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GO Cycle of Change: change promoter or benevolent fiction?

Prochaska and DiClemente's ubiquitous 'five stages of change' seems to offer a scientific system to guide clinicians and therapists on how to work with patients – how to recognise when someone is ready to commit to treatment (or if not to nudge them towards a more receptive stage), and how to avoid wasteful change attempts with those not yet ready to change. Implicitly or explicitly, in services across the UK this system is used to recognise the motivational state of patients and clarify how to promote progression to sustained recovery. Its simplicity is beguiling, but can it really be used to *generate change* by matching patients to interventions, or does it simply *describe* one type of change process?

A 'common sense' model of change

The stages of change are the "most eye-catching" aspects of a 'transtheoretical' model of behavioural change, originally based on a comparison of 'self-changers' versus those in professional smoking-cessation treatment. Testing and applications of the model later extended to a range of other health-related behaviours including substance use, cancer screening, and HIV/AIDS prevention, but today smoking still accounts for the bulk of studies.

The model's suggestion "that individuals pass through five stages in changing their behaviour" has been analysed in the Effectiveness Bank. It explains that the stages portray motivational transition as a fixed, segmented sequence leading from 'No acknowledged problem,' through to 'No problem now'. Among its attractions is the feeling that one has gained insight in to something important, technical and scientifically valid, yet which accords with common sense: that (for example) it is no use trying to close the deal on a change plan if the client has yet to see the need for change, that what it takes to embed change is not the same as what it takes to generate it, and that overcoming dependent substance use is no quick fix, but sequentially requires awareness, thought, preparation, implementation and stabilisation, each stage of which must be completed to provide a foundation on which the next stage can build with a chance of success:

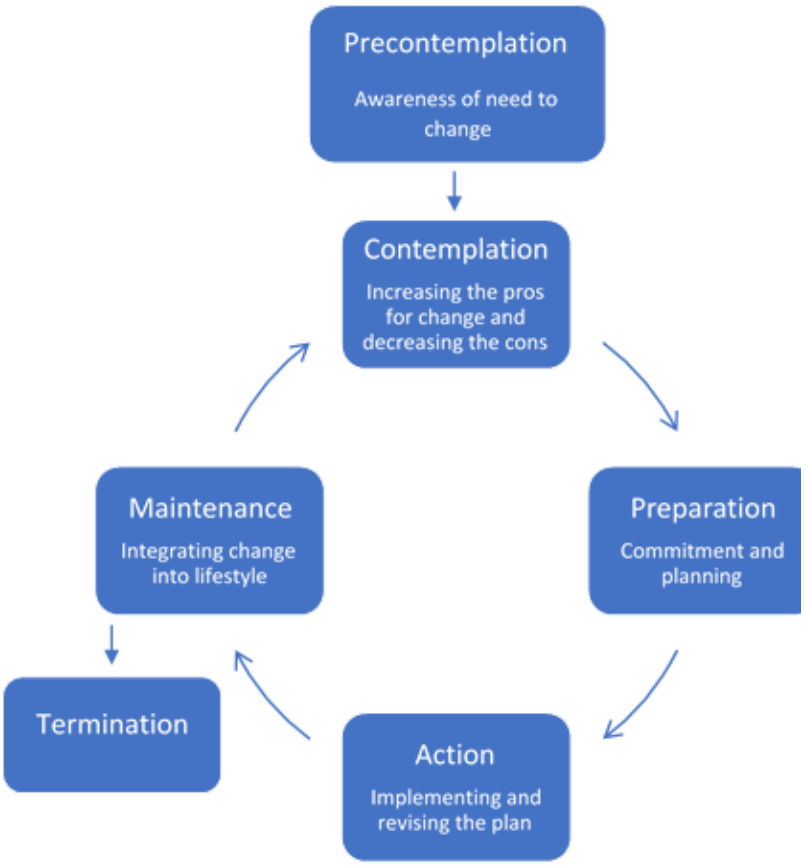
*"The first stage, **pre-contemplation**, designates individuals who are not thinking about performing the behaviour in question and are not sufficiently aware of the health implications of their actions.*

*The second stage is labelled **contemplation**, the stage at which persons start to think seriously about changing their behaviour, but have not yet acted.*

*The third stage is called **preparation** and is characterized by people preparing themselves and their social world for a change in their behaviour.*

*When individuals successfully and consistently perform the behaviour in question, they are regarded as being in the **action** stage.*

*Progression from the action stage to the **maintenance** stage occurs when the behaviour in question has been performed for six months or more" (emphasis added).*



A cyclical representation of movement through the stages of change, adapted from here

The diagram above right (▸ image) depicts the stages as a *cycle* of change, showing how the model can accommodate the routine lapses and relapses people experience, and how patients who face set-backs can continue to do (or redo) the work until they successfully reach their desired point in recovery. This process has also been illustrated by the originators as a *spiral* of change – each loop of the spiral depicting patients getting closer to lasting recovery, and each loop of the spiral representing a different experience for patients as they learn from their mistakes or what didn't work last time, and try different tactics. In an online workbook exploring the principles and techniques for working with young people with substance use problems, the Australian Government Department of Health described the stages as an "upward spiral process", involving progress through a series of stages until reaching the "lasting exit". About relapse, they said:

> *"Research clearly shows that relapse is the rule rather than the exception … Relapses can be important for learning and helping the person to become stronger in their resolve to change. Alternatively relapses can be a trigger for giving up in the quest for change. The*

key to recovering from a relapse is to review the quit attempt up to that point, identify personal strengths and weaknesses, and develop a plan to resolve those weaknesses to solve similar problems the next time they occur."

Embedded within this explanation of relapse are the other "relatively neglected" features of the transtheoretical model – the mechanisms that explain *how* people navigate change. These are known as the ten processes of change, decisional balance, and self-efficacy. Studies have reportedly shown that use of the processes of change has helped and encouraged smokers to quit, employees with low socio-economic status to engage in more physical activity, and members of the public to consume less alcohol.

No planning needed

When behavioural change is intentional, 'cycle of change' and derivative models offer a detailed and possibly valid description. But what of when a smoker suddenly becomes disgusted with their smoking, spits out the cigarette half way through, dumps the remnants of the packet in a bin, and never turns back as if something had *overtaken* them? Intentional change is not the only or it seems the most robust way people initiate change. For smoking in particular, it may be a minority route, and one half as likely to 'stick' as unplanned attempts.

Unplanned and famously successful drinking cessation events have been documented by recovery analyst and advocate William White. They include the account of Bill Wilson, who went on to co-found Alcoholics Anonymous. Hospitalised for the fourth time for alcohol detoxification, "he cried, 'If there is a God, let Him show Himself!', the room became ablaze with light and Wilson was overwhelmed by a Presence and a vision of being at the summit of a mountain where a spirit wind blew through him, leaving the thought, 'You are a free man.' Wilson never took another drink."

Perhaps in less florid manifestations, that also seems a common kind of experience among dependent drinkers in treatment in Britain. When asked what they thought had helped them overcome their dependence on alcohol, patients in the UK Alcohol Treatment Trial (UKATT) commonly described revelatory moments which precipitated wholesale transitions in how they saw drinking, and in their determination to change. As with smoking, in these situations half-finished bottles can simply be poured down the sink or thrown away in disgust.

That doesn't mean unplanned abandonment of substance use is without causes; at the time, the desperate Wilson was ripe for such an experience. But whatever led up to this, at the moment of change immediate causes can take the form of triggers which precipitate change rather than a weighing up of the pros and cons. Another UK survey – which again found unplanned stop-smoking attempts twice as likely to succeed as planned – discovered unplanned attempts were commonly triggered by health advice/concerns, expense, and pressure from family/friends, though 1 in 6 respondents could cite no particular reason. In California, a survey of problem drinkers found that weighing the pros and cons of drinking as a reason for cutting down was much less likely to lead to lasting remission than 'conversion' experiences like hitting rock bottom, a traumatic event, or experiencing a religious or spiritual awakening. And among young people participating in a trial of a Dutch motivational intervention, spending too long in the contemplative stage may have done more harm than good – in this case, more talking and thinking about cannabis (eg, focusing on reasons not to change) without an accompanying rapid nudge to action and a strategy for dealing with ambivalence, was associated with more rather than less cannabis use.

A 'natural fit' with mutual aid and group therapy?

Exemplifying its versatility, the stages of change model has been extrapolated from individual therapy and self-change to non-professional mutual aid and group therapy. Though specific connections have yet to be made in the literature between '12-step' recovery and the stages of change model, the "natural fit between the progression and expectations of behavioral changes" found in both may seem evident. Describing how they complement each other in practice, one paper listed engagement with 12-steps (specifically Alcoholics Anonymous) alongside each of the five stages, arguing that the combination could help treatment providers with client assessment, case formulation, treatment planning, and treatment implementation, and help clients with their progression through treatment (unfold supplementary text).

Agreeing there is good evidence about the value of mutual aid in 12-step programmes, but feeling that "in an increasingly secular society not all people would feel suited to AA", Professors Nick Heather and Keith Humphreys developed an alcohol recovery pilot in England based on the principles of peer-led support and SMART Recovery – a programme that makes use of the stages of change model. The final evaluation report can be found in the Effectiveness Bank. 'SMART Recovery' (a registered trademark) is supported by an international panel of advisors, including stages of change originator Dr. Carlo DiClemente. Still involved in promoting and developing the application of the transtheoretical model, DiClemente is co-author of a second-edition manual of *Group Treatment for Substance Abuse* which explains the 10 experiential and behavioural processes or 'engines of change', a suite of 17 groups sessions targeted at the early stages of change (precontemplation, contemplation and preparation), and 18 group sessions targeted at people in the later stages (action and maintenance).

Matching interventions to stages of change

The stages of change model amounts to a broad guide to what (not) to do with patients at different stages of change. But at the crunch point when it actively engages with change through treatment or brief interventions, research support appears to be largely absent. That is true not just of drug and alcohol problems but of therapy for psychological problems in general. In contrast to other factors, the American Psychological Association could only say matching interventions to stage of change was "probably effective" – and from the relevant review, even "probably" seems optimistic.

The evidence base around smoking, where the transtheoretical model originated, has been bolstered by studies of 'stage-tailored' computer-generated interventions which provided smokers recruited from the general population with individualised feedback about what they are doing and what they could do to progress toward their smoking cessation goals. When in 2010 these studies were analysed for the Cochrane collaboration, the verdict was that "Expert systems, tailored self-help materials and individual counselling, appear to be as effective in a stage-based intervention as they are in a non-stage-based form" – in other words, across all relevant studies, it could not be shown that matching to stages led to more non-smokers. More generally, "Direct comparisons between the same intervention in a standard format or modified by stage of change, with each intervention delivered at a similar intensity, demonstrate neither a beneficial nor a detrimental effect of the staged approach." An earlier assessment conducted for the UK's National Health Service came to a similar conclusion: "Overall, whilst there is some evidence favouring the use of stage-based interventions for smoking cessation compared to no intervention, there is little evidence that stage-based interventions are more effective than non-stage-based interventions."

The most stringent test of stage-matching is to provide exactly the same interventions, but at random to either match or not match these to stage of change. The Cochrane review judged disparities in the findings of such studies "difficult to square with the theoretical model". Most promising of the studies was one of a model developed from the cycle of change. It found that generally smokers whose computer-generated feedback and advice matched their stage were more likely to progress to the next stage, but offered no direct confirmation that they were more likely to successfully stop smoking.

The model's strength lies in …

Despite its limitations, there may still be reasons why the cycle of change model remains valuable, though perhaps not in its intended role of helping match interventions to stage of change. In the last paragraph of the Effectiveness Bank review, the author, a cogent critic, finds many ways in which the model might be a positive influence – a kind of benevolent fiction which gives hope to and motivates both worker and client. Likewise a duo including a leading UK researcher on psychosocial approaches to drinking problems declared themselves not yet ready to abandon the cycle of change, though argued that it itself needs to change. They saw the model's strengths as portraying intentional change as a *process* rather than a one-off event, the insight that the process is essentially motivational, featuring conflict, ambivalence, vacillation, and regret, and found evidence that the model might progress change through stage-matching, at least in relation to smoking. Find all our relevant Effectiveness Bank analyses by clicking this tailor-made search.

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