International Journal of Sport and Exercise Psychology ›
Volume 20, 2022 - Issue 6

Open access

4,511 Views | 0 CrossRef citations to date | 8 Altmetric

Europe

Applied imagery for motivation: a person-centred model

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Pages 1556-1575 | Received 08 Oct 2020, Accepted 09 Sep 2021, Published online: 11 Oct 2021

Download citation https://doi.org/10.1080/1612197X.2021.1987959

ABSTRACT

Motor imagery when coupled with motivational and cognitive factors has been shown to enhance multiple aspects of sports performance. This paper reviews existing imagery approaches, and proposes a method based on applied applications, intended to increase short and long-term motivation. Behavioural change is achieved by primarily using motivational interviewing (MI), then functional imagery training (FIT), which has been adapted into the applied imagery for motivation (AIM) model. AIM starts with an initial interview using MI, then has three imagery phases: macro imagery (beliefs, values and purposeful long-term goal), meso-imagery (mentally contrasting between current and future-self to evoke change), and micro imagery (planning for immediate action). We explain the use of these three stages which allow athletes to link everyday cues with imagery activation and immediate implementation action plans. We provide practitioners with a comprehensive applied guide to using AIM for performance, merging theory-driven established cognitive and motivational imagery approaches into structured practise.

In this article

imagery has repeatedly been shown to improve short term motivation and performance in sport. Techniques that focus on employing cognitive motor and/or motivational imagery in addition to practice, are best suited for performance increments and boosting emotional factors such as confidence (Simonsmeier et al., 2020). In working with psychologists, coaches, and athletes, and leaning on the mediational use of imagery (see Short et al., 2005) there are two main concerns of interest regarding imagery use: how are increments maintained post intervention; and how is negative imagery refocused? Current methods for training cognitive and motivational imagery are well grounded in theory and practice, but there is limited guidance for methods that focus on sustained change post intervention. We acknowledge that imagery training can conjure negative thoughts and there is limited work that examines strategies to refocus thoughts in sports performance.

In this paper, we will review current approaches to the use of imagery in sport, and propose a person-centred model called applied imagery for motivation (AIM) for practitioners to follow, and athletes to experience. We consider the amalgamation of cognitive, motivational and person-centred imagery from theory to practice. Whilst existing motor imagery and other approaches are effective, we propose a hybrid method that is immediately useful for performance, intended to maintain performance and motivational increments over time. The model has been developed over the last few years and preliminary evaluations of its use have been published recently in professional (Rhodes et al., 2018, 2020) and recreational adult sport (Rhodes et al., 2021), and healthcare (Turner et al., 2020). We bring this data together in the concluding sections, to provide directions for future research with the aspiration for AIM to be used by any interdisciplinary practitioner who supports an athlete.

Imagery approaches and theories

Imagery approaches in sport including physical, environmental, task, timing, learning, emotion, perspective training (PETTLEP; Holmes & Collins, 2001) and layered stimulus-response training (LSRT; Williams et al., 2013) are effective at managing emotions, enhancing confidence, and increasing performance (Smith & Holmes, 2004). These imagery approaches use multisensory exposure when

tasks.

Tasks including standing in a tray of sand whilst visualising a bunker shot (Smith et al., 2008), keeping imagery diaries (Wakefield & Smith, 2011), and watching technical videos (Pocock et al., 2019) have been shown to enhance sports performance. Performance is often measured using two testing points; baseline and a retest after completion of the intervention (Hossini et al., 2019; Toth et al., 2020). During these timepoints, imagery paired with practice conditions show significant improvements in sport and other domains such as nursing (Wakefield et al., 2020; C. Wright et al., 2008) and music (D. J. Wright et al., 2014). Although motivational and cognitive imagery functions are utilised, there is a lack of research, especially in senior professional sport, that explores what happens to performance in the weeks after the intervention finishes. While the long-term benefits of imagery have been found in youth sport (Jenny et al., 2014), similar approaches seldom yield sustained performance increments at the senior professional level.

In some way, every imagery approach enhances sensory richness through cognitive and motivational factors that adhere to Paivio's (1985) suggestions. Paivio's framework (further developed by Hall et al., 1998) separates imagery factors further into five distinct types; cognitive specific (skill development), cognitive general (CG: technical and tactical strategies, game plans, or routines), motivation specific (MS: goal achievement), motivational general-arousal (MG-A: emotional awareness), and motivation general-mastery (MG-M: self-control, confident and mentally tough). Imagery approaches, for example PETTLEP and LSRT, fulfil all five distinct imagery functions whilst increasing vividness and controllability, through conversations with the practitioner stimulating task and imagery learning (cf. Lang, 1979). However, not all of Paivio's motivational factors are equally vital for optimising performance (Spindler et al., 2019).

Motivation general and specific imagery in the context of Hall et al. (1998) and subsequent approaches (i.e., PETTLEP), focus on directed tasks such as penalty kick success (Ramsey et al., 2010), which do not examine the individual's intrinsic motivation through values, beliefs and purpose. Motivational imagery in this setting is task specific and thus contains a mixture of intrinsic and extrinsic factors (Simonsmeier et al., 2020), such as general performance (scoring) and process goals (learning to place the ball in a specific area, and/or emotional control) but does not explore motivation prior to and beyond the task, such as beliefs, meaning and purpose. Arguably, the MS

behaviour that lasts beyond the task.

Functional imagery training

Functional imagery training (FIT; Rhodes et al., 2018, 2020, 2021; Solbrig et al., 2019) trains effective use of self-elicited, personal motivational imagery, building motivation and self-efficacy to successfully work towards and to achieve intermediate and long-term goals. Detailed interviewing techniques aim to evoke change by first examining values, beliefs and experiences verbally, and then by imagining the key outcomes of this process. The verbal FIT interview sections are based on the fundamentals and "spirit" of motivational interviewing (MI; cf. Miller & Rollnick, 2012); a non-judgemental person-centred, but a directive approach for behaviour change. FIT goes further than MI and integrates imagery through these discussions focused on intrinsic motivation and future purpose. Furthermore, FIT explores challenges and setbacks with the aim of overcoming ambivalence and/or immediate and future obstacles, redirecting imagery towards MS (Paivio, 1985) desired outcomes. In a randomised controlled trial directly comparing FIT and MIs' effectiveness in weight-loss, (Solbrig et al., 2019), participants in the FIT condition lost five times more weight than the MI condition during the trial and went on to lose weight a year post intervention. Solbrig et al. (2019) implemented cues, daily activities such as when boiling a kettle, to retrain negative thoughts that could compromise healthy behaviours, using imagery to focus on future success emotionally underpinned by motivation.

In sport, the same FIT methodology has been implemented for soccer players (Rhodes et al., 2018), using cues which triggers imagery (e.g., lacing up boots), to enhance imagery frequency resulting in athletes enhancing their level of grit, perceiving imagery enhanced performance. Further, to assess performance, Rhodes et al. (2020) investigated penalty kick success by asking professional soccer players to take penalties at baseline, and then randomly separated into one of three groups: FIT with practice, PETTLEP with practice, and a practice control who discussed existing mental skills strategies, who were all supported for only one week. At the end of one week, and again after 15 weeks, participants completed a series of penalty kicks to assess changes from baseline. The findings showed that at week one both the FIT and PETTLEP groups significantly improved whilst there was no change in the control. Furthermore, beyond week 15, all participants returned to show no differences at baseline except the FIT group who maintained improvements made from week one.

emotional states, such as boredom, or a physiological deficit like hunger (Kavanagh et al., 2005). These initial thoughts can be fleeting, but when the deficit they highlight is perceived as strong, or salient enough, desire cognitions permeate into attention, where they are consciously elaborated. Key to this thought elaboration is multisensory mental imagery of attainment and consumption of the craved consumable substance and the immediate reward or pleasure it brings (May et al., 2015). This imagined attainment and consumption are pleasurable at first. If the craving cannot be satisfied, the accompanying imagery provides a vivid comparison between our current state and the desired state, highlighting the discrepancy and making us increasingly aware of it. In this case, the craving becomes aversive (Kavanagh et al., 2005).

According to EI theory, functional desires should operate in a similar way to unwanted cravings. This hypothesis is supported by findings that imagery not only features in cravings for substances like alcohol or chocolate (Kavanagh et al., 2004; May et al., 2012), but it is also present in desires for healthy goals, such as playing hockey (May et al., 2008), alcohol reduction (Robinson et al., 2016), diabetes self-management (Parham et al., 2018), and pro-environmental behaviours (Boomsma et al., 2016). Practising and strengthening imagery is therefore predicted to increase motivation and there is good evidence to support this prediction in relation to motivation for physical activity (Giacobbi Jr et al., 2014).

Knowing that intrusive thoughts when elaborated upon can result in a drop or improvement in motivation, the FIT approach offers the individual the tools to control their imagery and restructure thinking, providing a choice in cognitions. Athletes report spontaneous negative imagery which may affect their performance (Williams & Cumming, 2016), so having a technique that can improve motivation and goal commitment is vital, especially when undertaking challenging tasks that may create unwanted self-talk or imagery, like when attempting an ultra-marathon (Rhodes et al., 2021).

According to Baddeley and Hitch's (2001) Working Memory Model, a stimulus or thought is given attention and when elaborated upon evokes visual imagery (visuo-spatial sketchpad) also activating self-talk as cognitions are rehearsed (phonological loop) and a specific event recalled (episodic buffer). The depth of the experienced thought; multisensory elaboration paired with self-talk, often influences the resultant behaviour. Therefore, if an intrusive, unproductive and unwanted thought that is not aligned to our goals is elaborated upon, it can lead to a negative behaviour, such as

target behaviour to be elicited (Kavanagh et al., 2005; May et al., 2004). Importantly, FIT activates the positive target thought (often the emotion associated with achieving a long-term purposeful goal) periodically during the day through cues which activates imagery and leads to multisensory elaboration. This is only achieved by exploring values, beliefs, emotion and the processes of change that can support motivation towards goal success, which is verbalised by the participant, not directed by the practitioner.

Goal motivation

According to goal motivation theorists (Kruglanski et al., 2002) goals are often organised in a hierarchical manner with smaller lower-order goals cascading from one overarching long-term goal. Therefore, there will often be several lower-order goals that support (and lead to) one higher-order outcome. A setback towards a lower-order goal would be faced with either the individual giving up, thus affecting the higher-order goal, or persevering by adapting a new approach to the task. Using FIT, we see the higher-order goal as the individual's life purpose, such as inspiring their grandchildren, then explore the lower-order goals which add meaning to the process. Acknowledging that when working on long-term purposeful goals, individuals may struggle to use imagery for an abstract target thought, booster sessions, generally 15 minutes long (Turner et al., 2020), provide imagery support which enhances goal motivation during challenging tasks and promotes mental skill mastery (Rhodes et al., 2021). Sustained behaviour change towards, for example, a healthy lifestyle is a process of self-discovery through a series of supported changes and engaging in tasks that have tangible outcomes. By teaching individuals to learn and apply imagery methods effectively, motivation is harnessed by contrasting between current and future-self. Carver and Scheier (2000) hypothesise that any shift in a long-term goal directly impacts ideal self and results in a personal self-reflected recalibration. This recalibration has a functional influence upon how goals are set as it shuffles personal objectives and motivations.

The usefulness of goal setting is entirely dependent on what goals are set, especially the difficulty, duration, importance, and specificity of goals (Swann et al., 2020). Even the time of the sporting season can have an impact on the athlete's motivation and effort (Holliday et al., 2008), so goal setting should be structurally and systematically planned. What is agreed upon is that learning goals are best suited to enhance sports performance. Hardy and Jones (1994) proposed process (e.g.,

meso-imagery.

Goal-focused motivational meso-imagery, developed from MS imagery, has been used in many settings and in a variety of ways through scripts (Smith et al., 2001) to general imagery delivery through sequences. Oettingen (2012), used the acronym WOOP to cover four MS imagery sequences: wish, outcome, obstacle, and plan. Based on the premise of mental contrasting, individuals set challenging goals (wish); visualise the goal and how it will feel when successful (outcome); locate personal factors that will prevent achievement, such as poor time management (obstacle); then set out a timely realistic schedule (plan). Importantly, this process of mental contrasting creates an autonomous process centred on implementation intentions. WOOP goals, therefore, follow a methodical process for practitioners and participants to follow, based on locating a future-self and identifying personal weaknesses. In a randomised comparison study (Saddawi-Konefka et al., 2017) involving anaesthesiology residents who were studying for an exam, a standardised self-directed goal-setting group was compared to a WOOP goal-setting group. Findings showed that WOOP goal setting increased the hours studying in comparison to the standard group. However, in that study there was no formal imagery training methodologies that aimed to enhance vividness and controllability, students used existing methods to mentally contrast and plan.

Imagery, specifically the FIT approach: MI plus imagery training, is reliant on amalgamating cognitive and person-centred psychology to focus on specific goals and realign thinking by adapting behavioural cues. Paivio's (1985) model forms the basis for imagery considerations, and FIT goes further by merging mental contrasting (Oettingen, 2012) with differing motivational goals that aim to recalibrate imagery sometimes due to intrusive thoughts. Athletes often report intrusive negative imagery which may affect their performance (Williams & Cumming, 2016). AIM is a person-centred model that shifts unwanted thinking towards performance consistency, resulting in the athlete having a methodology to reset thinking based on activating motivational goal imagery.

Position statement

We recognise the potential benefits and drawbacks when using imagery. It can enhance skills, manage emotions, and increase performance (Rhodes et al., 2020; Weinberg & Gould, 2018), but on

discussions increase imagery ability and frequency, linking imagery with neural activity, known as functional equivalence. Functional equivalence has been historically empirically investigated through brain scans (Jeannerod, 1994; Jeannerod & Decety, 1995) with recent studies coming to similar conclusions (Ibáñez-Marcelo et al., 2019); that imagined tasks activate corresponding brain regions identical to when performing the task itself. Therefore, progress made using formal imagery training is clearly evident, so our aim is to add value using motivational imagery to prolong progressions made through short-term interventions.

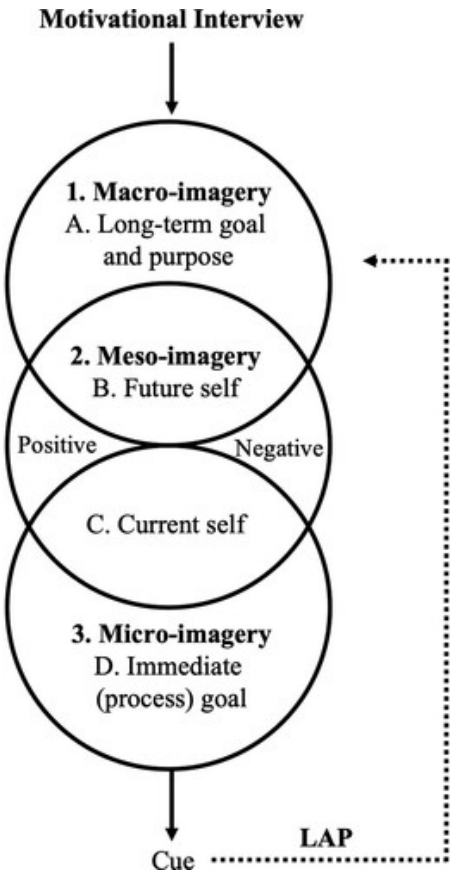
The approach uses MI (Rollnick et al., 2019) paired with imagery as a compound mental skill through multisensory exposure and utilises factors such as self-talk, mindfulness, goal setting, and feedback to direct effort and motivation. These psychological skills and strategies add to the overall application and improvement of imagery. Therefore, by controlling imagery, participants report that they can realign their self-talk from negative to positive (Rhodes et al., 2021), and likewise, learning to focus on positive personal affirmations can add to the vividness of images. We have adapted our motivational methods from Rogers (1942, 1951, 1980) person-centred counselling, MI, and FIT, for interdisciplinary practitioners who support athletes, to use as a template for imagery deployment. The approach is not restricted by timeframes due to the exploration of personal goals, and the depth required to explore intrinsic factors whilst the individual learns to refine imagery skills. However, rough guidance on timescales is provided for each element of the model. The AIM model has been developed for practitioners as a structured process that follows imagery stages and levels of goals with the intention to enhance motivation, long-term behavioural change and promote performance consistency.

The AIM model

AIM is person-centred imagery, integrating motivational goals in a linear (non-scripted) sequence with the intention to add sensory richness, lucidity and the sharpness of an image. Initial research specifically using AIM has shown sustained performance increments in soccer (Rhodes et al., 2020) and when undertaking an ultra-marathon (Rhodes et al., 2021). AIM starts with an initial motivational

sporting community. The end result is an imagery process which is implemented by the athlete daily through a sequence of self-activated cues.

Figure 1. After an initial motivational interview, imagery is trained. The circles represent the three stages of imagery and the four levels (A–D) represent the order at which goals are explored, including positive and negative outcomes. Finally, a motivational cue is developed, which links imagery activation to implementation. The dotted line represents the independent application for the athlete who reinforces practice through LAP.



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The AIM approach uses imagery as a hierarchical process, similar to that of goals (Kruglanski et al., 2002) and thus explores each level using imagery. After an initial MI constructed interview, imagery is formally introduced by exploring the four goal levels through three multisensory stages lasting roughly one hour per stage. During each of the three imagery stages, detail is cultivated through

Micro-imagery is the final stage in which an immediate process goal (see Filby et al., 1999) is planned and shaped using imagery for instant action with the aim to refine current performance. The resultant behaviour is implemented through a cue that is specific to the athlete (e.g., spinning a tennis racket), and the athlete is trained to revisit the sequence after they utilise their cue through the acronym LAP; locate cue, activate imagery, perform (Rhodes et al., 2020). Through repeating the goal sequence, LAP realigns thought elaboration (EI theory) and can be applied to a series of settings to impede intrusive negative images. The cue, once imagery is taught, is the activating event that starts the chain reaction of imagery deployment. Therefore, AIM is the sequence for the practitioner to teach imagery and develop motivation, and LAP is the eventual quick (<30 seconds) application of the athlete.

Motivational interview

At all times, the spirit and processes of MI are followed (Rollnick et al., 2019). The initial procedure of the interview is used to develop a connection with the athlete and gain an understanding of their background whilst (process one of MI) engaging in conversation (Miller & Rollnick, 2012). Life story interviews (cf. Atkinson, 1998; King et al., 2018) are a method that can be underpinned through research, and as a way for the athlete to unearth profound meaning and examine motivation from all areas of life. Therefore, the first step is to engage the athlete in conversation. This method puts the athlete in control, with the practitioner learning from the athlete. At critical points during the conversation, the practitioner uses their series of MI skills, such as affirmations, reflections and summaries, to explore the athletes' values, beliefs and experiences, which focus on the origin of motivation and rationale for selecting a long-term goal and personal purpose. While a long-term goal may be to win an Olympic medal, the purpose is beyond the goal and is often connected to community or global progress such as increasing sporting participation (see Ratner et al., 2019). Therefore, using the MI process, the aim of the motivational interview when using AIM is to engage in conversation and focus (process two of MI) on a specific personal long-term goal that has the potential to benefit others. In this period there is no formal imagery training, as this is an opportunity for the practitioner to learn and develop rapport and for the athlete to share goals, which leads to connectedness and empathy.

to support development if the athlete so wishes. At these points, when mental skills are discussed, athletes are asked if they use visualisation or imagery. In our experience, individuals then give examples of imagery use which we ask their permission to measure and if they would like to refine their existing method. For those who do not use imagery and do not list examples, there is further review about how athletes perceive and plan for performance. Ely et al. (2020) suggest that applied practitioners should identify athletes existing mental skills and consider ways to weave skills together, including assessing individuals' imagery ability.

To measure imagery in adults, we primarily suggest using two imagery scales, one for sensory exploration (The Plymouth Sensory Imagery Questionnaire (Psi-Q); Andrade et al., 2014) and one for sporting ability (The Sport Imagery Ability Questionnaire (SIAQ); Williams & Cumming, 2011). These scales are recommended to locate current ability and to focus attention on specific sensory strengths and areas of improvement. As motivation is examined during the interview a further scale could be added in latter stages of AIM to assess motivation, such as the Motivational Imagery Ability Measure for Sport (MIAMS; Gregg & Hall, 2006), which would form the basis for discussion about how, for example, athletes use MG-A imagery. Questionnaires are seen to be reductionist and often not advisable when using a person-centred approach, however, the questionnaires are used for learning more so than to track change. The Psi-Q locates the individual's sensory sensitivity, whilst the SAIQ is specific to a series of sporting factors such as tactical strategies, technical skills and emotions. These measures become the baseline scores that indicate how the individual is using cognitive methods and is a way for practitioners to check progress when working specifically to train a sense, such as auditory imagery. Furthermore, when the target goal is to refine a sports-specific skill, such as the precision of the ball in an opponent's box during a tennis serve, performance feedback can be tracked based on goal achievement (Martin et al., 1999). As a note of interest, if individuals score zero throughout, they may have aphantasia (cf. Dawes et al., 2020). More likely, it is common for athletes to achieve low scores on specific senses (Hall et al., 1998), such as olfactory imagery, which is a factor of individual sensitivity that is expected to change due to training.

Macro-imagery

At this point, the personal long-term goal and its connected purpose (including the rationale for goal selection) have been discussed. It must be apparent at the point of entering the macro-imagery stage

goals and formulating role clarity, elite athletes become ruthless and disciplined in goal pursuit (Hardy et al., 2017), enhancing passionate obsession which boosts motivation. Furthermore, narrative analyses on world-class athletes have shown that this process of long-term goal setting coupled with connections with others builds social and personal identity (Morgan et al., 2015). Where possible we support harmonious passion through supporting intrinsic motivation (see Vallerand et al., 2003), but accept that there will be times when motivational imagery is an extrinsic emotive obsession to learn and achieve.

To direct motivational imagery, LSRT (Williams et al., 2013) is a method used to train imagery by increasing vividness and controllability by adding senses periodically to develop the detail of elaboration. To achieve this in macro-imagery, individuals are asked to examine the long-term goal (stimulus) with layers (e.g., senses and scenarios) added to emphasise meaning (Cumming & Williams, 2013). For example, if the long-term goal is to win an Olympic medal because it will inspire others, stimulus propositions would first include the location, hearing the crowd and/or national anthem, focus on teammates and support team, and the temperature and weather (Nordin & Cumming, 2008). AIM goes further than LSRT by exploring the purpose of the goal: how do you see your goal benefitting others? This fantasised scenario is then elaborated upon through sensory layering. In each case, when providing a detailed image, a response proposition is generated, such as a change in heart rate, muscular tension, and linked with emotions. With each additional layer, as the image is produced, the participant reflects on the experience of achieving their higher connected purpose, and verbally describes the content, and importantly its meaning (Cumming & Williams, 2013).

The process of the long-term goal, having a connected purpose, and other future events are discussed, and a future-self reflected. The future-self is centred upon specific events and idealised ability. These fantasised events lead up to long-term goal accomplishment and, although realistic predictions should be encouraged, participants are permitted to use imagery to imagine outcomes (see Oettingen et al., 2001). For example, to qualify for the Olympic Games athletes may discuss competing in a world-cup event, how they perform, and where they place. This prediction is affirmed by the practitioner and discussed using LSRT to support self-efficacy.

Meso-imagery

This should be skill and/or emotion based (Ramsey et al., 2010). Examples of technical struggles could be learning to refine a pass in soccer or knee position when sprinting, and emotion based may be to manage anxiety or confidence when under pressure. Once these personal struggles are expressed, athletes initially discuss future events whereby nothing has changed. Again, these events are explored through LSRT resulting in negative future imagery. Athletes may discuss how disappointed in themselves they would feel if they made no progress, remaining, for example, anxious when under pressure. Research (Renner et al., 2019; Solbrig et al., 2018) has shown that negative imagery can be used as a motivational amplifier when compared to imagining positive outcomes, such as goal achievement.

The mental contrasting protocol (see Saddawi-Konefka et al., 2017) is reflected through positive imagery, whereby individuals consider how their current self would need to adapt when an obstacle arises, and how overcoming the obstacle will support goal achievement. This process of verbalising change develops solutions which intrinsically unfolds. For example, an athlete may consider improvements in technique can be achieved when they manage emotions. Once negative and positive imagery has been effectively deployed, we have found (Rhodes et al., 2018, 2020) that athletes produce a series of solutions such as scanning the field of play before potentially receiving a pass to better manage pressure. Potential imagined solutions to struggles and areas of development are mutually discussed in vivid detail with the practitioner asking probing questions, such as “how can the skill be further refined?”, which varies the complexity of the athletes imagined experience (Murphy et al., 2008). Once the solution/area for improvement is exhausted by the athlete, each solution is rated on the importance to change (Rollnick et al., 2019) from 0 (not important) to 10 (extremely important). All scores are discussed to rationalise responses and the scores with the highest ratings lead to immediate process goals.

Micro-imagery

The final imagery stage is to consider the current self and set an immediate goal. Imagery in this stage is an amalgamation of performance profiling (Butler & Hardy, 1992; for a review see, Weston et al., 2013) and task-focused imagery like PETTLEP. While PETTLEP requires the individual to experience each of the seven components in a directive manor, micro-imagery’s focus is on perceptions of current self and an immediate self-administered goal. PETTLEP research (e.g., Ramsey et al., 2010) is

cross accuracy. The athlete then leads the experience by verbalising the imagined task, with the practitioner prompting multisensory imagery when necessary. The athlete may say: "I can feel the soft grass, moving down the wing, looking up before the ball is crossed and how my weight is distributed, the feel of the ball as it makes contact with my foot, the sound it makes, the curve of the ball as it flies through the air, the header of the attacker as they place it in the goal". The emotive outcome; the feelings of success based on the process is then reflected. After athletes are trained through this procedure, feedback from imagery experience is then measured by asking athletes to rate their confidence to complete independent practice that focuses on the process goal, from 0 (not confident) to 10 (extremely confident), and similar to when measuring importance, all scores are discussed.

The process of using micro-imagery is the end of formal motivational imagery training as it develops a plan of action (process four of MI; Miller & Rollnick, 2012). As with many other imagery training approaches, the next phase is to implement changes through specific tasks (Oettingen et al., 2015). In the case of AIM, athletes decide on their motivational cue which will act as a trigger to activate imagery.

Cues and LAP (locate cue, activate imagery, perform)

Through the four multisensory imagery stages, motivation should be explored across all four goal levels to evoke motivation. If athletes are confident to try independent practice, behavioural cues are then introduced. We have two rationales for using cues. Initially, cues are a method of increasing imagery frequency (Wakefield & Smith, 2009) and associated confidence using mental skills. Secondly, cues commence the formal act of deliberate imagery use with the aim to restructure cognitions and behavioural adaptations (Vealey & Greenleaf, 2006). Cues are selected by athletes which are everyday tasks, such as filling up a water bottle (Rhodes et al., 2018). The acronym LAP, developed through experimental research by Rhodes et al. (2018, 2020, 2021) and is the sequence for applied imagery application which starts implementation intentions. Upon (L) locating the cue, athletes are asked to (A) activate their imagery which follows the same AIM stage cycle; multisensory long-term goal imagery including purpose, mental contrasting of future and current self, and immediate process goal. Finally, the athlete performs (P) by committing to a specific action that is immediately implemented (Knäuper et al., 2009). The athlete is given time to practice LAP with the practitioner

marathon were five times more likely to finish compared to participants who did not. Participants used personally refined self-talk, breathing techniques, and race targets as their cue, reporting an improvement in managing "internal chatter by activating imagery at critical times" helping participants to "focus on success when fatigue and unwanted thoughts tried to take over" (Rhodes et al., 2021, p. 4). Cues can be modified based on the task showing flexibility and adaptive learning from the initial cue, which triggers different imagery for other challenging tasks. Quick 15 minute booster sessions are offered at the discretion of the athlete (often monthly), in which LAP is reviewed, and strategies refined, supporting self-efficacy. During these sessions athletes are asked to modify cues once they are comfortable using imagery outside of originally discussed tasks, then refine cues during sports performance. This adaptation process from formal imagery use during practice, to applied performance imagery (Cumming & Williams, 2013), enables the athlete to learn to locate performance cues and control thinking. For example, tennis players could have started using a drink bottle as a cue that activated imagery before a task. Players could then adapt their cue during performance scenarios, often noticing that they slap their leg after poor technical execution culminating in negative self-talk. This has the potential to produce negative imagery and behaviour, which if left to manifest could exacerbate into diminished performance. This negative cue (e.g., leg slap), becomes the cue to activate imagery through focusing on; the long-term goal meaning (brief ≈5 seconds), mental comparison (≈5 seconds), and an immediate controllable process goal (≈5 seconds). Once the process goal is selected and imagined we recommend the athlete commits to the action, ending the routine with a trigger behaviour such as a spin of the tennis racket. If the athlete does not reach a specific committed process goal, and micro-imagery is not activated, we recommend a single centring breath which is effective in applied situations (Orlick, 2015), which can decrease stress and allow for imagery to be activated.

Naturally, positive cues may be used, such as positive self-talk (Van Raalte et al., 2016), breathing techniques (Pineschi & Di Pietro, 2013), energising music (Karageorghis & Terry, 2012), etc, which adds value to personal refinement of the AIM model. The LAP process focuses attention through personal cues with the potential to thwart the cycle of negative intrusive thought rehearsal and elaboration (Andrade et al., 2012; Kavanagh et al., 2005). The LAP process is how the athlete/user

model focused on self-directed unique goals. Functionally, the practitioner supports motivation when using AIM, then transfers ownership of its application to the athlete who uses LAP. To achieve this, motivation is evoked through conversations and collaborative discovery by training positive multisensory imagery activated through cues, followed by implementation intentions. For behaviour to be changed and sustained, individuals must recognise their own responsibility for actions and goals. This intrinsic responsibility is amplified by the practitioner who supports self-efficacy even if the learning and change is small, recognising that every action indicates positive progress.

The purpose of AIM is for the practitioner to have a replicable model that is effective when working with athletes. However, there must be flexibility when delivering person-centred approaches due to imagery ability, goals, and the direction that conversations take.

Our role as psychologists or practitioners who use AIM is not to enhance performance, purely support imagery application and motivation through neutrality (Miller & Rollnick, 2012), which should lead to technical and tactical development (including creativity and self-evaluations), and psychological management (e.g., self-confidence and emotions). For the athlete, the main initial outcome is to apply LAP. By applying bespoke imagery, the consequential outcome is to maintain short-term performance increments over a longer period of time. In partnership, imagery is then refined from the training ground to competition, as the practitioner and athlete learn unique methods that work best, adding additional mental skills to activate imagery, such as positive self-talk, which then activates imagery.

Conclusion and future directions

Clearly, many psychologists (coaches, physiotherapists, counsellors, etc.) are using a variety of imagery models and mental skill approaches (Simonsmeier et al., 2020), but these are often a minimal criterion for deployment and may not be delivered as a compound mental skill for long-term acquisition. The AIM model builds on other applied imagery approaches using a structured guide that integrates cues to elaborate on desired outcomes leading towards proactive behaviours. To reach this point the athlete's motivation must be fully explored, goals and purpose discussed, imagery

psychologists/practitioners.

In partnership with several institutions, there are ongoing FIT projects working in and outside sport (e.g., Shuai et al., 2021), in domains such as health, education, business and the military, collectively using FIT and the AIM model with the focus on positive sustained behaviour change. Furthermore, the FIT programme is continuing to develop resources (similar to that of MI) to support the training of practitioners from a wide variety of applied settings, ensuring high fidelity levels through industry, including offering free training for early career researchers where possible. As imagery is personal, individuals (and practitioners) will be at different levels of ability (Hall et al., 1998), which creates discussion through diversity. This discussion is important as models of imagery use are steeped in research but must be straightforward for the athlete/participant to apply.

The AIM model has been primarily designed for professional sport using feedback from psychologists, coaches and importantly athletes. However, future research using AIM in youth sport would be of significant benefit, but there are obstacles as individuals may struggle to recognise, verbalise, and imagine their higher purpose at a young age. Mental skills programmes must become a priority in youth sport, and AIM would be suitable if there is sufficient time to connect and discuss goals with young athletes, as it focuses on intrinsic motivation and task mastery, and can be utilised in other areas of an athletes life such as with school work. Furthermore, longitudinal studies operating over multiple seasons will give a better indication of lasting effects and the benefits of periodic boosters, including optimal delivery frequency. Further research will enhance the application and understanding of AIM with the ultimate realistic objective of better cognitive and behavioural control through self-administered and refined imagery that supports physical and psychological mastery.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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International Journal of Sport and Exercise Psychology

Published online: 13 Oct 2021

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