Use of the Method of Levels Therapy as a Low-intensity Intervention to Work with People Experiencing Sleep Difficulties

**Abstract**

Sleep problems are common with nearly one in three people reporting disturbed sleep. In line with guidelines, most people experiencing poor sleep in the United Kingdom are referred for cognitive and behavioural treatment approaches. A large proportion of these clients are seen by Psychological Wellbeing Practitioners (PWPs) delivering low-intensity therapy within Improving Access to Psychological Therapies (IAPT) services. The training of PWPs in the treatment of sleep problems is limited to sleep hygiene psycho-education. The role that sleep hygiene psycho-education plays in improving sleep quality is unclear, especially if used as a stand-alone intervention. The paper introduces Method of Levels (MOL) as an alternative approach explaining sleep problems by transdiagnostic mechanisms. Two clinical cases are presented to demonstrate how MOL was implemented to support clients with the perceived sleep issue. This paper adds to growing evidence that a transdiagnostic approach to helping people experiencing psychological distress is needed.

**Keywords:** Low-intensity Therapy, Sleep, Insomnia, Method of Levels, Perceptual Control Theory, Transdiagnostic

**Introduction**

Approximately 30% of adults experience disturbed sleep and 10% report symptoms that are consistent with the diagnostic criteria for insomnia (Ohayon, 2002; National Institutes of Health, 2005; Morin et al., 2006b). Disturbed sleep is associated with increased risk of depression (Breslau et al., 1996; Riemann and Voderholzer; 2003), cardiovascular disease (Mullington et al., 2009), impairment in quality of life (Ishak et al., 2012); increased general mortality (Cappuccio et al., 2010), and many other health, societal, and economic consequences (Wells and Vaughn, 2012).

According to the fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM 5; American Psychiatric Association, 2013), insomnia disorder is characterised by dissatisfaction with sleep as a result of difficulties with initiation of sleep, its maintenance, or early morning awakening. To meet the diagnostic criteria, the individual’s difficulties must be present for at least three months, occur at least three nights per week, be present in spite of the opportunity to sleep, and cause significant distress or impairment to their functioning (e.g. occupational, social, academic). These symptoms must not occur as a result of substance use or be better explained by co-existing physical or mental disorder. These criteria apply as a unified diagnosis for insomnia regardless of duration or co-morbidity.

The National Institute for Health and Care Excellence (NICE; 2015) recommends the treatment of short-term insomnia by managing any identifiable causes of sleep difficulties (e.g. asthma) and advising on good sleep hygiene. The use of a short course of a hypnotic drug is considered if the daytime impairment is severe. According to NICE (2015), people experiencing sleep problems lasting longer than four weeks (i.e. long-term insomnia) should be referred to Improving Access to Psychological Therapies (IAPT) programme for ‘a cognitive or behavioural intervention’. The choice of such intervention should be ‘guided by clinical judgement, individual preference, and availability (sic)’ from the following: Stimulus Control Therapy (SCT), Sleep Restriction Therapy (SRT), Relaxation Training (RT), Paradoxical Intention (PI), Biofeedback, and Cognitive- Behavioural Therapy (CBT). The scientific review and recommendations (Morin et al., 2006a; Morgenthaler et al., 2006) indicate effectiveness of all listed interventions with good evidence for SCT, RT, and CBT and moderate evidence for SRT, PI, and Biofeedback. There is also increasing evidence for effectiveness of self-help as a delivery format of therapy (van Straten & Cuijpers, 2009).

Currently there is no formal guidance by IAPT or NICE about the intensity of therapy for sleep difficulties, with the general recommendation that the stepped-care approach should be followed with the least intrusive, most effective intervention first (NICE 2011, 2015, IAPT, 2011,2012). Thus, the majority of people experiencing both primary and secondary sleep difficulties are referred to IAPT. Within the IAPT framework, Psychological Wellbeing Practitioners (PWPs) deliver low-intensity interventions, and High-Intensity Therapists (HITs) deliver CBT. PWPs and HITs receive NHS commissioned training at a postgraduate certificate or postgraduate diploma level respectively. The national curricula for both courses are available at www.iapt.nhs.uk (i.e. PWP: IAPT, 2012, Richards et al., 2011, 2012; HIT: IAPT, 2011).

According to current IAPT recommendations, PWPs provide support for people experiencing mild-to-moderate mental health problems, suggesting that any clients experiencing chronic insomnia of severe symptomatology would need to be directed to a more experienced therapist. Within the current national curriculum for training PWPs (Richards et al., 2010; Richards et al., 2011), sleep hygiene is the only sleep-specific intervention. It typically involves psycho-education about the practices and habits that influence quality of sleep such as introducing beneficial levels of exercise, maintaining a consistent sleep routine, avoidance of stimulants, or making adaptations of the environment (e.g. bedroom).

It is well demonstrated that there is an association between good sleep hygiene and improved sleep quality (Brown et al., 2002; Gallasch and Gradisar, 2007; Mastin et al., 2006; Irish et al., 2015). However, the role that education about sleep hygiene plays in improving quality of sleep is unclear. In fact, studies demonstrate that neither a person’s awareness of good sleep hygiene habits nor educating them on aspects of sleep hygiene improve sleep quality (Stepanski and Wyatt, 2003; Irish et al., 2015; Brown et al., 2002; Gallasch and Gradisar, 2007; Voinescu and Szentagotai-Tatar, 2015). Attempts to examine the impact of sleep hygiene psycho-education on improving sleep quality have identified small to medium effects (e.g. Friedrich and Schlarb, 2018). Doubts have been expressed about the effectiveness of education about sleep hygiene as a stand-alone intervention due to the lack of supportive data (e.g. Morin et al., 2006a, Morgenthaler et al., 2006; Stepanski and Wyatt, 2003; Schutte-Rodin et al., 2008). Therefore, although people who practise good sleep hygiene might experience satisfactory sleep quality, the described evidence suggests that this cannot be achieved by psycho-education, which guarantees neither changes in sleep hygiene nor improved sleep quality.

To conclude, considering the limited effectiveness of sleep hygiene psycho-education, and no training for PWPs in other evidence-based methods, there is a need for alternative interventions that would fit in the low-intensity context (i.e. six sessions of 30-minutes). The current paper describes Method of Levels (MOL), a transdiagnostic psychological therapy with a potential of being a flexible approach that could be incorporated into the low-intensity framework. The paper is divided into three sections. In the first section, the relevant theory that underpins MOL is provided. The second part examines the MOL approach specifically in relation to sleep problems as explained by transdiagnostic mechanisms. The third part describes how MOL may be used in practice as illustrated by two case study examples.

*Method of Levels*

Method of Levels (MOL; Powers, 1972; Carey, 2006) is a transdiagnostic therapeutic approach derived from Perceptual Control Theory (PCT; Powers et al., 1960a, 1960b; Powers 1973, 1990, 1998, 2005, 2008), where the same underlying principles are used to understand and treat all mental health problems. Although MOL did not originate from CBT, it was refined from its early origins (Powers, 1973) by a clinical psychologist with a background in cognitive and behavioural interventions (Carey, 2006). It has been considered as a transdiagnostic approach to CBT (Mansell et al., 2012) but it has also been used by other psychotherapists, as well as counsellors (Carey et al., 2015). The course of an MOL therapy session might at times resemble other therapeutic approaches (e.g. CBT’s Socratic questioning, motivational interviewing, or person-centred counselling). This might be because MOL targets a core process seen to be at the heart of all effective psychotherapies (Higginson, Mansell, & Wood, 2011). The transdiagnostic nature of MOL also varies from Harvey’s transdiagnostic approach to treating sleep problems (Harvey, 2009). MOL is grounded in PCT, based on two simple goals (as described later), and it is client-led rather than formulation-based. In contrast, Harvey’s protocol-based treatment is grounded in a cognitive behavioural model specific to sleep, it follows the traditional CBT format of collaborative formulation, and it addresses a range of cognitive and behavioural processes believed to be shared across psychological disorders, such as selective attention, recurrent negative thinking and safety-seeking behaviours.

According to PCT, psychological wellbeing is maintained by the control of experiences that are perceived as personally important. Every person has their preferences about different aspects of life, e.g. work productivity, daily social contact, length of sleep, or energy levels. Maintaining these preferred states occurs via the process known as negative feedback; the person compares their current experience with their desired state of that experience and engages in actions allowing them to achieve and maintain this desired state by acting against any 'disturbances' in their environment (Powers 1973; 2005). For example, someone who is unable to fall asleep may notice that this is due to the room temperature being too high. They may decide to open a window resulting in a reduced discrepancy between the current state (i.e. feeling too hot), and the desired state (i.e. feeling cool). They feel in control until another discrepancy is noticed such as choosing to close the window when the temperature drops too low.

Negative feedback proceeds automatically within many parallel and hierarchical subsystems to allow an optimal level of functioning and control in all aspects of life. According to Powers (1973; 2005), all things people try to control in life are arranged hierarchically, from sensory perceptions at the lowest level, upward through plans and procedures, to the control of higher-level concepts such as ‘being a worthwhile person’. Everyday language tends to use various terms for the control systems at higher levels - such as values, principles, or ideals. We have used the term ‘goals’ here for simplicity, but it is important to be clear that PCT specifies only control systems. It is the relative levels of these in the hierarchy that is important rather than the term used to describe them.

Considering there are a high number of processes and states people try to control in life, is it inevitable that incompatibilities occur. It is not uncommon that identified action cannot be performed due to another incompatible goal pulling the person in the opposing direction (Powers, 1973; 2005). In reference to the previously used example of opening a window to adjust the temperature of the room, a person might also want to keep the noise level to a minimum and for this reason be reluctant to open the window. Therefore, action taken to gain control of one goal would result in decreased control of the other goal. According to PCT, such a situation is seen as an internal conflict between two opposing goals present at the same time (Powers, 1973; 1998; 2005). The concept of conflict is increasingly recognised in the scientific literature and argued to be present at the core of most psychological disorders (Mansell, 2005; Carey, 2008; Kelly et al., 2011).

PCT theorises that resolving conflicts occurs through a process known as reorganisation. Reorganisation involves random changes which are generated until the person regains control at the level of awareness (Powers, 2005). For example, the person mentioned above might experiment with many ways of controlling both goals until a solution is generated, allowing for a balance between preferred temperature and noise, e.g. investing in a quiet air conditioning system.

Many subjectively perceived difficulties are manifested at a lower level of hierarchy. Symptoms perceived by the client as problematic such as irritability, anxiety, and sleep disruption, might often not be the main source of the problem. From PCT perspective, these symptoms represent a conflict between goals at higher levels, which are sending incompatible signals to the lower level systems. The process of reorganisation takes place right where the attention is directed (Powers, 2005; Carey, 2006). When the person’s perception of the distressing situation is too superficial, the generated changes might not result in any resolution, and the individual will continue to feel distressed. Therefore, approaching the conflict at a low level of awareness such as trying to improve sleep quality by use of sleep hygiene, might not improve a person’s distress because the higher-level goals driving the conflict are not brought into awareness.

Method of Levels (MOL) was designed to help clients to shift their awareness to higher level goals to aid the process of reorganisation (Carey, 2006, 2009; Mansell et al., 2012; Carey et al., 2015). The therapist invites the client to talk about the experienced difficulty and uses curious questioning, allowing for exploration of the topic from different angles. According to Powers (2006) and Carey (2006), sustaining attention on the problem long enough might elicit thoughts and emotions necessary for the process of reorganisation. The therapist enquires about signs indicating that the client might have become aware of something else. Such signals, known as disruptions, usually consist of a change in speech, mannerism, or body language (e.g. looking away, laughing, shaking head, change in the tone of voice, frowning, commenting) and indicate that some background thoughts are going through the person's mind. Asking about disruptions usually involves a simple question, *e.g. ‘what is making you smile?’.* If the thought is irrelevant to the discussed problem, it may be dismissed. However, if the disruption represents a fleeting thought about the discussed problem, the MOL therapist will continue the conversation at this new level of understanding of the problem allowing the person to explore the thoughts that would have otherwise not been given any attention. In PCT terms, any such thoughts are important aspects of the problem, because some of them represent awareness of conflicting goals and higher-level goals that are involved in the discussed difficulty. The process of talking about the problem and enquiring about disruptions (i.e. two main goals in MOL) is continued until the client develops a new perspective of the problem or reaches a resolution (Carey, 2009).

There is growing evidence for the use of MOL in routine mental health services. MOL has been applied and tested in common mental health problems as well as in more complex, secondary care presentations such as psychosis (Carey et al., 2013; Griffiths et al., 2018; Tai, 2009; Tai & Turkington, 2009). However, the efficacy in various contexts and different levels of therapy within the stepped care approaches, are yet to be researched. Thus, whilst it may be possible to apply it successfully to chronic or severe mental health problems such as chronic insomnia, further work would be required to establish this. The findings from uncontrolled trials and case studies suggest moderate to strong effect sizes for the reduction of distress as measured by standard outcome measures in a range of mental health problems including depression, anxiety, panic, stress, social phobia, obsessive-compulsive disorder, post-traumatic stress disorder, learning difficulties, substance use, anger, eating disorder, bereavement, and relationship problems (Carey, 2005; Carey and Mullan, 2007; 2008; Carey, et al., 2009; Carey et al., 2013). Low-intensity workers have been successfully trained to deliver MOL with indications of satisfactory pre-post symptom changes and positive client feedback (Bird et al., 2013; Cocklin et al., 2017). These findings are promising, but there is a need for larger scale trials. The current evidence is insufficient to allow for recommendations on types of clinical presentations that would be appropriate to be treated with MOL at low-intensity services. This paper offers a contribution to the rapidly growing literature on the transdiagnostic use of MOL therapy for a range of mental health difficulties. However, to our knowledge, it is a first attempt at describing the use of MOL in working with people experiencing sleep difficulties.

*Method of Levels Therapy and Sleep Difficulties*

The objectives of the MOL therapist working with a person with sleep difficulties are the same as for other mental health problems, i.e. allowing the client to talk about the problem and enquiring about disruptions. This process might appear differently depending on the client, as the conversation is shaped by the subjective perception of the sleep problem. The therapy aims to help the client to regain control, regardless of what factors such control might involve. Perception of sleep problems is seen as a result or a manifestation of the conflict at a higher level of the control system, and hence therapy would aim to direct person’s attention to such conflict. It is assumed that therapeutic conversation will be naturally directed at the underlying reasons for perceived difficulties helping to understand why the current levels of sleep are seen as problematic.

It is not assumed that the therapy will focus specifically on sleep. The wider literature provides examples of when a therapy directed at a problem unrelated to sleep (e.g. CBT for Post-traumatic stress disorder) resulted in improvements in sleep quality (e.g. Galovski et al., 2009; Gutner et al., 2013; Lommen et al., 2016; Woodward et al., 2017; Belleville et al., 2010; Mason and Harvey, 2014; McGowan et al., 2016). Others discussed how transdiagnostic interventions could have beneficial effects on sleep (Harvey et al., 2011; McGowan et al., 2016). Thus, the process of sleep improvements achieved with currently used methods is not fully understood, but current evidence suggests that improvements in sleep symptoms can be obtained with no need to receive sleep specific-intervention.

The 3P model (Spielman et al., 1987), which is widely used and accepted within the insomnia literature, proposes that an acute sleep disturbance occurs as an interaction of predisposing (biological, psychological, or social factors; e.g. hyperactivity or tendency to worry), and precipitating factors (i.e. life stress events such as lost job or illness). Spielman et al. (1987) state that ‘psychological conflicts’ may precipitate sleep disruption, and this is consistent with the PCT approach. However, Spielman et al. (1987) emphasise that sleep disturbance is perpetuated and becomes chronic as a result of the person’s maladaptive attempts to compensate for these sleep difficulties. The examples of perpetuating factors are napping, going to bed earlier, or spending excessive time in bed. In contrast, based on PCT, these perpetuating processes (or any other processes) would only be perceived by the individual as problematic to the degree that they are conflicted with important personal goals (Morris & Mansell, 2018). According to PCT, unresolved goal conflicts stand at the core of perpetuation of the initial acute sleep and the lack of resolution makes them chronic. A client attending therapy at a low-intensity level is likely to have been experiencing a recent episode of sleep difficulties. MOL could help them explore and resolve any conflict before it becomes chronic. Such conflict might, or might not, involve the sleep-oriented perpetuating maladaptive behaviours described in the 3P model.

The concept of control and conflict is not uncommon in the sleep disorders literature, but it is limited. The diagnostic criteria for insomnia include the impact of the sleep disturbance on the important areas of functioning such as social engagement or occupational performance (DSM-IV; DSM-5; American Psychiatric Association; 2000; 2013), suggesting that conflicts between sleep-related symptoms and an individual’s goals in life play an important role. The cognitive-behavioural model of insomnia suggests reduced perceived control over sleep leads to emotional arousal and learned helplessness which are seen as factors impairing sleep and maintaining chronic insomnia (Morin, 1993). In fact, changes in perception of control and predictability of sleep were shown to be significantly associated with improved sleep (Morin et al., 2002). These findings suggest that perception of control about sleep is a major factor in the development and maintenance of sleep difficulties. However, in a study of adults with chronic insomnia, a more internal locus of control about sleep was associated with more sleep-related anticipatory anxiety, suggesting that attempts at purposefully trying to control sleep might be counterproductive (Vincent et al., 2004). Therefore, it can be concluded that therapy should not be aimed at increasing the person’s need to control sleep, but rather supporting the person at improving the perception of feeling in control about sleep (and other personally important goals).

In line with PCT, improving one's perception of control can be achieved by directing a person’s awareness to the underlying conflict between higher level goals. Carey (2008) provided examples of conflicts underlying various psychological problems from a PCT perspective. Considering the multitude of factors involved in people’s control systems, it would not be possible to describe all possible conflicts underlying sleep difficulties. However, the potential types of conflicts are proposed to be: (1) Conflict unrelated to sleep might affect sleep in the form of secondary adverse effects; (2) Conflict resulting from discrepancy between an important personal goal and another goal regarding the duration or quality of sleep; (3) Conflict involving two contradictory goals about sleep. The examples of such conflicts are presented in Table 1.

 [insert table 1]

**Method**

*Selection of cases:*

Two cases were purposively selected to demonstrate effective use of MOL therapy for clients attending low-intensity therapy and reporting sleep difficulties. The sessions were delivered at an IAPT step-2 service by one of the authors of the paper, a PWP with one-year experience in the use of MOL therapy. Both clients have provided written consent for the use of their personal data. Any identifiable details have been removed or altered to allow protection of their identity.

*Measures:*

Standard outcome measures were collected in line with the service protocols using the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001) and the Generalised Anxiety Disorder Questionnaire (GAD-7; Spitzer et al., 2006), providing a score out of 27 and 21 respectively. Each item is scored 0, 1, 2, or 3 for the answers about the frequency of the given symptoms’ occurrence in the last two weeks (0 - not at all, 1 - several days, 2 - more than half the days, 3 - nearly every day). Disorder-specific measures are not used at low-intensity level, hence in this report we included the sleep item from the PHQ-9, i.e. *Trouble falling or staying asleep, or sleeping too much*.

**Treatment**

***Case study 1: John***

*Background*

John is a white British man in his thirties who has attended therapy to get help for his sleep difficulties as a primary problem. Initially John was unable to identify the onset, but exploration showed the stressful job as a teacher and worrying about it played a significant role in the episodes of sleep difficulties, he has been experiencing every few months in the last six years. John changed his employer a few months before attending therapy but his sleep difficulties continued to affect him. The present symptoms included difficulties with falling asleep and maintaining sleep, sleeping only three to four hours per night. The main impact of this was identified as tiredness, poor concentration, and low mood which impact on his ability to perform his job well and engage with activities he enjoys (e.g. playing football with friends).

*Course of Therapy*

The first and second treatment sessions used the standard low-intensity interventions of psycho-education on sleep hygiene and progressive muscle relaxation by following the relevant sections from a self-help manual (The Sleep Council, 2016). The client identified only minor sleep hygiene problems, with the main change made to reduce caffeine use, reduce clock-watching, and a few adaptations made to his bedroom and evening routine. This resulted in a short-lasting improvement in his sleep with one full night sleep reported, followed by return of the sleep difficulties. Collaborative review and reflection resulted in the client’s suggestion that his sleep problems might be related to other aspects of his life which he would like to explore. The therapist switched to using MOL. The excerpt below is from the third treatment session:

John*: Well… I always was a light sleeper, but this got worse six years ago [shaking head]*PWP*: And you're shaking your head?*John*: I was just thinking… I was drinking quite heavy then*

The therapist by enquiring about a disruption (shaking head), helped the client to see a potential factor from the past playing a role in sleep problems. Further curious questioning resulted in understanding the current concerns behind historical drinking:

John*: I’m not sure why did I drink such amounts...*PWP*: Is that what bothers you? The amount?*John*: No. it's more about why did I need so much alcohol to bond with people*

MOL therapy often involves checking whether and to what extent the discussed experience is problematic. It helped John to identify that it is not the quantity of alcohol consumed in the past, but the current understanding of the reasons standing behind drinking as a source of the distress. The conversation continued at this new level of understanding:

John*: I always analyse whether the joke is appropriate… [sighing]*PWP*: What’s popped into your mind just now?*John*: I really don’t want people to have a bad opinion of me*PWP*: A bad opinion…*John*: Yes… I think I have low self-esteem... But I never really thought about it...*

Enquiring about a disruption helped John to identify an important goal concerning other people. The mirroring of the statement about bad opinion back to John gave him an opportunity to reflect on what he had said. John stated that he had never thought about the problem from this perspective and it had helped him to gain a new understanding of the situation. The exploration of the topic continued:

John*: Drinking is not the problem, it’s the fact that I used to drink to feel confident*PWP*: What’s on your mind as you hear yourself put it this way?*John*: I feel a bit puzzled. When I used to drink it was bad, but now when I don’t drink it’s also difficult to sleep. I am lying in bed and thinking about all the things I should or shouldn't have said...*

A commonly used method in MOL is to ask the client about perceptions or thoughts as they occur in the ‘here and now’. These are often thoughts evaluating the problem or representing a different understanding of it. In this instance John spoke about and evaluated mental processes relevant to his sleep difficulties, i.e. worrying preventing him from falling asleep. Further exploration led to John starting to notice contradictory ideas in his mind:

John*: It is like an either-or situation [laughing]*PWP*: What made you kind of laugh about it?*John*: Because my sleep is affected anyway; in the past as a result of drinking or currently as a result of worrying; and neither drinking nor worrying actually improve my social life long-term.*

Following the noticed contradiction, the therapist helped John articulate the conflicting goals. John identified that worrying is associated with the goal of improving his social bonding. However, poor sleep was a consequence of worrying which contradicted other goals of wanting to make sure he is not tired next day and can interact with other people well. Giving John a chance to expand on the conflicting goals, allowed for a new perspective:

John: *I’m thinking whether it’s all worth it…*PWP*: hmm?*John*: To lose sleep over something I can’t change. I can’t aim to fix my social life all the time! [laughing]*PWP*: and you’re laughing again?*John*: Because I feel more in charge now and I can see why my sleep is so bad. It is weird not to change anything but feel completely different about something. I might need some time to think about it.*

The session ended after John reached a different perspective of the problem. The insight or resolution he was talking about suggested a potential start of the reorganisation process, which in line with PCT and MOL is assumed to have continued outside of the session.

*Outcome*

John’s PHQ-9 and GAD-7 scores (table 2) were low from the beginning of therapy as the sleep difficulties were his primary and only concern. The sleep item with initial rating of 3/3 showed improvement to 1/3 following sleep hygiene and relaxation, but the score went up to 2/3 on the next session. Following the above MOL session, John attended the fourth session reporting that his sleep improved to five to six hours per night. The sleep item on PHQ-9 reduced to 1/3. Further use of MOL on the fourth session, resulted in identification and exploration of other conflicting goals about sleep; for example, the need to be productive by worrying and problem-solving social difficulties, but at the same time wanting to relax and unwind. John attended the final session reporting no need for further support and described that he was feeling in control and sleeping between six to seven hours per night and the sleep item was rated as 0/3.

[insert table 2]

***Case study 2: Mark***

*Background*

Mark is a white British man in his sixties who attended the initial assessment session complaining of long-standing difficulties with low mood and low self-esteem but was unable to identify any reasons behind this. Mark described how his mood and self-esteem has gradually deteriorated within the last few years by feigning happiness and confidence in front of others. The impact of this has been identified as follows; low energy levels, poor sleep, no motivation, concentration difficulties, and worrying. With the client’s initial goals not being aimed at sleep problems, the assessment of sleep difficulties severity, frequency, and impact was limited. It was identified that Mark had been sleeping four to five hours per night, was unable to maintain sleep, and tended to be tired and unmotivated, which perpetuated his inactivity and low mood.

*Course of therapy*

During the initial session, Mark stated he would like to explore and understand his issues rather than be given guided self-help materials. The use of MOL assisted him in identifying and exploring the conflict of not feeling ready to let go of wife’s unfaithfulness from the past, but at the same time wanting to enjoy his marriage, resulting in self-critical thoughts and lowered self-esteem. MOL helped him to reflect on related higher-level goals e.g. the impact of his decisions on his children, and the moral values of forgiving others. Mark attended the third session reporting significant improvement in the way he was looking at himself and identified wanting to talk about his sleep. Below dialogues are taken from this session:

*Mark: I spend in bed eight hours, but sleep only four... They tell you everywhere you should sleep eight hours...*

*PWP: And do you think you should?*

*Mark: No, I would usually be fine with about six. But there is this mythology in my head...*

*PWP: Mythology…*

*Mark: It's like an image in my mind that sleeping less than eight hours will make me tired*

Firstly, helping Mark to discuss his preferred state highlighted a discrepancy between an observation of feeling fine when sleeping six hours but having a goal in his mind he should sleep more. Repeating the used word (‘mythology’) back to the client allowed him to reflect, explain, and further understand his assumptions about sleep and feared consequences of tiredness. The conversation continued at this level of awareness until a relevant disruption appeared:

*Mark: I worry about feeling tired [smiling]*

*PWP: What made you smile just now?*

*Mark: It all links together [smiling, looking away]*

*PWP: Are you able to describe the process of what you are trying to figure out now?*

*Mark: It is like a cycle... I worry about not being tired… and I cannot sleep because I worry... So I am tired because I worry to not be tired. So without fear of tiredness, I wouldn’t be tired! [laughs]*

We can observe how therapist by asking about the disruptions helped Mark to notice the background thoughts regarding the cycle of symptoms. Mark continued to laugh and smile while talking about the identified contradictory ideas which allowed for their further exploration. This was followed by further questioning and exploration of the reasons behind the fear of tiredness:

*Mark: I don’t want to be too tired*

*PWP: Do you have some kind of image in your mind of what would happen?*

*Mark: I just don't like it, you are all irritable and... [looking away and fidgeting]*

*PWP: What’s popped into your mind just now?*

*Mark: I was thinking of confronting people. I really don't like it… it makes me feel down about myself.*

MOL therapy allows people to talk about things they usually do not talk about. In this case, Mark was able to describe his fear of tiredness, which resulted in many background thoughts. Directing the attention onto the relevant thoughts led to a higher level of understanding and resulted in Mark logically starting to make sense of them. The further identified fear of confrontation was explored from different angles. Following such discussion, Mark started to reflect on whether or not he would like to confront people more:

*Mark: I wish I was confronting people more... like my manager… She can say anything and not feel guilty. She will come and shout at me and my colleagues and make me feel down.*

*PWP: And you say you wish you could confront people the same way as she does?*

*Mark: Yes... [frowning] no...*

*PWP: What made you change to no?*

*Mark: She doesn’t care about people. I do. I would feel guilty to hurt people. It’s not me.*

The therapist checking back on what Mark said before and enquiring about the process of change as it was happening helped Mark to realise that the vision he had about confronting people was not compatible with his internal goals. This is an important part of MOL therapy, where the client talks about how important their goals are in relation to one another. The therapist helped Mark to expand on his goals and reflect on them. Sustained awareness on these goals allowed for changes to happen later in the session:

*PWP: Is there something at the back of your mind as you talk about all of this?*

*Mark: I keep thinking I would rather not confront people*

*PWP: What makes you say so?*

*Mark: This is who I am. A shy guy, minding my own business… I would rather walk away...*

*PWP: Are you able to describe what happened as you kind of changed your mind?*

*Mark: I think confronting people is not something I was ever doing... I am old now and can't suddenly change myself...*

Following a question commonly used in MOL about the mental process happening ‘right now,’ Mark presented a different view on the topic of distress and started questioning one of the conflicting goals, suggesting the initial stages of the potential process of reorganisation. He continued talking about personally important goals and how they are conflicted with other goals. Previously he described the fear of tiredness which could lead to unpleasant confrontations, whereas here he started talking about how much control he has over whether he confronts people or not:

*PWP: Your mood seems to have switched just now?*

*Mark: I am happy I can walk away. I always thought I am a loser, but it is my choice*

*PWP: A choice?*

*Mark: I am choosing to protect others and take the negative feelings on me… I always thought being tired will make me confront people. But I am usually able to walk away regardless of my tiredness...*

*PWP: Is that right?*

*Mark: Yeah I kind of have a different view of all of this. I know this is not as simple as just making a decision now, but it just feels like the weight is gone from my shoulders.*

By directing the attention to personally important goals, Mark was able to challenge his assumptions about sleep and himself. Firstly, he stopped looking at the idea of ‘walking away’ as negative behaviour. Secondly, he managed to question his fears about the assumed consequences of disturbed sleep. We can observe how, with MOL questioning, Mark reached a point where he started feeling better about the whole situation. Potentially this was the start of the process of reorganisation. Thus the session was ended at this stage allowing this process to continue outside of the session.

*Outcome*

Mark has shown a gradual improvement in his symptoms with a reduction in PHQ-9 and GAD-7 scores throughout therapy (table 3). However, it is evident that the sleep item on PHQ-9 remained high (3/3) until the above described MOL session helped to reduce and maintain this rating at 1/3. Mark attended the next session reporting sleeping approximately six hours per night and experiencing no distress over it. A further two sessions used MOL to help the client to talk about other concerns identified, including worrying, over-thinking, and social anxiety. This helped to reduce the PHQ-9 and GAD-7 scores to non-clinical range. On the final session, the client reported that there was no need for further support, stating a maintained habit of sleeping six hours per night, improved self-esteem, and more positive mindset about the world.

[insert table 3]

**Discussion**

The current paper is aimed at introducing the use of MOL therapy as an alternative approach to working with people experiencing sleep difficulties. Sleep problems is currently explained mostly by cognitive and physiological models (Roth, 2007). We propose that some of these difficulties might be improved or resolved by addressing underlying goal conflict. In both of the described case studies, the clients’ distress about sleep was not directly related to aspects of sleep but, instead, to higher-level goals and unresolved conflicts. Identification of the clients’ goals and directing attention to the core of the goal conflict, appeared to allow change which resulted in both clients attending further sessions with a different view on the discussed difficulties and reporting significant improvements in sleep.

The two cases described provide some insight as to why MOL might be particularly helpful in addressing sleep difficulties. The first goal of MOL is to help the client to talk about their problem, which allows the client to focus on what is most important to them, beyond what their diagnosis or their earlier formulation might imply. MOL keeps their attention there long enough to permit change to happen spontaneously. Secondly, asking about disruptions helps the client to articulate their thoughts and the novel perspectives as they emerge.

A potential criticism of MOL is that it does not explicitly fit or follow currently used theoretical models of insomnia, e.g. cognitive model of insomnia. However, neither the models nor the relevant interventions (such as challenging the distorted perception of sleep or work on erroneous beliefs about sleep) are a part of the current low-intensity training. PCT does not deny the usefulness of these models. Instead, it allows the client to be in control of the therapeutic process and talk only about those areas which they believe are problematic or subjectively relevant (Carey, 2006). In line with PCT, if unhelpful assumptions/beliefs, safety behaviours, poor sleep hygiene, or any other cognitions or behaviours maintaining poor sleep are present, the conversation is naturally directed towards the underlying goals and conflicts. The cognitions or behaviours about sleep that are not in conflict with other goals would not result in any distress. This might explain why, for any person distressed about sleep, it is always possible to find another person experiencing the same sleep quality and duration, but not being distressed. Thus, it is not the process of sleeping itself, but rather the conflict with idiosyncratic goals that are central to client’s perception of distress. Although all people experiencing disturbed sleep (whether distresses about it or not) are likely to suffer health consequences, only those perceiving their sleep as problematic might look for help. This might also explain why many people experiencing sleep difficulties seek professional help late when their sleep problems are severe and chronic. The use of MOL within primary care services might encourage these people to seek support earlier by making therapy more accessible, community oriented, and less reliant on a diagnosis.

In light of the multitude of factors influencing people’s perception of sleep quality and wellbeing, the therapist is unable to know what factors are relevant for the given client. Teaching the person about aspects of sleep hygiene resembles a ‘hit or miss’ strategy. It often leads to superficial attitude to and understanding of the problem and creates the individuals’ belief that they need to control sleep actively. Even though this is not supported by the current evidence base (e.g. Morin et al., 2006a, Morgenthaler et al., 2006; Stepanski and Wyatt, 2003; Schutte-Rodin et al., 2008), the use of sleep hygiene as a stand-alone intervention for sleep difficulties is pervasive within low-intensity services. The MOL therapy, as opposed to sleep hygiene, allows the client to explore the sources and personal perceptions of their sleep problems regardless of whether it involves aspects relevant to sleep hygiene. Although both of the described cases were appropriate for the basic sleep hygiene work and relaxation techniques, it is notable that MOL therapy allowed for exploration of a much wider scale of factors involved in the distress. Approaching John’s alcohol use using standard psycho-educational approach would consist of the therapist collaboratively teaching the client about alcohol-related risks and the impact on mental health. However, the present levels of alcohol use for this client were not problematic. The opportunity to make a link between his current symptoms and historical alcohol use from six years ago was rather a result of MOL approach, and such insight would not even be possible when using standard protocols. This information was used as a stepping stone into giving the client the understanding of personal beliefs about the self and much wider exploration of involved factors and underlying goals. Similarly, after Mark started identifying and challenging his myths about sleep which would be a part of the standard CBT treatment, the conversation shifted away to other topics. From MOL perspective this was important, because by catching disruptions, the client was able to explore the underlying fears and the relevant goal conflict about whether or not he wants to confront people. Only by being able to talk about the involved higher-level goals he started to resolve his conflict and feel more in control. At a later stage, the myth about sleep was not problematic anymore as Mark was not in conflict about the potential consequences of not following it. These examples suggest that MOL can often offer a wider exploration of the problem with the focus on any factors that are involved in the client’s perception of the problem, as compared to standard approaches where external treatment protocol is followed.

The use of MOL may allow PWPs to support people experiencing sleep difficulties with no need to arrange a referral to a more qualified therapist. Consequently, MOL may have the potential to be an alternative cost-effective method for consideration within a low-intensity framework next to currently used sleep hygiene and a method that might help to fill a gap in the treatment of sleep disorders within primary care mental health services. The transdiagnostic nature of MOL gives the low-intensity therapists a reassurance of being able to support the majority of clients that meet the inclusion criteria of the low-intensity services (e.g. moderate depression, moderate anxiety, mild poor sleep etc), rather than limiting the help to only those who fit the currently used interventions.

We can tentatively conclude that MOL shows a promising potential of being an alternative approach to helping people who report sleep disturbances within low-intensity therapy services, regardless of diagnosis. Indeed, this report adds to growing evidence suggesting that a unified scientific approach to helping people deal with psychological distress is needed, such that the focus shifts from a specific cluster of symptoms to the person as a whole.

**References:**

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV (Text Revision).* Washington: Oxford University Press.

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington: American Psychiatric Publishing.

Belleville, G., Cousineau, H., Levrier, K., St-Pierre-Delorme, M.E., Marchand, A. (2010). The impact of cognitive-behavior therapy for anxiety disorders on concomitant sleep disturbances: a meta-analysis. *Journal of Anxiety Disorders,* *24*(4), 379-86.

Bird, T., Tai, S., Hamilton, A., & Mansell, W. (2013). A pilot randomised controlled trial of method of levels as a transdiagnostic intervention within a primary care psychology service. In *British Association of Behavioural and Cognitive Psychotherapies Annual Conference, Imperial College (London)*.

Breslau, N., Roth, T., Rosenthal, L., & Andreski, P. (1996). Sleep disturbance and psychiatric disorders: a longitudinal epidemiological study of young adults. *Biological psychiatry, 39*(6), 411-418.

Brown, F. C., Buboltz Jr, W. C., & Soper, B. (2002). Relationship of sleep hygiene awareness, sleep hygiene practices, and sleep quality in university students. *Behavioral medicine*, *28*(1), 33-38.

Cappuccio, F. P., D'Elia, L., Strazzullo, P., & Miller, M. A. (2010). Sleep duration and all-cause mortality: a systematic review and meta-analysis of prospective studies. *Sleep*, *33*(5), 585-592.

Carey, T. A. (2005). Can patients specify treatment parameters? A preliminary investigation. *Clinical Psychology & Psychotherapy*, *12*(4), 326-335.

Carey, T. A. (2006). *The Method of Levels: How to Do Psychotherapy without Getting in the Way.* Hayward: Living Control Systems Publishing.

Carey, T. A. (2008). Conflict, as the Achilles heel of perceptual control, offers a unifying approach to the formulation of psychological problems. *Counselling Psychology Review*, *23*(4), 5-16.

Carey, T. A. (2009). Dancing with distress: helping people transform psychological problems with the Method of Levels two-step. *The Cognitive Behaviour Therapist*, *2*(3), 167-177.

Carey, T. A., Carey, M., Mullan, R. J., Spratt, C. G., & Spratt, M. B. (2009). Assessing the statistical and personal significance of the method of levels. *Behavioural and Cognitive Psychotherapy*, *37*(3), 311-324.

Carey, T. A., Mansell, W., & Tai, S. (2015). *Principles-based counselling and psychotherapy: A Method of Levels approach*. Routledge.

Carey, T. A., & Mullan, R. J. (2007). Patients taking the lead. A naturalistic investigation of a patient led approach to treatment in primary care. *Counselling Psychology Quarterly*, *20*(1), 27-40.

Carey, T. A., & Mullan, R. J. (2008). Evaluating the method of levels. *Counselling Psychology Quarterly*, *21*(3), 247-256.

Carey, T. A., Tai, S. J., & Stiles, W. B. (2013). Effective and efficient: Using patient-led appointment scheduling in routine mental health practice in remote Australia. *Professional Psychology: Research and Practice*, *44*(6), 405.

Cocklin, A. A., Mansell, W., Emsley, R., McEvoy, P., Preston, C., Comiskey, J., & Tai, S. (2017). Client Perceptions of Helpfulness in Therapy: a Novel Video-Rating Methodology for Examining Process Variables at Brief Intervals During a Single Session. *Behavioural and cognitive psychotherapy*, *45*(6), 647-660.

Friedrich, A., & Schlarb, A. A. (2018). Let's talk about sleep: a systematic review of psychological interventions to improve sleep in college students. *Journal of sleep research*, *27*(1), 4-22.

Gallasch, J., & Gradisar, M. (2007). Relationships between sleep knowledge, sleep practice and sleep quality. *Sleep and Biological Rhythms*, *5*(1), 63-73.

Galovski, T. E., Monson, C., Bruce, S. E., & Resick, P. A. (2009). Does cognitive–behavioral therapy for PTSD improve perceived health and sleep impairment?. *Journal of traumatic stress*, *22*(3), 197-204.

Griffiths, R., Mansell, W., Carey, T. A., Edge, D., Emsley, R., & Tai, S. J. (2018). Method of levels therapy for first-episode psychosis: rationale, design and baseline data for the feasibility randomised controlled Next Level study. *BJPsych open*, *4*(5), 339-345.

Gutner, C. A., Casement, M. D., Gilbert, K. S., & Resick, P. A. (2013). Change in sleep symptoms across cognitive processing therapy and prolonged exposure: a longitudinal perspective. *Behaviour research and therapy*, *51*(12), 817-822.

Harvey, A. G. (2009). A transdiagnostic approach to treating sleep disturbance in psychiatric disorders. *Cognitive behaviour therapy*, *38*(S1), 35-42.

Harvey, A. G., Murray, G., Chandler, R. A., & Soehner, A. (2011). Sleep disturbance as transdiagnostic: consideration of neurobiological mechanisms. *Clinical psychology review*, *31*(2), 225-235.

Higginson, S., Mansell, W., & Wood, A. M. (2011). An integrative mechanistic account of psychological distress, therapeutic change and recovery: The perceptual control theory approach. *Clinical Psychology Review*, *31*(2), 249-259.

IAPT, Improving Access to Psychological Therapies (2011). National Curriculum for High Intensity Cognitive Behavioural Therapy Courses. London: Department of Health.

IAPT, Improving Access to Psychological Therapies (2012). *Psychological well-being practitioners: Best practice guide.* London: Department of Health.

Irish, L. A., Kline, C. E., Gunn, H. E., Buysse, D. J., & Hall, M. H. (2015). The role of sleep hygiene in promoting public health: A review of empirical evidence. *Sleep medicine reviews*, *22*, 23-36.

Ishak, W. W., Bagot, K., Thomas, S., Magakian, N., Bedwani, D., Larson, D., Brownstein, A., & Zaky, C. (2012). Quality of life in patients suffering from insomnia. *Innovations in clinical neuroscience*, *9*(10), 13.

Kelly, R. E., Mansell, W., & Wood, A. M. (2011). Goal conflict and ambivalence interact to predict depression. *Personality and Individual Differences*, *50*(4), 531-534.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The phq‐9. *Journal of general internal medicine*, *16*(9), 606-613.

Lommen, M. J., Grey, N., Clark, D. M., Wild, J., Stott, R., & Ehlers, A. (2016). Sleep and treatment outcome in posttraumatic stress disorder: results from an effectiveness study. *Depression and anxiety*, *33*(7), 575-583.

Mansell, W. (2005). Control theory and psychopathology: An integrative approach. *Psychology and Psychotherapy: Theory, Research and Practice*, *78*(2), 141-178.

Mansell, W., Carey, T. A., & Tai, S. (2012). *A transdiagnostic approach to CBT using method of levels therapy: Distinctive features*. Routledge.

Mason, E. C., & Harvey, A. G. (2014). Insomnia before and after treatment for anxiety and depression. *Journal of affective disorders*, *168*, 415-421.

Mastin, D. F., Bryson, J., & Corwyn, R. (2006). Assessment of sleep hygiene using the Sleep Hygiene Index. *Journal of behavioral medicine*, *29*(3), 223-227.

McGowan, S. K., Espejo, E. P., Balliett, N., & Werdowatz, E. A. (2016). The Effects of Transdiagnostic Group CBT for Anxiety on Insomnia Symptoms. *Cognitive behaviour therapy*, *45*(2), 163-175.

Morgenthaler, T., Kramer, M., Alessi, C., Friedman, L., Boehlecke, B., Brown, T., Coleman, J., Kapur, V., Lee-Chiong, T., Owens, J., & Pancer, J. (2006). Practice parameters for the psychological and behavioral treatment of insomnia: an update. An American Academy of Sleep Medicine report. *Sleep* 29 (11), 1415-1419.

Morin, C. M. (1993). *Insomnia: Psychological assessment and management*. New York: Guilford.

Morin, C. M., Blais, F., & Savard, J. (2002). Are changes in beliefs and attitudes about sleep related to sleep improvements in the treatment of insomnia?. *Behaviour Research and Therapy*, *40*(7), 741-752.

Morin, C. M., Bootzin, R. R., Buysse, D. J., Edinger, J. D., Espie, C. A., & Lichstein, K. L. (2006a). Psychological and behavioral treatment of insomnia: update of the recent evidence (1998–2004). *Sleep*, *29*(11), 1398-1414.

Morin, C. M., LeBlanc, M., Daley, M., Gregoire, J. P., & Merette, C. (2006b). Epidemiology of insomnia: prevalence, self-help treatments, consultations, and determinants of help-seeking behaviors. *Sleep medicine*, *7*(2), 123-130.

Morris, L., & Mansell, W. (2018). A systematic review of the relationship between rigidity/flexibility and transdiagnostic cognitive and behavioral processes that maintain psychopathology. *Journal of Experimental Psychopathology*, *9*(3), 2043808718779431.

Mullington, J. M., Haack, M., Toth, M., Serrador, J. M., & Meier-Ewert, H. K. (2009). Cardiovascular, inflammatory, and metabolic consequences of sleep deprivation. *Progress in cardiovascular diseases*, *51*(4), 294-302.

National Institute for Health and Care Excellence (NICE) (2011). *Common mental health disorders: identification and pathways to care (Clinical guideline CG123*]. Leicester: The British Psychological Society and The Royal College of Psychiatrists.

National Institute for Health and Care Excellence (NICE) (2015). *Insomnia Management*. Published online: https://cks.nice.org.uk/insomnia

National Institutes of Health. (2005). National Institutes of Health State of the Science Conference statement on manifestations and management of chronic insomnia in adults, June 13-15, 2005. *Sleep*, *28*, 1049-1057.

Ohayon, M. M. (2002). Epidemiology of insomnia: what we know and what we still need to learn. *Sleep medicine reviews*, *6*(2), 97-111.

Powers, W. T. (1972). An experiment with levels. In: Powers, W.T. (1992*). Living Control Systems II: Selected Papers of William T. Powers. The Control Systems Group*. Kentucky: Gravel Switch.

Powers, W. T. (1973).*Behaviour: the Control of Perception*. New Canaan: Benchmark Publications.

Powers, W. T. (1990). Control theory: a model of organisms. *System Dynamics Review*, *6*(1), 1-20.

Powers, W. T. (1998). *Making sense of behavior*. New Canaan, CT: Benchmark.

Powers, W. T. (2005*). Behavior: The control of perception (2nd ed.).* New Canaan: Benchmark Publications.

Powers, W. T. (2008). *Living control systems III: The fact of control.* Escondido: Benchmark Publications.

Powers, W. T., Clark, R. K., & Farland, R. M. (1960a). A general feedback theory of human behavior: Part I. *Perceptual and motor skills*, *11*(1), 71-88.

Powers, W. T., Clark, R. K., & McFarland, R. L. (1960b). A general feedback theory of human behavior: Part II. *Perceptual and Motor Skills*, *11*(3), 309-323.

Richards, D., Chellingsworth, M., Hope, R., Turpin, G., Whyte, M. (2010). *Reach Out National Programme Supervisor Materials to Support the Delivery of Training for Psychological Wellbeing Practitioners Delivering Low Intensity Interventions*. London: Rethink. Published online: http://www.babcp.com/files/Accreditation/PWP/IAPT-PWP-Supervision-Manual-Reach-Out.pdf.

Richards, D., Farrand, P., Chellingsworth, M. (2011). *National curriculum for the education of psychological wellbeing practitioners (PWPs).* Lancashire: British Association for Behavioural & Cognitive Psychotherapies. Published online: <http://www.babcp.com/files/Accreditation/PWP/IAPT-PWP-National-Curriculum.pdf>

Riemann, D., & Voderholzer, U. (2003). Primary insomnia: a risk factor to develop depression?. *Journal of affective disorders*, *76*(1), 255-259.

Roth, T. (2007). Insomnia: definition, prevalence, etiology, and consequences. *Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine*, *3*(5 Suppl), S7.

Schutte-Rodin, S., Broch, L., Buysse, D., Dorsey, C., & Sateia, M. (2008). Clinical guideline for the evaluation and management of chronic insomnia in adults. *Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine*, *4*(5), 487.

Spielman, A. J., Caruso, L. S., & Glovinsky, P. B. (1987). A behavioral perspective on insomnia treatment. *Psychiatric Clinics*, *10*(4), 541-553.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*, *166*(10), 1092-1097.

Stepanski, E. J., & Wyatt, J. K. (2003). Use of sleep hygiene in the treatment of insomnia. *Sleep medicine reviews*, *7*(3), 215-225.

Tai, S. J. (2009). Using perceptual control theory and the method of levels to work with people who experience psychosis. *The Cognitive Behaviour Therapist*, *2*(3), 227-242.

Tai, S., & Turkington, D. (2009). The evolution of cognitive behavior therapy for schizophrenia: current practice and recent developments. *Schizophrenia bulletin*, *35*(5), 865-873.

van Straten, A. and Cuijpers, P. (2009) Self-help therapy for insomnia: a meta-analysis. *Sleep Medicine Reviews, 13*(1), 61-71.

The Sleep Council (2016) *The Good-Night Guide: 7 practical steps to good night’s sleep.* The sleep council [online] Available at: < <https://www.sleepcouncil.org.uk/wp-content/uploads/2016/11/The-Good-Night-Guide-web-version.pdf>> (Accessed 11th September 2018).

Vincent, N., Sande, G., Read, C., & Giannuzzi, T. (2004). Sleep locus of control: Report on a new scale. *Behavioral Sleep Medicine*, *2*(2), 79-93.

Voinescu, B. I., & Szentagotai-Tatar, A. (2015). Sleep hygiene awareness: its relation to sleep quality and diurnal preference. *Journal of molecular psychiatry*, *3*(1), 1.

Wells, M. E., & Vaughn, B. V. (2012). Poor sleep challenging the health of a nation. *The Neurodiagnostic Journal*, *52*(3), 233-249.

Woodward, E., Hackmann, A., Wild, J., Grey, N., Clark, D. M., & Ehlers, A. (2017). Effects of psychotherapies for posttraumatic stress disorder on sleep disturbances: Results from a randomized clinical trial. *Behaviour research and therapy*, *97*, 75-85.