Mapping to Develop Implementation Strategies. *Frontiers in Public Health*, 7, 158.

Fishbein, M. and Ajzen, I. 1975. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

Fishbein, M. and Ajzen, I. 2010. *Predicting and changing behavior: The Reasoned Action Approach*. New York, NY: Psychology Press, Taylor & Francis Group.

Godin, G., & Kok, G. (1996). The Theory of Planned Behavior: A Review of its Applications to Health-Related Behaviors. *American Journal of Health Promotion, 11*(2), 87-98.

Gottlieb, N. H., Galavotti, C., McCuan, R. A., & McAlister, A. L. (1990). Specification of a Social-Cognitive Model Predicting Smoking Cessation in a Mexican—American Population: A Prospective Study. *Cognitive Therapy and Research, 14*(6), 529-542.

Green, LW, Kreuter, MW, Deeds, S, Partridge, K (1980). *Health Education Planning: A Diagnostic Approach*. Palo Alto, CA: Mayfield.

Green, LW, Kreuter, MW (2005). *Health Program Planning: An Educational and Ecological Approach*. New York: McGraw-Hill.

Green, L.W., Gielen, A.C., Ottoson, J.M., Peterson, D.V. & Kreuter, M. W. (Eds.) (2022). *Health program planning, implementation, and evaluation; creating behavioral, environmental, and policy change*. Johns Hopkins University Press, Baltimore.

Hagger, M. S., Cameron, L. D., Hamilton, K., Hankonen, N., & Lintunen, T. (Eds.). (2020). *The handbook of behavior change*. Cambridge University Press.

Hagger, M. S., Luszczynska, A., De Wit, J., Benyamini, Y., Burkert, S., Chamberland, P. E., ... & Gollwitzer, P. M. (2016). Implementation intention and planning interventions in Health Psychology: Recommendations from the Synergy Expert Group for research and practice. *Psychology & Health, 31*(7), 814-839.

ten Hoor, G. A., Plasqui, G., Ruiter, R. A., Kremers, S. P., Rutten, G. M., Schols, A. M., & Kok, G. (2016). A New Direction in Psychology and Health: Resistance Exercise Training for Obese Children and Adolescents. *Psychology & Health, 31*(1), 1-8.

ten Hoor, G. A., Rutten, G. M., Van Breukelen, G. J. P., Kok, G., Ruiter, R. A. C., Meijer, K., ... & Plasqui, G. (2018). Strength Exercises During Physical Education Classes in Secondary Schools Improve Body Composition: A Cluster Randomized Controlled Trial. *International Journal of Behavioral Nutrition and Physical Activity, 15*(1), 1-13.

Kelder, S. H., Hoelscher, D., & Perry, C. L. (2015). *How Individuals, Environments, and Health Behaviors Interact. In: Glanz et al, Health behavior: Theory, Research, and Practice,* 5th ed., pp. 159-182.

Kok, G., Gottlieb, N. H., Peters, G. J. Y., Mullen, P. D., Parcel, G. S., Ruiter, R. A., ... & Bartholomew, L. K. (2016). A Taxonomy of Behaviour Change Methods: An Intervention Mapping Approach. *Health Psychology Review, 10*(3), 297-312.

Kok, G., Gurabardhi, Z., Gottlieb, N. H., & Zijlstra, F. R. (2015). Influencing Organizations to Promote Health: Applying Stakeholder Theory. *Health Education & Behavior, 42*(1_suppl), 123S-132S.

Kok, G., Peters, G. J. Y., Kessels, L. T., Ten Hoor, G. A., & Ruiter, R. A. (2018). Ignoring Theory and Misinterpreting Evidence: The False Belief in Fear Appeals. *Health Psychology Review, 12*(2), 111-125.

Kok, G. Schaalma, H., De Vries, H., Parcel, G. & Paulussen, Th., 1996. Social psychology and health education. In: W. Stroebe & M. Hewstone (Eds.). *European review of social psychology,7* (241-282). London: Wiley.

Kolb, D.A. (1984). *Experiential learning: experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

Kwasnicka, D., Ten Hoor, G. A., van Dongen, A., Gruszczynska, E., Hagger, M. S., Hamilton, K., ... & Luszczynska, A. (2021). Promoting Scientific Integrity through Open Science in Health Psychology: Results of the Synergy Expert Meeting of the European Health Psychology Society. *Health Psychology Review, 15*(3), 333-349.

Latham, G. P., & Locke, E. A. (2007). New Developments in and Directions for Goal-Setting Research. *European Psychologist, 12*(4), 290.

Matarazzo, J. D. (1980). Behavioral Health and Behavioral Medicine: Frontiers for a New Health Psychology. *American Psychologist, 35*(9), 807.

McLeroy, K.R., Steckler, A.B., Simons-Morton, Goodman, R.M., Gottlieb, N. & Burdine, J.N. (1993). EDITORIAL: Social Science Theory in Health Education: Time for a New Model? *Health Education Research, 8*(3), 305-312

Nalukwago, J., Alaii, J., Borne, B. V. D., Bukuluki, P. M., & Crutzen, R. (2018). Application of Core Processes for Understanding Multiple Concurrent Sexual Partnerships among Adolescents in Uganda. *Frontiers in Public Health, 6,* 371.

Parcel, G. S., Edmundson, E., Perry, C. L., Feldman, H. A., O'Hara-Tompkins, N., Nader, P. R., ... & Stone, E. J. (1995). Measurement of Self-Efficacy for Diet-Related Behaviors among Elementary School Children. J*ournal of School Health, 65*(1), 23-27.

Peskin, M.F., Hernandez, B.F., Markham, C., ... & Tortolero, S.R. (2011). Sexual health education from the perspective of the school staff: Implications for adoption and implementation of effective programs in middle school. *Journal of Applied Research on Children, 2*(2), 9.

Presseau, J., Byrne-Davis, L. M., Hotham, S., Lorencatto, F., Potthoff, S., Atkinson, L., ... & Byrne, M. (2022) Enhancing the Translation of Health Behaviour Change Research into Practice: A Selective Conceptual Review of the Synergy between Implementation Science and Health Psychology, *Health Psychology Review, 16*(1), 22-49, DOI: 10.1080/17437199.2020.1866638

Ruiter, R. A., & Crutzen, R. (2020). Core Processes: How to Use Evidence, Theories, and Research in Planning Behavior Change Interventions. *Frontiers in Public Health, 8*, 247.

Ruiter, R.A.C., Crutzen, R., de Leeuw, E.D. & Kok, G. (2020). Changing Behavior Using Theories at the Interpersonal, Organizational, Community, and Societal Levels. In: Hagger, M.S., Cameron, L.D., Hamilton, K., Hankonen, N. & Lintunen, T. (Eds.), *The Handbook of Behavior Change*, pp. 251-266. Cambridge University Press.

Simons-Morton, D. G., Simons-Morton, B. G., Parcel, G. S., & Bunker, J. F. (1988). Influencing Personal and Environmental Conditions for Community Health: A Multilevel Intervention Model. Family and Community Health, 11(2), 25-35.

Taylor, S. E. (1990). Health Psychology: The Science and the Field. *American Psychologist, 45*(1), 40.

Tolli, M.V. (2012). Effectiveness of Peer Education Interventions for HIV Prevention, Adolescent Pregnancy Prevention and Sexual Health Promotion for Young People: A Systematic Review of European Studies. *Health Education Research, 27*(5). https://doi.org/10.1093/her/cys055

Veen, P. (1985). *Sociale Psychologie Toegepast (Social Psychology Applied*). Alphen aan de Rijn, NL: Samsom.

Wallerstein, N. B., & Duran, B. (2006). Using Community-Based Participatory Research to Address Health Disparities. *Health Promotion Practice, 7*(3), 312-323.

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