Summary of behaviour change literature

Excerpt from Gale and Skouteris, 2013

The many theoretical models, constructs, and principles that exist in the health behavior change literature provide insight into human behavior. They explain why only 50% of people (or less) adhere to treatment and lifestyle recommendations, and suggest what is required to facilitate and maintain change (Becker, 1985). There have been a number of attempts to distil essential concepts from the different theories (Abraham *et al.*, 2009; Dixon, 2008; Fishbein *et al.*, 2001; Michie *et al.*, 2005; Noar & Zimmerman, 2005; Webb *et al.*, 2010). From these there appear to be three main categories of processes required to optimally facilitate health behavior change: (1) processes required to form a behavioral goal intention, (2) processes required to convert the behavioral goal intention into action and maintenance, and (3) communication processes that are characteristic of a patient-centered therapeutic approach.

There is a general consensus in the literature that two fundamental cognitive drivers that affect intention to make a behavioral change are motivation (i.e., one's desire or will to engage in the behavior) and self-efficacy (i.e., belief in one's ability to perform the behavior) (Bandura, 2001; Dixon, 2008; Fishbein *et al.*, 2001; Mason & Butler, 2010; Rollnick *et al.*, 1999). A number of different factors are known to influence motivation, including conscious and subconscious processes, risk appraisal, internal and external drivers, different beliefs (and knowledge) about the consequences of current behavior, the expected outcomes of the new behavior, and perceptions of social norms including others' attitudes and behavioral approval (Dixon, 2008; Fishbein *et al.*, 2001; Martin *et al.*, 2010; Michie *et al.*, 2005). The second component, self-efficacy (Bandura, 1986), is related to one's confidence in or perception of behavioral control, and appraisal of one's skills necessary to perform the behavior. Thus, people need to believe that making a specific change is important, given their other competing priorities, and they need to believe that they are able to perform the required action, in order to form a behavioral intention to change (Dixon, 2008; Fishbein *et al.*, 2001; Michie *et al.*, 2005). What we refer to here as processes required to form a behavioral goal intention draws together the essential components from the health belief model (Rosenstock, 1974), theory of planned behaviour (Fishbein & Ajzen, 1975), social cognitive theory (Bandura, 2001), protection motivation theory (Rogers, 1983), self-regulation theory (Deci & Ryan, 2008), and decision-making and decisional balance (Janis & Mann, 1977). These processes are the driving forces behind individuals' intentions to perform or change specific behaviors.

Motivation and self-efficacy relate closely to the commonly used concept of readiness to change. The most widely utilised model of readiness describes how people move toward, initiate, and maintain behavior change in qualitatively different stages over time (Prochaska & DiClemente, 1984; Prochaska *et al.*, 2008b). Rollnick *et al.* (1999) describe readiness as the combined effect of importance and confidence to change. These concepts relate closely to motivation and self-efficacy respectively. Gale (2012) suggests that it is also clinically useful to conceptualize timing (of current situational factors in an individual's life) as a third factor that impacts on readiness to change. In essence, readiness is a useful concept due to the assumption that the clinical intervention and processes of change that will most effectively move a person toward the ultimate behavioral goal will vary depending on the individual's current stage (or level) of readiness (Prochaska & DiClemente, 1984).

Once an individual has made the decision to change his or her behavior and has formed a behavioral goal intention, processes such as those encapsulated in the notion of volitional planning are required to convert the goal intention into action and maintenance (Sheeran *et al.*, 2005). According to the model of action phases (Heckhausen & Gollwitzer, 1987), volitional processes are required because "whereas intention formation is guided by people's beliefs about the desirability and feasibility of particular courses of action, intention realization is guided by conscious and unconscious processes that promote the initiation and effective pursuit of the goal" (Sheeran *et al.*, 2005, pp. 279–80). The components of behavioral volition include goal setting and action planning (which incorporates a knowledge of both what to do and how); overcoming barriers (dealing with environmental or tangible constraints, coping planning, building hope and cognitive-behavioral therapy strategies to overcome psychological or emotional barriers); and forming implementation intentions (planning "if-then" strategies to identify when and how to act, and how to respond in a specific situation that may otherwise undermine intended behavior). These volitional processes draw together the essential theoretical components from goal setting theory (Locke *et al.*, 1981), the model of action phases (Heckhausen & Gollwitzer, 1987), implementation intentions model (Gollwitzer, 1993, 1999), coping Planning (Sniehotta *et al.*, 2005), and hope theory (Snyder, 2002). These processes are also reflected in clinical tools from CBT (Beck, 1993), solution-focused coaching (Grant & Greene, 2003), and relapse prevention (Marlatt & Gordon, 1980).

The third and final set of processes required for health systems and clinicians to optimally facilitate behavioral change is the "therapeutic approach" or the context and communication processes of the health consultation and patient–practitioner interaction. The literature in this area indicates that a patient-centered approach that encourages a positive therapeutic alliance, client choice and decision-making, respect for the needs and preferences of the client, a focus on client autonomy and intrinsic motivation (rather than extrinsic or controlled motivation), and communication that is non-confrontational and non-judgmental (rather than didactic, coercive or fear inducing) is positively associated with effective performance, maintained behavior change, and psychological wellbeing (Becker, 1985; Butler *et al.*, 1999; Moller *et al.*, 2006; Wagner *et al.*, 2005). These communication processes incorporate theory and intervention models from motivational interviewing (Miller & Rollnick, 2002), the patient-centered approach (as in Wagner *et al.*, 2005), therapeutic alliance (Bordin, 1975; Luborsky, 1976), self-determination theory (Deci & Ryan, 2008), and intrinsic motivation (Deci & Ryan, 2008; Vansteenkiste *et al.*, 2006).

In order to understand why health behavior change interventions work and how to design them to be optimally effective and efficient, we need to be able to measure the effectiveness of the interactions that occur between clinicians and patients or program participants (Dixon, 2008). This requires the systematic application of behavior change principles across clinicians in any one intervention, and the collection of behavior change process data that can shed light on which techniques and processes are responsible for changes in relevant psychological variables, behavior, and – ultimately – the physiological outcome measures targeted in health interventions.

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