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Health Psychologist**
Bulletin of the European Health Psychology Society

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Editorial

**Rik Crutzen***Editor***Emely de Vet***Editor*

Dear Readers,

Welcome to the conference issue of the European Health Psychologist (EHP), which most of you will be reading in Bordeaux, France during the 27th European Health Psychology Conference. This year's conference focuses on Well-being, Quality of Life & Caregiving; a topic in the heart of contemporary debates in medical, social, and professional fields. Besides the general interest of this theme, it is also very representative

of some major issues in health psychology (e.g., adjustment to chronic diseases).

We are particularly pleased with the contribution of three keynote speakers in this issue. First, Professor Mark Connor (University of Leeds, UK) provides insight into the role of (anticipated) affect in health behaviours. Second, Professor Crystal L. Park (University of Connecticut, US) discusses a framework for understanding meaning, spirituality, and stress-related growth in health psychology. Last, Professor Stan Maes (Leiden University, The Netherlands) pleads that the relevance of the concept of quality of (working) life can be

increased by a sound theoretical background and the development of valid and reliable measures. These contributions clearly reflect the diversity of work in health psychology and are highly relevant to the conference theme.

We would also like to mention that we intend to step down as editors by the end of 2013. Dr. Anthony Montgomery (University of Macedonia, Greece) will be one of the new editors. Additionally, Dr. Richard Cooke will leave the EHP—we would like to thank him for his two years as a co-editor. We will use this year's conference to talk to potential successors, so let us know if you are interested to join the editorial board. Also our editorial manager, Natalie Schüz, will step down. We thank her very much for all the efforts throughout the years; she really has taken the EHP to the next level. We welcome proposals and recommendations for new editors, editorial board members, and an editorial manager.

On behalf of the editorial board of the EHP, we wish you an inspiring conference and marvellous stay in Bordeaux!

Rik Crutzen and Emely de Vet, Editors

president's message

Welcome to the 27th conference of the European Health Psychology Society in Bordeaux!

Welcome to the conference issue of the *European Health Psychologist*. This issue marks the 8th anniversary of the *European Health Psychologist* and I would like to congratulate the Editors, Rik Crutzen and Emely de Vet and their team for their excellent work of establishing the *EHP* as an indispensable outlet for societal updates, scientific debate, and thought-provoking communications. The printed conference issues have become a valued feature of our annual scientific conferences, all issues of the quarterly *EHP* can also be downloaded from the website.

This year, the 27th annual scientific conference of the European Health Psychology Society returns to Bordeaux, where we already met in 1997. The conference will be hosted by the conference president Bruno Quintard and the local organising team, the Francophone Association of Health Psychologists and the Psychology Department of the University Bordeaux Segalen.

The programme of the conference reflects the rapid development of health psychological science in the EHPS. The 27th conference will be a showcase of cutting edge research, theoretically innovative studies, rigorous evaluations, and work that matters to policy and practice communities; addressing key issues in the psychology of health and health care, designed to have impact on both, the development of scientific knowledge and the well-being and care provision of the population. The pre-conference workshops reflect the direction of scientific development in health psychology covering theory and practice,

dissemination of science, systematic reviewing and implementation of interventions, thus covering the process of research from conception to implementation. I would like to thank the facilitators for sharing their expertise and the Synergy team for organising these excellent pre-conference workshops. Further pre-conference highlights are the workshops of CREATE (EHPS subdivision promoting education and collaboration for early career researchers working in the field of health psychology; www.ehps.net/create) and SYNERGY (Collaboration and innovation in theory and research in the EHPS; www.ehps.net/synergy). The CREATE workshop 'Intensive Longitudinal Methods in Health Psychology' addresses the timely need in health psychology to better understand changes and intra-individual variability over time and will be facilitated by Gertraud Stadler, Niall Bolger (Columbia University, NY) and Jean-Philippe Laurenceau (University of Delaware, DE). Gerjo Kok and Rob Rutter will facilitate the Synergy workshop 'Methods for Changing Environmental Conditions for Health: influencing organisations, key actors and stakeholders'. This workshop demonstrates how far health psychology has come: Our science has gone beyond the mostly individual based research we have seen in the past and has thoroughly progressed towards the translational research agenda. I am delighted about the excellent programme that the scientific committee chaired by Holger Schmid has brought together for this conference. Four outstanding keynote speakers; Mark Conner

**Falko Sniehotta***EHPS president*

(UK), Lutz Jäncke (Switzerland), Stan Maes (the Netherlands) and Crystal Park (USA) will set highlights in the areas of health behaviour, brain science and self-regulation, quality of life and care and religion. A look through the programme shows numerous excellent sessions, symposia, posters and individual papers leaving delegates with an excellent cross section of quality research in the EHPS. The conference theme is *Well-being, Quality of Life and Care-giving* which is reflected in a range of presentations of highly applied and interdisciplinary work. Applied health psychology is an interdisciplinary science.

The EHPS is expanding. This year we will again reach a new all time high in members with about 600 members from Europe and all over the world. This reflects the relevance of the EHPS as a home for researchers in health psychology, as well as our excellent reputation for science, training and networking. The critical mass of members allows us to increase our impact and to support a range of initiatives to support our members. In addition to the annual conference and workshop grants, we also fund research visit grants for early career researchers (tandem, visiting scholar) as well as a Networking Grant that was introduced recently to fund colleagues from different European countries to meet to develop research ideas.

For an annual full membership fee of only 75 Euros (ca. \$100) or a reduced fee of only 25 Euros members receive 12 issues of *Psychology & Health* (2011 Impact Factor: 2.126), two issues of *Health Psychology Review* (IF: 2.062), discounted conference fees and access to a considerable range of networking and training activities. The EHPS is international. The organisers of the 27th annual conference received almost 950 submissions from 64 countries! We welcome the delegates and speakers from all over the world. We are

delighted that you are contributing actively to the quality of our conference and we are delighted about the opportunity to further our knowledge in collaboration.

EHPS and its flagship journals become increasingly attractive to researchers worldwide and we are delighted to see that the membership is growing worldwide. For example, over the last two years, the country with the fastest growing number of members has been Australia. In 2014 we will start an initiative to increase membership and thereby the readership of our journals in the US and Canada and we invite countries with more than five members to elect a national delegate. We believe that our journals and conferences can only benefit from participation of leading researchers across the world.

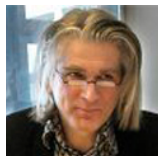
In addition to an excellent scientific programme, EHPS conferences are wonderful opportunities to meet old and new friends, network, discuss and exchange ideas. Many international research collaborations have started at EHPS conferences and people have made friends and meet inspiring acquaintances. A delightful social programme, the French summer, companionship and the cultural, culinary, geographic and architectural treasures of Bordeaux will hopefully contribute to the experience and help to inspire and entertain before and after the scientific sessions.

I would like to thank on behalf of the EC, the colleagues who have been working so hard to prepare this conference for us. Merci beaucoup to Bruno Quintard and the local organisers, the scientific committee, Paul Norman, the EHPS liaison officer, the organisers of CREATE and Synergy and of course, to you, the delegates and presenters. *Enjoy the conference!*

Falko Sniehotta, President of the EHPS

EHPS report

Introducing new members of the EC



Robbert Sanderman

President-Elect

I was trained as a clinical psychologist. After my PhD (1988) I went on in doing research and took up teaching to both students in psychology and medicine. From 1997 until June 2013 I have been scientific director of the Research Institute for Health Research (SHARE) of the University Medical Center Groningen (UMCG). Currently I am member of the Management Team of the Graduate School of Medical Sciences of the UMCG. As of 1999 I am a full professor of Health Psychology, University of Groningen and I hold a part-time professorship of Health Psychology at the University of Twente (March 2013 ongoing). My research is focused on psychological and social adaptive processes in patients with a chronic somatic disease (e.g. cancer, diabetes, heart failure and COPD). Apart from studying development over time of quality of life and psychological mechanisms in adjustment, I am involved in studies testing the efficacy of psychosocial interventions aimed at restoring quality of life among such groups of patients. In order to translate research findings into clinical guidelines I have been co-editor of several books, e.g. one book focusing on psychological treatment in chronic patients and one on psycho-oncology. Papers, which I co-authored, have been cited well over 5000 times, with an average of 28 cites per paper. My Hirsch-factor is 36. Currently I am—among others—member (and vice-chair) of the scientific board of the Dutch Kidney Foundation and member of the Dutch Society of Medical Psychologists. I was vice-chair of the board of the psychosocial scientific committee of the Dutch Cancer Society, and I am Past President of the Dutch Behavioral Medicine Federation and Past President of the Dutch Society of Psychosocial Oncology and I was Chair of the Board of the Dutch Research Institute Psychology and Health.

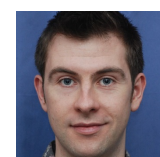
I'm a final-year PhD student at the Institute of Health & Society (Newcastle University). My PhD centres around the development of an intervention to promote sun-protection behaviours amongst holidaymakers. I also lead the 'mISkin trial' (<http://www.controlled-trials.com/ISRCTN63943558>), which aims to explore whether a Smartphone app ('mISkin') can be used to support holidaymakers to reduce their sun exposure. I'm particularly interested in theories of behaviour change, development of behaviour change interventions, and skin cancer prevention. I'm currently serving my second year as chair of the CREATE Executive Committee, having previously served two years as an ordinary member. Collaborative REsearch And Training in the EHPS (CREATE) is a subdivision of the European Health Psychology Society (EHPS) that aims to promote education and collaboration for early career researchers working in the field of health psychology. CREATE organises interactive workshops each year on specific topics of interest identified by the participants of the network. We are also responsible for the organisation of the 'Meet the Experts' sessions.

I am a Research Associate based in the Behavioural Science Group, University of Cambridge, and an Honorary Lecturer within the Division of Primary Care, University of Nottingham. My research interests currently focus on understanding how to change smoking behaviour, particularly using individually tailored mobile phone based self-help interventions. I have been involved in Synergy since 2008 and in 2010 I became the convenor. Synergy is a subdivision of the EHPS and coordinates the Synergy annual workshop prior to the main EHPS conference, the pre-conference workshops and Special Interest Groups (SIGs). I am very lucky to work with an excellent and committed group of individuals who make up the Synergy board (Panayiota Andreou, Gjalte-Jorn Peters, Lisa Warner, Anne Marie Plass and Maria Karekla). Our responsibilities for society based activities have increased in recent years to help us work towards the primary goal of Synergy: to advance the standard of work within the society and stimulate networking and collaborative research between researchers.



Angela Rodrigues

Chair, CREATE



Felix Naughton

Convenor, Synergy

keynote article

Health cognitions, affect and health behaviors

Mark Conner*University of Leeds*

Exploration of the psychological determinants of health behaviors has been an important focus of health psychology for a number of years. The thoughts and feelings that an individual has about a health behavior, or health cognitions, have received particular attention (Conner & Norman, 1996, 2005). In part this has been justified as a search for modifiable determinants of health behavior that can be targeted in interventions to improve health outcomes. Models such as the Theory of Planned Behavior, Health Belief Model, and Protection Motivation Theory have been widely used in this way (Conner & Norman, 2005). These models suggest that the thoughts and feelings I have now about a behavior will predict whether I perform that behavior in the future (partly because they inform my current decision or intention to perform that behavior and partly because that decision plus those thoughts and feelings impact on performance of the behavior when the opportunity to act presents itself). For example, the TPB suggests behavior is determined by intentions which are in turn determined by attitudes, subjective norms, and perceived behavioral control. Intentions here tap the plans or decision to act. Attitudes tap the overall evaluation of the behavior, while subjective norms tap perceptions of the reactions and the behavior of important others. Perceived behavioral control measures the perceived degree of control or confidence the individual has over performing the behavior. Prospective tests of the TPB have shown it to adequately predict a wide range of health behaviors (McEachan et al., 2011).

However, models like the TPB are firmly grounded in the cognitive tradition and focus on

cognitive influences at the expense of affective influences. Research has long highlighted their failure to adequately account for the role of affect (e.g., Manstead & Parker, 1995; van der Pligt et al., 1998). Yet, despite there being a long established distinction between, for example, cognitive and affective attitudes (e.g., Abelson, Kinder, Peters, & Fiske, 1982; Trafimow & Sheeran, 1998), it is only recently that there have been moves to reflect such distinctions in the structure of the TRA/TPB. For example, Ajzen and Fishbein (2005) recently noted that when measuring attitudes within the TRA/TPB researchers should tap both cognitive and affective components (see also Conner & Sparks, 2005).

A distinct body of research has conceptualized the role of affect in a different way. The measures used in such research are usually labelled anticipated affect to distinguish them from the affective attitudes described above. The two types of affective evaluations can be distinguished in three important ways. First, work on anticipated affect tends to focus on the affect that is expected to follow after performance or non-performance of a behavior rather than that expected to occur while the behavior is being performed. Second, anticipated affect measures tend to focus on what Giner-Sorolla (2001) describes as self-conscious emotions (e.g. regret, guilt), whereas affective attitudes tend to focus on hedonic emotions (e.g., enjoyment, excitement). Third, research on anticipated affect has tended to examine the negative affect (particularly associated with non-performance of the behaviour) while affective attitudes tend to focus on positive affect.

The present paper examines the role of affective influences on health behaviors in the context of models such as the Theory of Planned Behavior that include other established determinants of behavior. In turn the roles of affective attitudes, anticipated affect, and the joint effects of affective attitude and anticipated affect are examined. In each case both correlational and experimental data is presented. Within the correlational and experimental data exemplar primary studies (mainly conducted at Leeds) are presented along with meta-analytic summaries of the general literature. In addition, where the literature permits, the focus is on prospective studies and those employing objective measures of health behavior.

Affective attitudes

The relative importance of affective and cognitive attitudes in predicting the performance of health behavior is nicely illustrated in a study by Lawton et al. (2009). In this study a sample of members of the general public completed questionnaires tapping components of the TPB in relation to a range of different health behaviors and two months later self-reported their intentions to perform these behaviors and actual performance of the behaviors over the past two months. Importantly, respondents completed single item semantic differential measures of both affective and cognitive attitudes. Affective attitudes were tapped by how 'not enjoyable-enjoyable' the behavior might be and cognitive attitudes were tapped by how 'harmful-beneficial' the behavior might be expected to be. Comparisons of the simple correlations showed that compared to cognitive attitudes, affective attitudes were stronger predictors of intentions (10 out of 14 behaviors) and behavior (13 out of 14 behaviors). Importantly, when both types of attitude were simultaneously entered the beta weight for affective attitude was significantly

stronger than the beta weight for cognitive attitudes when predicting intentions (7 out of 14 behaviors) and behavior (9 out of 14 behaviors). This pattern was replicated by Lawton et al. (2007) but using multiple-item measures of affective and cognitive attitude (based on sets of beliefs) and objective measures of behavior for the behaviors of exceeding the posted speed limit in an adult sample of drivers and smoking initiation in an adolescent sample.

Several meta-analyses of correlational studies have confirmed the importance of affective attitudes in predicting intentions and behavior. For example, reviews of studies of physical activity have shown affective attitudes to have medium sized effects on behavior in both adult ($r = .39$, $k = 83$; Rhodes et al., 2010) and adolescent ($r = .26$, $k = 56$; Nasuti & Rhodes, 2013) samples. These are comparable to broader reviews of the TPB and physical activity that used mixed measures of attitudes (McEachan et al., 2011; attitude-behavior: $r = .30$, $k = 101$). A more recent review (Conner et al., in preparation) reported the more relevant comparison of studies that included both cognitive and affective attitude measures across a range of health behaviors. Again affective attitudes were found to be more strongly related to intentions (affective attitudes: $r = .45$, $k = 13$; cognitive attitudes: $r = .41$, $k = 13$) and behavior (affective attitudes: $r = .29$, $k = 13$; cognitive attitudes: $r = .25$, $k = 13$) although the differences were modest.

In general the correlational data to date appears to be strongly supportive of the importance of affective attitudes in determining both intentions and action for various health behaviors. The data would appear to suggest that affective attitudes are generally at least as strong as cognitive attitudes and in some cases considerably stronger correlates of intentions and behavior. The findings (Lawton et al., 2009)

also support a direct impact of affective attitudes on behavior even when controlling for intentions suggesting that affective attitudes may influence behavior directly and indirectly through intentions. However, to be considered useful targets for interventions designed to change health behaviors we need experimental studies that show affective attitudes can be readily changed and that such changes impact on behavior.

Fortunately there have been a number of experimental studies showing the value of targeting affective attitudes. For example, Sirriyeh et al. (2010) showed that receiving a daily affective text message (i.e., physical activity is enjoyable) over a two week period compared to a cognitive (i.e., physical activity is beneficial) or a combined message was sufficient to significantly increase self-reported physical activity. Conner et al. (2011) also looked at physical activity in two studies testing a written message presented as a leaflet targeting affective outcomes with a more traditional message targeting cognitive outcomes and a no message control. In both studies, self-reported physical activity was highest in the affective message condition at follow-up (3 weeks post-baseline) and this difference remained significant after controlling for baseline physical activity. Importantly, changes in affective attitudes were shown to partially mediate the changes in physical activity supporting a causal role of affective attitude change. The second study also showed the affective intervention to be more effective for particular groups of individuals, i.e., those high in need for affect. It would be useful to confirm these effects with objectively assessed physical activity.

Meta-analyses of experimental studies would also appear to support the idea that changing affective attitudes can be a useful way to change health behavior, although the reported

effect sizes tend to be small. In relation to physical activity reviews by Rhodes and colleagues (Rhodes et al., 2010; Nasuti & Rhodes, 2013) showed interventions targeting affective attitudes were associated with small to medium sized effects on behavior ($d = .35$, $k = 25$; 95% CI [.23, .48]). Other soon to be published reviews across a broader range of health behaviors suggest similar sized effects. For example, Maki et al. (2013) recently reported that studies changing overall attitudes about health behaviors were associated with small to medium effects on intentions ($d = .37$, $k = 47$) and behavior ($d = .20$, $k = 55$) with other reviews from the same group across larger samples of behaviors suggesting similar sized effects for studies changing affective attitudes.

Anticipated affect

Anticipated affect (or self-conscious affect) has also received attention as a determinant of intentions and action in relation to health behaviors. A particular focus of attention has been anticipated regret (although anticipated guilt has also received attention). One example of a correlational study in this area is that by Conner et al. (2006). This study looked at the role of anticipated regret (e.g., I would feel depressed if I smoked this term) in the context of the TPB on smoking intentions and objectively assessed smoking in a sample of adolescents. Anticipated regret showed a strong correlation with intentions ($r = .55$) and a small to medium correlation with behavior ($r = .23$). In regressions to predict intentions, anticipated regret remained significant when controlling for other TPB variables (attitudes, norms, perceived behavioral control). However, in regressions to predict behavior, anticipated regret did not remain significant when controlling for other TPB variables (intentions, attitudes, norms, perceived behavioral control). Meta-analyses of similar studies that measured regret and TPB variables (Sandberg & Conner, 2008) revealed

similar findings: a strong effect of anticipated regret on intentions ($r = .47$, $k = 25$; 95% CI [.19, .74]); a small to medium effect on behavior ($r = .28$, $k = 8$; 95% CI [.06, .50]). Regressions indicated anticipated regret was a significant predictor of both intentions and behavior when controlling for TPB variables, however only the impact on intentions remained significant when also controlling for past behavior. Overall the correlation findings for anticipated regret suggest that it may have a small to medium effect on behavior and that this effect may be partially mediated by intentions. However, to be considered a useful target for interventions to change health behaviors we need experimental studies to show that anticipated affect can be readily changed and that such changes impact on behavior.

Experimental studies targeting anticipated affect have been less commonly reported. In part this may be attributable to the difficulty of changing how much regret or guilt an individual anticipates experiencing. One way round this problem is to manipulate how much the individual's attention is drawn to potential anticipated affect. For example, we can compare groups who receive and complete versus are not exposed to anticipated affect questions. A number of studies have shown this 'question-behavior effect' for anticipated regret for behaviors such as condom use (Richard et al., 1996) and blood donation (Godin et al., 2008). Sandberg and Conner (2009) specifically looked at the effect of including such anticipated regret questions in relation to a sample of women invited for cervical screening. Women were randomly allocated to simply receive a normal invitation for screening, to receive a normal invitation plus complete a TPB questionnaire about screening, or to receive a normal invitation plus complete a TPB questionnaire about screening that included anticipated regret questions. Intention to treat analyses indicated

that screening attendance as measured by medical records showed higher attendance in the two TPB conditions (26%) compared to the no questionnaire condition (21%). Among those who completed and returned the questionnaire (and were therefore definitely exposed to the regret questions) attendance was considerably higher in the TPB plus regret condition (65%) compared to the TPB only condition (44%). Further analyses showed this was mainly due to changes in attendance among those with high intentions to attend for screening. A similar set of findings were reported for objectively assessed exercise (sports centre use) by Sandberg and Conner (2011). Importantly, this study showed that this effect of measuring regret on behavior was probably mediated by intentions. Only when the anticipated regret questions preceded the intention question was a significant effect on behavior observed. Meta analytic reviews of the limited number of experimental studies available suggest a small to medium sized effect of anticipated affect on health behavior (Conner et al., in preparation: $d = .29$, $k = 6$; 95% CI [.12 to .46]).

Affective attitudes plus anticipatory affect

The research presented above supports a small but significant role for both affective attitudes and anticipated affect on intentions and action for health behaviors. However, it leaves open the question of their simultaneous effects. Perhaps both tap the same affective influence on intentions and behavior or perhaps the two represent independent influences on intentions and behavior. Only a limited number of studies have addressed this question.

Among the correlational studies available to assess this issue Conner et al. (2013) looked at the role of cognitive and affective attitudes alongside anticipated affect in predicting intentions and action for blood donation in a large sample of blood donors. Confirmatory

factor analysis showed that measures of affective attitude, cognitive attitude, anticipated negative affective reactions and anticipated positive affective reactions could be distinguished. This supports the idea that in measurement terms we can distinguish between affective attitudes and anticipated affect. Predictive validity was examined by regression. Regressions indicated that it was cognitive attitude and both types of anticipated affective reactions that were predictive of intentions (along with perceived behavioral control from the TPB); while it was just anticipated negative affective reactions that were predictive of donation behavior (along with intentions and perceived behavioral control from the TPB). However, a weakness of this study was that the focal behavior, blood donation, may not be particularly affectively driven compared to other health behaviors such as physical activity. A fuller test might compare the effects of affective attitudes and anticipated affect across a range of health behaviors.

Such a 'fairer test' was what was attempted by Conner et al. (in preparation). This study used data from a sample of the general public across a range of health behaviors and measured both affective attitudes and anticipated affect along with other components of the TPB. Rather than reporting effects for each individual behavior this study used multi-level modelling to compare the effects across all behaviors simultaneously while controlling for the repeated measures aspect of the data. Regression analyses showed both affective attitude and anticipated affect (an anticipated regret measure) to be simultaneous significant predictors of both intentions and behavior when controlling for the effects of other TPB variables. Anticipated affect was a slightly stronger predictor of intentions, while affective attitudes were slightly stronger predictors of behavior.

Meta analytic reviews of the limited number of studies (Conner et al., in preparation; $k = 15$) that have measured both affective attitudes and anticipated affect reveal a somewhat similar pattern. There is only a small to medium sized relationship between affective attitudes and anticipated affect ($r = .38$, $k = 15$), although compared to anticipated regret affective attitudes tend to be more strongly correlated with both intentions ($r = .45$ vs. $.44$, $k = 15$) and behavior ($r = .29$ vs. $.28$, $k = 15$).

When we turn to experimental studies the available empirical evidence is even more limited and precludes any useful meta-analytic review. Indeed, only Wardle et al. (2003) appear to have designed an intervention to change both affective attitudes and anticipated affect. This study focused on colorectal screening using flexible sigmoidoscopy and compared a standard leaflet with one that targeted barriers and positive expectations in a large sample of adults (and designed to change both affective attitudes and anticipated regret). The study produced small to medium sized changes in both affective attitude ($d = .38$) and anticipated affect ($d = .36$) but only small effects on intentions ($d = .18$) and very small effects on behavior ($d = .07$). These values are smaller than those we noted earlier when reporting reviews of experimental studies changing just affective attitudes ($d = .31$ to $.37$ for intentions; $d = .20$ to $.35$ for behavior) or just anticipated affect ($d = .27$ for intentions; $d = .29$ to $.30$ for behavior). Clearly further experimental studies are required before we can draw any definitive conclusions about the value of targeting both affective attitudes and anticipated affect as a means to produce health behavior change.

Conclusions

The existing literature would suggest that when trying to change intentions and behavior there is value in focusing on affective influences

on health behavior probably in conjunction with other more widely studied influences (e.g., perceived behavioral control/self-efficacy, cognitive attitudes, norms). Affective influences probably have both direct effects on behavior, effects mediated by intentions, and also effects on the intention-behavior relationship (e.g., Keer et al., 2013). There is good evidence from both correlational and experimental studies to support a focus on either affective attitudes or anticipated affect, although the effect sizes on behavior change may only be in the small to medium range. The impact on long-term behavior change is a further focus that could benefit research examining different types of affective influence. The overlap between affective attitudes and anticipated affect would be another useful area on which to focus. Current evidence would suggest the two are only modestly correlated. In addition, the evidence concerning the value of jointly targeting affective attitude and anticipated affect in order to change health behavior is weak. Further experimental studies in this area would be particularly valuable. We need to know more about whether one construct can be changed without changing the other and the impact of changing one or both on observed behavior change. A final useful area for research is potential moderators. A range of moderators might be usefully explored including differences between behavior (e.g., risk behaviors versus protection behaviors) and individual factors (e.g., need for affect, need for cognition). ■

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keynote article

The Meaning Making Model: A framework for understanding meaning, spirituality, and stress-related growth in health psychology

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Research on the topics of meaning, spirituality, and stress-related growth is proliferating, promising to illuminate these essential but relatively ignored aspects of human health and well-being. However, the sheer amount of information coming from disparate areas requires organization and integration. I propose here that the Meaning Making Model (Park, 2010a, 2010b) is a useful theoretical framework for understanding these phenomena and their interrelations within health psychology. In this article, I use this model to frame a brief overview of current theory and research on meaning, spirituality, and growth within health psychology.

The Meaning Making Model

The Meaning Making Model identifies two levels of meaning, global and situational (Park & Folkman, 1997). Global meaning refers to individuals' general orienting systems and view of many situations, while situational meaning refers to meaning regarding a specific instance. Situational meaning comprises initial appraisals of the situation, the revision of global and appraised meanings, and the outcomes of these processes. Components of the Meaning Making Model are illustrated in Figure 1. The Meaning Making Model is discrepancy-based, that is, it proposes that people's perception of discrepancies between their appraised meaning of a particular situation and their global meaning (i.e., what they believe and desire) (Park, 2010a) creates distress, which in turn gives rise to efforts to reduce the discrepancy and resultant distress.

Discrepancies can be reduced in many ways, including problem-focused coping and emotion-focused coping strategies (Aldwin, 2007). However, in low control situations not amenable to direct repair or problem-solving, such as trauma, loss, and serious illness, meaning-making is often the most adaptive (Park, Folkman, & Bostrom, 2001). Meaning making involves approach-oriented *intrapsychic* efforts to reduce discrepancies between appraised and global meaning. Meaning-making involves changing either the very meaning of the stressor (appraised meaning) in a process of assimilation or changing one's global beliefs and goals to improve the fit between the appraised meaning of the stressor and global meaning, akin to accommodation (Park, 2010b). Meaning making typically involves searching for a more favorable understanding of the situation and its implications. Meaning making may also entail reconsidering global beliefs and revising goals (Wrosch, 2010) and questioning or revising one's sense of meaning in life (Park, 2010a). Meaning making comprises both effortful coping to change one's appraised or global meaning and more unconscious processes (e.g., intrusive thoughts; Greenberg, 1995; Lepore, 2001).

This rebuilding process may lead to better adjustment, particularly if adequate meaning is found or created, although protracted and unproductive meaning making efforts may devolve into maladaptive rumination (Segerstrom, Stanton, Alden, & Shortridge, 2003). That is, meaning making is helpful to the

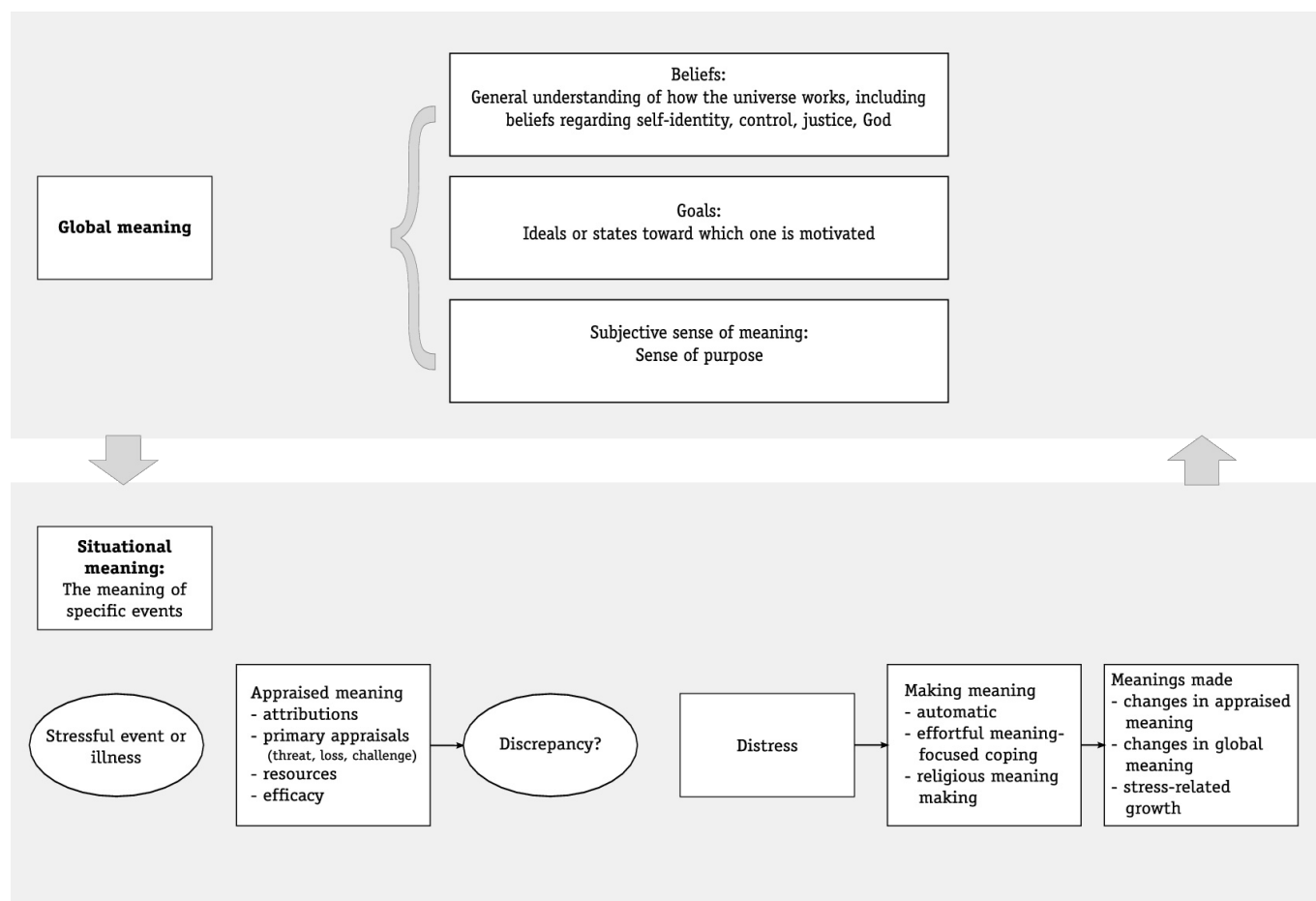


Figure 1: The Meaning Making Model

extent that it produces a satisfactory product, or *meaning made*. Meanings made can include changes in the way one appraises a situation as well as changes in global meaning, such as revised identity, growth, or views of the world (Park, 2010a).

Meaning in the context of health psychology

Global meaning influences individuals' general levels of health and well-being in myriad ways. Further, global meaning plays an essential role in how individuals deal with situations of crisis or serious illness, influencing their adjustment and, some research suggests, even their survival. These two types of influence of global meaning within health psychology are described below, and exemplified with a focus on

the influence of spirituality, a common source of global meaning.

Global meaning and general health

Many global beliefs are related to health and well-being. For example, copious research has linked a sense of control or mastery with physical well-being, including mortality and morbidity (e.g., Lachman & Agrigoroaei, 2010; Matthews et al., 2006). Similarly, goal processes are related to physical health in many ways (Mann, de Ridder, & Fujita, 2013). The third element of global meaning, a general sense of meaning in life, has been associated with better health in many studies as well (e.g., Matthews et al., 2006; Holahan et al., 2008).

Spirituality provides a useful illustration of the many ways in which global meaning is theorized to influence general health. Much of the spirituality/health research has been conducted in the United States, where people generally report fairly high levels of spirituality (e.g., U.S. Religious Landscape Survey, 2008). People in other countries report lower levels of spirituality than those in the US, but these reports are still fairly high (e.g., Hank & Schaan, 2008; WHOQOL SRPB Group, 2006; Williams & Sternthal, 2007). Worldwide, about 85% of people report having some form of religious belief, with only 15% describing themselves as atheist, agnostic, or nonreligious (Zuckerman, 2005). While not all individuals are spiritual, spirituality appears to be central in the meaning systems of many individuals (Park, in press).

Spirituality can inform all aspects of global meaning, informing beliefs (e.g., the nature of God and humanity, control, destiny, karma) and providing ultimate motivation and primary goals for living and guidelines for achieving those goals, along with a deep sense of purpose and

matter (Park, in press). Spirituality has been associated with many aspects of general health, including mortality and morbidity, cardiovascular and immune system functioning, pain, and health behaviors, including screening and adherence (see Koenig, King, & Carson, 2012, for a review). These effects are thought to be exerted through many different pathways (Figure 2, upper panel). (For reviews, see Aldwin, Park, Jeong, & Nath, in press; Masters & Hooker, in press).

Meaning in the context of illness

Pervasive as the effects of global meaning are on general aspects of health, its effects may be even more potent in the context of illness. Being diagnosed with serious illness can violate important global beliefs, including the fairness, benevolence and predictability of the world and one's sense of invulnerability and personal control (Jim & Jacobsen, 2008; Holland & Reznik, 2005). Further, serious illness almost invariably violates individuals' goals for their current lives and their plans for the future (Carver, 2005; Maes & Karoly, 2005). People

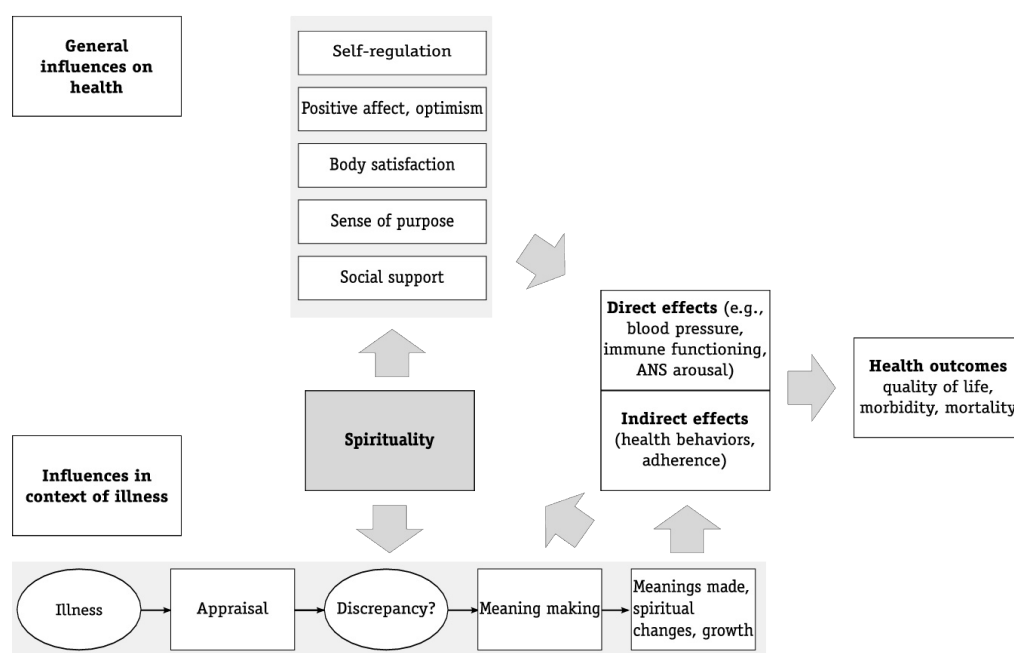


Figure 2: Influences of spirituality on health

appraise the meaning of their illness based on information they receive from sources such as their healthcare providers (Leventhal, Weinman, Leventhal, & Phillips, 2008), their appraisals of their ability to manage the illness and its anticipated impact on their future (Leventhal et al., 2008), and their general sense of control over their lives (Weinstein & Quigley, 2006). Research indicates that the meanings that survivors assign to their illness predict their coping and subsequent adjustment. For example, in a sample of CHF patients, we found that threat appraisals predicted higher subsequent levels of depression, although challenge appraisals were unrelated (Park, Fenster, Suresh & Bliss, 2006).

According to the Meaning Making Model, the degree to which one perceives one's illness as discrepant from one's global beliefs, such as those regarding identity (e.g., I live a healthy life style) and health (e.g., living a healthy lifestyle protects people from illness), and global goals (e.g., desire to live a long time with robust health) determines the extent to which the illness is distressing. For example, in our longitudinal study of survivors of various cancers, the extent to which they appraised their cancer as violating their beliefs in a just world predicted poorer psychological well-being over the course of a year (Park et al., 2008).

The meaning making model posits that efforts at meaning making are essential to adjustment to serious illness by helping patients either assimilate the illness into their pre-illness global meaning or helping them to change their global meaning to accommodate it (Lepore, 2001). Making meaning of illness involves attempts to integrate one's understanding (appraisal) of the illness together with one's global meaning to reduce the discrepancy between them (Park & Folkman, 1997). For example, people may gradually shift their views

of their illness in a more positive direction (e.g., Maliski, Heilemann, & McCorkle, 2002) or they may gradually reconsider their life goals or life meaning in light of the illness (see Park, 2010b).

As noted earlier, meaning making per se is thought to be helpful when it results in meanings made, reducing the discrepancy between situational and global meaning. For example, a longitudinal study of people with spinal cord injury found that those who continued to search for meaning over time were worse off, but those who increasingly reported found meaning over time had better adjustment (Davis & Novoa, 2013). These meaning making processes help people to change their understanding of their illness (changed appraised meaning, such as its cause or implications for their lives or their ability to handle it). For example, in our study of young to middle-aged cancer survivors, we found that meaning making in the form of positive reappraisal led to increases in perceived growth and life meaning, which led to reduced perceptions of the cancer as discrepant from a just world belief. This process was related to better psychological adjustment (Park et al., 2008). People may also make changes in their global goal and beliefs, such as shifting their life goals to be more realistic in light of their illness (e.g., Garnefski & Kraaij, 2010) or holding a new identity that integrates their illness experience (e.g., Zebrack, 2000). For example, when asked about their post-cancer identities, 83% of our sample of young to middle aged cancer survivors endorsed "survivor" identity, 81% the identity of "person who has had cancer", 58% "patient", and 18% "victim" (Park, Zlateva, & Blank, 2009). Endorsement of survivor identity correlated with better psychological well-being and victim identity with poorer well-being.

The most common meaning made among people with serious illness is stress-related

growth, which refers to the positive changes people report experiencing as the result of stressful encounters such as serious illness (Park, 2009). Stress-related growth has been of increasing research interest in recent years (Park, 2009; Sumalla, Ochoa, & Blanco, 2009). Stress-related growth is also referred to as “posttraumatic growth,” “perceived benefits” “adversarial growth,” and “benefit-finding” (Sumalla et al., 2009). Stress-related growth is commonly reported in studies of people with health problems such as cancer, heart disease, and HIV (Leung et al., 2010). Reported positive changes may occur in one’s social relationships (e.g., becoming closer to family or friends), personal resources (e.g., developing patience or persistence), life philosophies (e.g., rethinking one’s priorities), spirituality (e.g., feeling closer to God), coping skills (e.g., learning better ways to handle problems or manage emotions), and health behaviors or lifestyles (e.g., lessening stress and taking better care of one’s self) (Park, 2009). Stress-related growth is thought to arise as people attempt to make meaning of their illness (Rajandram, Jenewein, McGrath, & Zwahlen, 2011). However, perhaps counterintuitively, stress-related growth is inconsistently related to well-being. For example, a study examining reported growth in cancer survivors from pre-surgery to one year later found it unrelated to well-being at any point cross-sectionally, although increased growth over time predicted higher levels of well-being (Schwarzer, Luszczynska, Boehmer, Taubert, & Knoll, 2006).

Spirituality often figures heavily in individuals’ efforts to deal with serious illness (Cummings & Pargament, 2010; Koenig et al., 2012) and, as shown in Figure 2 (lower panel), can influence many aspects of this process. At diagnosis, individuals’ pre-illness spirituality may influence the situational meaning they assign to their illness. For example, a study of

patients in treatment for a variety of cancers found that although religious beliefs (e.g., “I believe that God will not give me a burden I cannot carry”) did not directly relate to psychological adjustment, those with higher religious beliefs had a higher sense of efficacy in coping with their cancer, which predicted better adjustment (Howsepian & Merluzzi, 2009). In our above-mentioned study of cancer survivors, we found that attributing cancer to an angry or punishing God predicted poorer subsequent adjustment (Exline et al., 2011).

Meaning making often involves spiritual methods. For example, survivors may try to reappraise their illness as an opportunity for spiritual growth or come to see God’s purpose in it. They may also actively question whether God has control in their lives or even whether God exists, often termed “negative religious coping” (Cummings & Pargament, 2010).

Finally, meanings made can be changes in spiritual appraisals of one’s illness, such as seeing it as an opportunity to grow closer to God or to become more compassionate and patient. Meanings made can also involve global spiritual transformation of one’s beliefs and goals. For example, many cancer survivors report feeling closer to God, more certain of their faith, and more committed to their religion. Many also report behaving more compassionately and finding more spiritual meaning in their relationships with others and themselves (e.g., Cole, Hopkins, Tisak, Steel, & Carr, 2008). Less commonly, survivors may report spiritual decrements as well, such as a diminished spiritual life and a loss of spiritual meaning as a result of their cancer experience (Cole et al., 2008).

The notion that transformation can arise from suffering is an idea common to many religions including Buddhism, Judaism, and

Christianity (Aldwin, 2007). Not surprisingly, then, spirituality and spiritual coping are among the strongest and most consistent predictors of reports of growth (Shaw, Joseph, & Linley, 2005). For example, in our sample of cancer survivors, the effects of spirituality and spiritual coping strongly predicted growth (Park, Edmondson, & Blank, 2009). Spirituality can also lead to other aspects of stress-related growth, such as changes toward a healthier lifestyle. For example, in this same sample of cancer survivors, spirituality was linked to greater adherence to doctor's advice as well as to more exercise, while religious struggle was related to greater alcohol use (Park, Edmondson, Hale-Smith, & Blank, 2009).

Conclusions and Future Directions

This brief overview highlights the ways that the Meaning Making Model can serve as a useful framework for considering how global meaning relates to health psychology. A growing body of research demonstrates that all three aspects of global meaning—beliefs, goals, and subjective sense of purpose—are related to general indices of health and well-being. Further, global meaning is pervasively involved in coping with serious illness. In addition, the meaning making model demonstrates how spirituality, a core aspect of global meaning for many, is related to health and involved in dealing with serious illness. However, many of the extant studies are suggestive rather than conclusive, given that the research is nearly all cross-sectional and correlational.

At this point, research linking meaning and health is strongly suggestive, but much work remains to be done. Several particularly promising research directions involve prospective studies that examine global meaning in people prior to (or at the very least, shortly after) diagnosis and track their global and appraised meanings over time and phases of the

illness. Such studies would allow researchers to examine the processes of meaning making as they unfold and the determinants of changes in those meanings over time. The multidimensional nature of many meaning-related constructs, particularly spirituality, warrants attention as well. For example, negative religious meanings may be particularly detrimental to health (Exline & Rose, in press), yet we do not understand how or why negative meanings are formed and change over time. The Meaning Making Model identifies the elements important to be examined in future research to illuminate central processes of health and adjustment to illness and to inform more effective interventions for promoting health and well-being. ■

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keynote article

Quality of life of patients and health care professionals

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Quality of life is a concept that appeared in the scientific literature in the early seventies of the previous century. The concept was introduced by oncologists who were confronted with the fact that medical treatment in terminal patients was very detrimental for their psychosocial functioning while the treatment did not significantly change their life expectancy. From that time dates the dilemma in palliative care: should we add by medical treatment years (months or weeks) to life or life to the years (months or weeks)?

While the initiative of these medical doctors was thus very noble and soon led to an enormous increase in publications on quality of life, the lack of a theoretical background created however an undesirable diversity in the use of the term and as a consequence, in the way quality of life was measured. Quality of life can indeed be considered as one of the broadest 'garbage' concepts in the psychosocial literature. Marie-Christine Taillefer and her colleagues (2003) were among the first to illustrate the wild growth of the concept in an excellent review on health-related quality of life models. They identified over 50 different definitions of quality of life and tried to categorize these different concepts into the following conceptual or theoretical frameworks : (a) happiness ; (b) well-being ; (c) satisfaction ; (d) performance ; (e) functioning ; (f) goal attainment ; (g) need satisfaction ; (h) health and (i) none of these. It is revealing that a low inter-rater reliability was found for about half of these categories, due to the fact that most authors did not give a clear definition, while about a quarter did not define

the concept at all. This led to a myriad of quality of life instruments that, in contrast to e.g. depression or anxiety measures, are constructed on ad hoc basis with little concern for their psychometric properties. To make things worse, while most efforts were initially devoted to the development of general health related quality of life scales, including different aspects or categories of quality of life, the development of disease specific scales increased the specificity but also the diversity of the measures leading e.g. to subscales measuring pain, discomfort, worry, financial problems, positive feelings, communicative aspects, spiritual needs, fatigue and other disease specific symptoms.

In addition, the pragmatic attitude towards the development of quality of life measures also led to another controversy: many medical doctors use health status or functional measures to determine the quality of life of their patients that may measure health perceptions, but not necessarily quality of life. According to Moons and colleagues (2006) quality of life is indeed the result of a subjective evaluation of own life conditions and not the objective or external perception of these conditions. Needless to say that the discipline of psychology can contribute importantly to: (a) provide a theoretical base for the concept and the development of quality of life measures and (b) increase the psychometric properties of the measures.

As the review by Taillefer and colleagues (2003) showed, many psychological models can

provide a relevant theoretical background for a better understanding of quality of life. Among these, self-regulation models are a good candidate to clarify what is and what contributes to quality of life. Self-regulation can be defined as a goal-guidance process, while goals can be described as thoughts about or mental representations of desired outcomes or states. Goals have content and provide direction for our behavior (Maes & Karoly, 2005). Within this framework quality of life can be defined as the degree to which the attainment of important personal life goals is facilitated, unaffected or disturbed by a person's present condition or disease. To explore this, we conducted a study in 160 myocardial infarction (MI) patients shortly after hospitalization showing that the most powerful predictor of quality of life, anxiety and depression was personal goal disturbance as a result of their cardiac event (Boersma, Maes & Joeke, 2005). A follow-up study with 113 MI patients showed that personal goal disturbance after the event was also the most important predictor of quality of life four months later, even when controlling for demographics, disease severity, disease related coping and social support (Boersma, Maes & Van Elderen, 2005). The identification of disturbed personal goals as a consequence of a disease provides a unique opportunity for targeted interventions to increase quality of life in patients suffering from chronic diseases, since it allows to explore with the patient how important but disturbed goals can still be attained or to facilitate acceptance of the unattainability of certain goals by refocusing on other, attainable goals (Maes & Karoly, 2005). This process could also be defined as a guided response shift or in other words a change in internal standards or values (reordering the personal goal hierarchy) over time that so frequently occurs in patients suffering from a chronic condition over time (Schwartz and Sprangers, 1999).

This intervention perspective is very important since a main characteristic of many health related quality of life measures is that they provide insight in the current status, functioning or wellbeing of patients, but do not have a clear diagnostic value in view of interventions. Quality of life is indeed rather seen as a consequence of a (physical or psychological) condition or disease, than as a condition itself. As a consequence, in contrast to e.g. depression or anxiety measures, quality of life measures do not provide us with clear subclinical or clinical cut-off scores that are a good indicator for subsequent psychological interventions. In addition, conventional HRQOL questionnaires are frequently used to assess the effect of a psychological intervention in patients suffering from a chronic disease but mostly fail to show an effect (see e.g. Baraniak & Sheffield, 2011 ; Van Malderen et al 2013). While there may be many reasons for this, such as the lack of specificity of some, especially general, quality of life questionnaires, many instruments are apparently only relevant to assess patients during a specific disease stage or unable to measure changes over a longer period of time. In a follow-up study that we conducted with 1654 cardiac rehabilitation patients with the MacNew, a specific quality of life questionnaire that is widely used in patients suffering from coronary heart disease, we showed e.g. that the MacNew differentiated well at the start of cardiac rehabilitation and was responsive enough to capture beneficial changes during cardiac rehabilitation, but lost its discriminative power at the end of cardiac rehabilitation because of ceiling effects (Maes et al. 2008). Also for this reason, anxiety and depression measures should complement the assessment of quality of life over time.

Quality of life of health professionals is equally important. Publications targeting quality of working life use a range of indicators that is

almost as wide as the range for patient quality of life. Examples are work involvement, intrinsic job motivation, higher order need strength, perceived intrinsic job characteristics, job satisfaction, life satisfaction, happiness and lack of job stress, role conflict or turnover intention. This shows, as was the case for the origins of health related quality of life of patients, that many publications lack a coherent theoretical background. Such a background can e.g. be found in the Job-Demand-Social Support or JDCS model or the more recent Job Demand-Resources model. According to the JDCS model, high job demands (workload and time pressure) increase strain, while high job control (skill discretion and decision authority) and a high social support (from the boss or colleagues) diminish strain. The most detrimental work situation is characterized by high demands, low control and low social support and proves to induce many adverse physical and psychological consequences, including a low quality of working life as shown by high stress, eventually leading to burnout as well as low job satisfaction and work engagement and/or a high turnover intention (for reviews see: Van der Doef & Maes, 1998 and 1999a). As the model had been criticized for its simplicity and thus the neglect of other important determinants we conducted a literature review that contributed to the construction of the Leiden Quality of Work Questionnaire (Van der Doef & Maes, 1999b) measuring next to the JDCS dimensions also role ambiguity, physical exertion, hazardous exposure and job insecurity as relevant predictors of wellness at the worksite. While several other general questionnaires distinguished comparable predictors, we soon discovered that general quality of work questionnaires lacked the specificity to adequately unravel the job and environmental characteristics of a specific job. For this reason we developed a specific questionnaire for teachers that proved to explain up to 20% more

variance in relevant outcomes than a general scale (Van der Doef & Maes, 2002).

The teacher quality of work scale was soon followed by the Leiden Quality of Work Questionnaire Health Care (LQWQ-H), with specific questionnaires for medical doctors, nurses, laboratory and administrative personnel. The LQWQ-H measures JDCS variables and other job characteristics, but also organizational and environmental conditions based on the TRIPOD model (Akerboom & Maes, 2006). The instrument consists of 12 subscales measuring quality of work life and one scale measuring an outcome: job satisfaction. The subscales are: work and time demands, physical demands, skill discretion, decision authority, social support supervisor, social support colleagues, nurse-doctor collaboration, personnel resources, material resources, reward, work agreement and communication. Many studies have since been carried out with the LQWQ-H in populations of nurses, medical doctors and other health care professionals that confirmed its predictive power in relation to job satisfaction, job engagement, turnover intention, distress, somatic complaints and burnout (e.g. Gelsema et al, 2006; Adriaenssens et al, 2011; Pisanti, 2012). In more recent research carried out at Leiden, self-regulation constructs such as regulatory focus and personal goal facilitation proved to explain additional variance in these outcomes (e.g. Gelsema, 2007 ; Pisanti, 2012 ; Koelewijn, 2013).

It is obvious that the diagnosis of the workplace in terms of wellness risks based on instruments like the LQWQ can form a solid base for interventions. As a consequence, in the last 25 years five large worksite health promotion (WHP) projects were developed and evaluated at Leiden university. Among these are the Brabantia project, that got a lot of international attention since it was one of the first WHP projects that not only focused on lifestyle

changes and related biomedical risk factors but also on changing wellness risks. The project was especially effective in increasing job control and decreasing absenteeism in factory workers (Maes et al, 1998). More recent comparable WHP projects carried out at Leiden University Medical Center (LUMC) and the Work Without Worry (WWW) project, that aimed to improve work conditions for employees at health care centers for disabled people, also showed that a targeted intervention can have beneficial effects on relevant targets and outcomes (Verhoeven et al., 2005 ; Koelewijn, 2013).

These interventions are not only important from a quality of work life or health perspective, but also from a consumer or patient perspective since work conditions are also determinants of quality of care and patient safety (Gershon et al, 2007).

Summarizing, one could state that the relevance of the concept of quality of (working) life can be increased by a sound theoretical background and the development of valid and reliable measures that allow for an adequate diagnosis of important determinants, leading to subsequent, targeted interventions. ■

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A spotlight on two national delegates



Ewa Gruszczyńska

National Delegate Poland

Dr. Ewa Gruszczyńska is a Chair of the Health Psychology Department and a Director of the Clinical Psychology Institute at the University of Social Sciences and Humanities, Warsaw, Poland. Her main research interests are stress and coping, especially emotion-focused strategies, and the process of adaptation to critical life events. She has authored or co-authored 19 publications and 26 presentations at international and national conferences. In the past decade, Ewa was a principal investigator (PI) of six research projects and an executive coordinator (co-PI) of two other research projects. She also has supervised more than 60 master's theses.

Dr. Gruszczyńska teaches and conducts research at the University of Social Sciences and Humanities since 2003. She is part of a team working on the first bachelor psychology program in Poland, following the Bologna process and the European regulations regarding qualification standards for psychologists (European Certificate in Psychology). Up to now all Polish universities have had only a 5-year master's program in psychology. Ewa believes that these new innovations in teaching psychology are very challenging but necessary for the development of psychology in Poland.

Ewa completed her master's degree in psychology at the University of Silesia at Katowice (1998) and received her PhD in psychology from the same university (2002). Her

doctoral supervisor was Prof. Irena Heszen, who was one of the founders of Health Psychology in Poland. Ewa has continued on the path of professional involvement in psychology and related disciplines, and is active in the Polish Psychological Association (serving as a board member of the Health Psychology Section), in the International Society of Behavioral Medicine (served as a secretary of the Central and Eastern European Society of Behavioral Medicine, 2006-2011), and in the EHPS (national delegates of Poland, 2008-present). Ewa was also a secretary of the 20th jubilee EHPS conference (Warsaw, 2006, with Kaz Wrzesniewski as president) which was held for the first time in the Central-Eastern Europe.

At the EHPS, as the Polish National Delegate, Ewa lobbies for the interests of her region, and can always be relied upon for consultation and tasks related to the EHPS activities. Ewa views the EHPS conferences as a great opportunity to advance collaborative work with colleagues from different countries. Following the establishment of such contacts, she has recently (2012) spent two months in Berlin at the Freie Universität, invited by Prof. Ralf Schwarzer and supported by a scholarship from the German Academic Exchange Service (DAAD). The output of this visit was a grant proposal developed in collaboration with Prof. Nina Knoll and Dr. Lisa Marie Warner, bringing together their respective expertise and interests (coping, couples, and late adulthood) into the realm of adaptation to retirement. This grant was awarded in March 2013 by the Polish-German Foundation for Science.

Dr Barbara Mullan is the newly elected National Delegate from Australia. Though Australians are the fifth biggest national group in the EHPS (2012), they were not represented in the national Delegates forum till this year.

Dr. Mullan is originally from Ireland. She completed her undergraduate studies in University College Dublin, where she then studied social and organizational psychology. She completed her PhD in health psychology in University of Wales Institute Cardiff. Dr. Mullan is a Chartered Health Psychologist with the British Psychological Society, a registered Health psychologist with the Health Professions Council, a long-time member of the European Health Psychology Society (EHPS) and has worked in health psychology for more than 15 years. Her research interests include social cognition models in predicting and intervening to improve health, particularly food-related behaviours, physical health and addiction, with over 70 peer reviewed publications.

Dr. Mullan moved to Australia seven years ago in order to work at the School of Psychology at the University of Sydney. She developed the master's program in health psychology, where the program has 18 students annually. As of November this year Dr. Mullan will be taking up a new Associate Professor position as part of the Health Psychology & Behavioural Medicine Research Group in the School of Psychology & Speech Pathology at Curtin University. Dr Mullan is newly appointed to the Executive Committee of the Australasian Society for Behavioural Health and Medicine (ASBHM), who hold an annual conference, which will be in Auckland next year. APA Health College holds a professional meeting every two years, but health psychology in Australia is still an emergent area, and hence the contact with the EHPS provides and fosters a much needed professional identity. Dr. Mullan is in favour of developing EHPS activities in Australia and will work with the EC of the EHPS to realize such plans.



Barbara Mullan

National Delegate

Australia

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