Psychology and Health

ISSN: 0887-0446 (Print) 1476-8321 (Online) Journal homepage: https://www.tandfonline.com/loi/gpsh20

Decoding health education interventions: The times are a-changin'

Herman Schaalma & Gerjo Kok

To cite this article: Herman Schaalma & Gerjo Kok (2009) Decoding health education interventions: The times are a-changin', Psychology and Health, 24:1, 5-9, DOI: 10.1080/08870440801995802

To link to this article: https://doi.org/10.1080/08870440801995802

Published online: 19 Feb 2009.

Psychology and Health
Vol. 24, No. 1, January 2009, 5–9

Routledge
Taylor & Francis Group

Decoding health education interventions: The times are a-changin'

Herman Schaalma* and Gerjo Kok

Work and Social Psychology, Maastricht University, 6200 MD Maastricht, The Netherlands

(*Received 29 January 2008; final version received 6 March 2008*)

The development of theory- and evidence-based health education interventions is a complex process in which interventionists in collaboration with priority groups and stakeholders make many decisions about objectives, change techniques, intervention materials and activities, delivery modes and implementation issues. In this development process, interventionists have to find a balance between employing change techniques that should be effective in an ideal world, and intervention activities and materials that match the reality of priority populations and intervention contexts. Intervention descriptions providing information about what behaviour change techniques have been employed, do not reflect the complexity of this decision-making process. They do not reveal why interventionists have decided to include or exclude particular behaviour change techniques. They do not reveal that interventions are based not only upon considerations of health psychologists and other scientists, but also on practical and political boundaries and opportunities that set the scene for the effectiveness of change techniques. Intervention descriptions should therefore reveal not only what is included in the interventions, but also why the intervention is as it is. Intervention Mapping provides the tools that enable the production of such descriptions.

Keywords: Intervention Mapping; health behaviour change; intervention content; change techniques

Introduction

One of the things most of us usually do when we have to develop a health education intervention for a particular health problem, priority population or intervention context, is to have a look at what others have done in similar situations. Frequently, however, our consideration of existing interventions will turn into disillusion. The scientific literature hardly ever includes intervention descriptions that provide interventionists with clear ideas about what interventions and specific behaviour change techniques might be useful to them (Bartholomew, Parcel, Kok, & Gottlieb, 2006). Although this was already noticed over 20 years ago (Mullen, Green, & Persinger, 1985), the scientific literature still provides precise descriptions of *how* we evaluate interventions, but hardly ever of *what* we evaluate (e.g. Dombrovski, Sniehotta, Avenell, & Coyne, 2007; Michie & Abraham, 2004). This is helpful neither for health education as a science nor for health education practice. Without a clear understanding of the working mechanisms of interventions '... the application

*Corresponding author. Email: herman.schaalma@psychology.unimaas.nl

ISSN 0887–0446 print/ISSN 1476–8321 online

DOI: 10.1080/08870440801995802
http://www.informaworld.com

of behaviour change technologies is likely to be slow, with ''wheels'' being re-invented rather than re-applied' (Michie & Abraham, 2004, p. 30).

In line with, and in addition to, recommendations for the reporting of interventions in behavioural medicine (Davidson et al., 2003), Michie and Abraham (2004) make a plea for intervention reports that provide descriptions of the behaviour change techniques employed in such detail that they allow exact replication, preferably using a standardised taxonomy of change techniques. They further suggest that such descriptions should be a precondition for publication of effectiveness trials, and, for instance, are made available through the internet. Although we embrace these valuable recommendations, and although we acknowledge that it would be a major step forward if they were implemented, we think that they do not go far enough.

Intervention development

The development of theory- and evidence-based health education interventions is a complex process in which interventionists in collaboration with priority groups and stakeholders make many decisions about objectives, change techniques, intervention materials and activities, delivery modes and implementation issues (Bartholomew et al., 2006). In this development process, interventionists have to find a balance between employing change techniques that should be effective in an ideal world, and intervention activities and materials that match the reality of priority populations and intervention contexts; they have to find a balance between what they prefer to do, and what is feasible to do.

Intervention descriptions, providing information about *what* behaviour change techniques have been employed, do not reflect the complexity of this decision-making process. They do not reveal *why* interventionists have decided to include or exclude particular behaviour change techniques. They do not reveal that interventions are based not only upon considerations of health psychologists and other scientists, but also on political and practical considerations that relate to efficiency, feasibility and ethics (cf. Leurs et al., 2007). Since these practical and political boundaries and opportunities set the scene for the effectiveness of behaviour change techniques, intervention descriptions should move beyond specific information about the intervention content, target populations, modes of delivery, intervention context and intervention implementers (Davidson et al., 2003), whether based upon a standardised taxonomy of behaviour change techniques or not (Abraham & Michie, 2008; Michie & Abraham, 2004). Interventionists in search for guidelines for their future interventions would need intervention descriptions that provide them with information about *when* and *how* theory was used in the decision-making about intervention design, and about *when* and *how* intervention design decisions were affected by, for instance, practical and political considerations regarding widespread and sustained intervention implementation (Bartholomew et al., 2006). Descriptions should therefore reveal not only *what* is included in the interventions, but also *why* the intervention is as it is. In our view, Intervention Mapping (Bartholomew et al., 2006) provides the tools that enable the production of such descriptions.

Intervention Mapping

Intervention Mapping (IM) was developed as a planning framework for the development of theory- and evidence-based health promotion programmes (Bartholomew, Parcel, &

Kok, 1998). IM provides guidelines and tools for the empirical and theoretical foundation of health promotion programmes, for the application of theory, for the translation of theory into actual intervention activities and materials, for the management of programme adoption and implementation, and for the collaboration between health educators, researchers, priority groups and stakeholders. IM enables health promoters to develop interventions that include theory-based intervention strategies and materials that may accomplish programme objectives, and that match priority populations and intervention contexts. IM guarantees that health promoters anticipate a widespread and sustained programme implementation, and collaborate with priority groups and stakeholders. As such, IM. . . . 'serves as a way to map the path of intervention development from recognizing a need or problem to testing solutions' (Bartholomew et al., 2006, p. xvii).

IM describes the intervention development process in six phases: (1) assessing needs and capacities, (2) specifying programme objectives, (3) selecting theory-based intervention methods and practical intervention strategies, (4) designing and organizing of the programme, (5) specifying adoption and implementation plans and (6) generating an evaluation plan. In daily language: (1) What is the problem? Causes? Risk groups? What are the resources for change? (2) What do we wish to change, and why? (3) How can we accomplish these changes? (4) . . . in such a way that it makes sense and will be implemented? (5) How can we facilitate sustained implementation? and (6) Did it work out the way we planned?

IM reflects the collaborative, iterative and cumulative decision-making processes underlying the development of theory- and evidence-based health promotion (Bartholomew et al., 2006). In collaboration with priority groups and stakeholders, interventionists move back and forth between intervention development phases, but, finally, the decision-making in each phase is based on the decisions that were made in previous phases, and neglect of a particular phase may lead to mistakes and inadequate decisions in subsequent phases.

To facilitate and document the complex decision-making process in each of these phases, IM provides guidelines and tools in the format of procedures, work sheets, matrices and tables. IM requires interventionists to specify intervention change objectives that target the psychosocial correlates of the preparatory behaviours (e.g. buying condoms, taking them along and negotiating their use) that are linked to a particular health promoting behaviour (e.g. condom use). IM also asks interventionists to document the identification of behaviour change techniques that may be useful in achieving these change objectives, including their deliberations regarding the conditions under which these techniques are potentially effective (Kok, Schaalma, Brug, Ruiter, & Van Empelen, 2004). For instance, interventionists should describe why they decided to use a norm-setting approach rather than a risk-communication approach to motivate homosexual men to engage in HIV-testing: i.e. concern that a HIV-positive test result may trigger defensive risk denial (Mikolajczak, Kok, & Hospers, 2008). IM also asks interventionists to describe how they operationalized potentially useful behaviour change techniques (e.g. peer modelling) into intervention activities and materials (e.g. videotaped modelling) in such a way that these materials and activities match priority groups (e.g. youth), intervention contexts (e.g. schools) and the conditions for effectiveness (i.e. the priority population can identify with the model, the model demonstrates feasible sub-skills and receives positive reinforcement, and the priority population perceives a coping model rather than a mastery model; see Kok et al., 2004). Finally, the use of IM in intervention design leads to intervention descriptions that specify and underpin the relations between

intervention change objectives, behaviour change techniques, and intervention activities and materials.

Such documentation provides a means to communicate the intervention content, its rationale, and the underlying decision-making processes to everyone involved in the development process (Bartholomew et al., 2006). In a similar vein, it provides a means to communicate the intervention design process to other interventionists and researchers in the fields of health psychology, health education and health promotion.

Conclusion

We embrace the suggestion by Abraham and Michie (2008, p. 11) that 'standardized intervention manuals should be prepared for all published intervention evaluations so that researchers and practitioners can discover how techniques constituting the content design of interventions were operationalized in practice'. In our view, however, intervention descriptions should not only document what behaviour change techniques have been included in interventions and how these techniques have been transferred to materials and activities. Intervention descriptions should also demystify the decision-making process underlying the selection of change techniques and the reasons why particular activities and materials were preferred to others. We think that IM is a relevant and useful, and perhaps sufficient step towards such descriptions.

To date full descriptions of the development process of theory- and evidence-based health education interventions are rarely included in the scientific literature (see for some exceptions, e.g. Kok, Harterink, Vriens, De Zwart, & Hospers, 2006; Mikolajczak et al., 2008; Tortolero, et al., 2005; Van Empelen, Kok, Schaalma, & Bartholomew, 2003; Van Kesteren, Kok, Hospers, Schippers, & De Wildt, 2006). We hope these times soon will be changing.

References

Abraham, C., & Michie, S. (in press). A taxonomy of behavior change techniques used in interventions. *Health Psychology*.

Bartholomew, L.K., Parcel, G.S., & Kok, G. (1998). Intervention Mapping: A process for developing theory and evidence-based health education programs. *Health Education & Behavior, 25*, 545–563.

Bartholomew, L.K., Parcel, G.S., Kok, G., & Gottlieb, N. (2006). *Planning health promotion programs: An Intervention Mapping approach*. San Francisco, C.A.: Jossey-Bass.

Davidson, K.W., Goldstein, M., Kaplan, R.M., Kaufmann, P.G., Knatterund, G.L., Orleans, C.T., et al. (2003). Evidence-based behavioural medicine: What is it and how do we achieve it? *Annals of Behavioral Medicine, 26*, 161–171.

Dombrovski, S.U., Sniehotta, F.F., Avenell, A., & Coyne, J.C. (2007). Towards a cumulative science of behaviour change: Do current conduct and reporting of behavioural interventions fall short of best practice? *Psychology & Health, 22*, 869–874.

Kok, G., Harterink, P., Vriens, P., De Zwart, O., & Hospers, H.J. (2006). The gay cruise: Developing a theory- and evidence-based internet HIV-prevention intervention. *Sexuality Research & Social Policy: Journal of NSRC, 3*, 52–67.

Kok, G., Schaalma, H., Ruiter, R.A.C., Brug, J., & Van Empelen, P. (2004). Intervention mapping: A protocol for applying health psychology theory to prevention programmes. *Journal of Health Psychology, 9*, 85–98.

Leurs, M.T.W., Schaalma, H.P., Jansen, M.W.J., Mur-Veeman, I.M., Van Breukelen, G., & De Vries, N.K. (2007). Comprehensive quality assessment of healthy school interventions. *Preventive Medicine, 45*, 366–372.

Michie, S., & Abraham, C. (2004). Interventions to change health behaviors: Evidence-based of evidence-inspired? *Psychology & Health, 19*, 29–49.

Mikolajczak, J., Kok, G., & Hospers, H.J. (in press). Queermasters: Developing a theory- and evidence- based internet HIV-prevention intervention to promote HIV-testing among men who have sex with men (MSM). *Journal of Applied Psychology*.

Mullen, P.D., Green, L.W., & Persinger, G.S. (1985). Clinical trials of patient education for chronic conditions: A comparative meta-analysis of intervention types. *Preventive Medicine, 14*, 753–781.

Tortolero, S.R., Markham, C.M., Parcel, G.S., Peters Jr., R.J., Escobar-Chaves, S.L., Basen-Engquist, K., et al. (2005). Using Intervention Mapping to adapt an effective HIV, sexually transmitted disease, and pregnancy prevention program for high-risk minority youth. *Health Promotion Practice, 6*, 286–298.

Van Empelen, P., Kok, G., Schaalma, H., & Bartholomew, K. (2003). An AIDS risk reduction program for Dutch drug users: An intervention mapping approach to planning. *Health Promotion Practice, 4*, 402–412.

Van Kesteren, N., Kok, G., Hospers, H.J., Schippers, J., & De Wildt, W. (2006). Systematic development of a self-help and motivational enhancement intervention to promote sexual health in HIV-positive men who have sex with men. *Aids Patient Care & STDs, 20*, 858–875.