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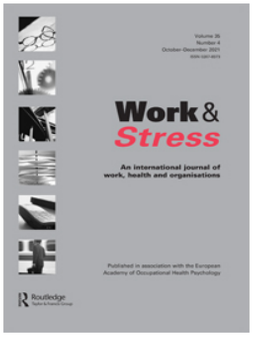

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Understanding the outcomes of training to improve employee mental health: A novel framework for training transfer and effectiveness evaluation

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ABSTRACT

In this paper, we present the Integrated Training Transfer and Effectiveness Model (ITTEM), a dynamic model integrating dominant training transfer and training effectiveness models that can be used to evaluate whether mental health and wellbeing training interventions are transferred to the workplace and result in changes in emotions, cognitions and behaviours post-training. Through the integration of training transfer and training effectiveness literatures, the ITTEM aims to further our understanding of how we may enhance the effectiveness of training through optimising training transfer. We employ realist evaluation as our theoretical framework and argue that developing our understanding of what works for whom in which circumstances will enable us to improve how we design, implement, and evaluate training. We propose that pre- and post-training contextual factors influence the extent to which training mechanisms are triggered and bring about intended outcomes, in terms of emotions, cognitions, behaviours and improved employee mental health and wellbeing. The ITTEM can be used to develop our understanding of how and when training succeeds or fails. The ITTEM provides valuable insights in to how organisations may design future training to maximise the impact of transfer thus achieving the aims of protecting and promoting mental health and wellbeing.

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Training transfer; training effectiveness; realist evaluation; open skills training; training evaluation; mental health

In Occupational Health Psychology, training interventions that aim to equip employees with the skills and knowledge to respond to adverse working conditions to protect and promote mental health and wellbeing are dominant (Richardson & Rothstein, 2008). The randomised, controlled trial is advocated as the highest level of evidence when evaluating such interventions (Tan et al., 2014), however, simply evaluating changes above and beyond any changes in a control group is insufficient to determine whether any changes can be explained by the training or by confounding factors, i.e. internal validity is low (Nielsen & Miraglia, 2017). Training aimed at protecting and promoting employee mental health and wellbeing can be termed open skills training (Yelon & Ford, 1999);

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trainees are required to appraise the situations they find themselves in post-training and modify their emotions, cognitions and behaviours to manage their mental health and wellbeing. Most meta-analyses of mental health and wellbeing training interventions only find small, if any, positive effects (Dreison et al., 2018; Martin et al., 2009; Richardson & Rothstein, 2008). The lack of knowledge of how mental health and wellbeing interventions are transferred to the workplace, learned skills and knowledge applied and maintained over time, is a significant gap in our knowledge, which needs addressing. We argue that to understand how training works, we need to understand how the training process influences the ability of training to successfully change employees' emotions, cognitions and behaviours and the contexts that support them applying newly learned skills and knowledge. In the present paper, we present the Integrated Training Transfer and Effectiveness Model (ITTEM) as a novel framework that may inspire new ways of evaluating the effectiveness of training interventions to protect and promote mental health and wellbeing at work. We hope the ITTEM will spark debate on how to design future evaluation studies of mental health and wellbeing training to understand whether training is transferred to the workplace and lead to sustainable effects.

Evaluating how training interventions work

In an effort to optimise our understanding of how training works, Ford et al. (2018) called for three developments in training evaluation research. First, we need to consider training transfer, i.e. the extent to which skills and knowledge learned during training are generalised and translated into changes to emotions, cognitions, and behaviours that are maintained and retained over time (Baldwin & Ford, 1988). Understanding training transfer is important because it has the potential to help us develop training methods and supportive interventions to optimise the effectiveness of training in the longer term (Volet, 2013). Upon inspection of the literature on the characteristics and processes of mental health and wellbeing training, we identified only eight studies. We found that mental health and wellbeing training focused on the characteristics of the training itself, e.g. the use of materials during the training period (e.g. Carolan et al., 2017b; Hasson et al., 2010), training dose delivered and dose received (Page & Vella-Brodrick, 2013; Vuori et al., 2012), trainers' compliance with training materials (Millear et al., 2008), or satisfaction with training (Millear et al., 2008; Vuori et al., 2012). No studies focused explicitly on training transfer. This gap calls for evaluations of what happens *after* the training has been completed and the trainee returns to the workplace.

Second, Kraiger et al. (1993) distinguished between training evaluation, i.e. whether trainees achieve learning outcomes, and training effectiveness, i.e. whether training achieves its intended outcomes. Most mental health and wellbeing training evaluation focuses on mental health and wellbeing outcomes, i.e. effectiveness (Dreison et al., 2006; Martin et al., 2009; Richardson & Rothstein, 2008), thus failing to consider whether trainees achieve learning outcomes. Learning may be an important precursor to changes in mental health and wellbeing outcomes. To incorporate multiple levels of training outcomes, we use the Kirkpatrick training evaluation model (Kirkpatrick & Kirkpatrick, 2016). The Kirkpatrick training effectiveness model (suggests that training outcomes should be studied at four levels: reactions (how trainees feel about training), learning (whether trainees learn anything), behaviour (whether trainees change their

behaviours post-training) and results (whether training achieves its objectives). The first three levels correspond with Kraiger et al.'s (1993) training evaluation whereas the fourth level corresponds with training effectiveness. For the purpose of this paper, we use the term training effectiveness to reflect all four levels.

Third, the traditional study design to evaluate mental health and wellbeing training in the workplace is the before and after design, ideally employing randomisation where participants are randomly assigned into two groups and changes in mental health and wellbeing are observed comparing the intervention with the control group (Tan et al., 2014). Many of these studies have a short follow-up, often as little as three months (Virgili, 2015). Blume et al. (2019) introduced the Dynamic Transfer Model (DTM) and suggested that training transfer relies on a dynamic interaction between the context, the individual and the training itself, and, therefore, training transfer evolves over time. According to this model, we need longitudinal studies with longer follow-ups to understand the dynamic nature of how learning is transferred to the workplace, evolves over time and translates into changes in emotions, cognitions, and behaviours (Ford et al., 2018).

In this paper, we present the Integrated Training Transfer and Effectiveness Model (ITTEM) as a novel framework. The ITTEM integrates existing training transfer and effectiveness models, namely Baldwin and Ford's (1988) original Transfer of Training Model, the Dynamic Transfer Model (DTM; Blume et al., 2019) and Kirkpatrick's (Kirkpatrick & Kirkpatrick, 2016) Training Effectiveness Model, and proposes a way forward for understanding the mechanisms that make training work and the contextual factors supporting training transfer and effectiveness.

Realist evaluation as the underlying framework

As mentioned above, training transfer is an unknown phenomenon in mental health and wellbeing training. A challenge in the mental health and wellbeing training literature is that trainees are seen as passive learners. It assumed that if trained workers are satisfied with training and they have attended the training and engaged with training material then they will change emotions, cognitions, and behaviours post-training (e.g. Hasson et al., 2010; Vuori et al., 2012).

Realist evaluation (Pawson, 2013) may offer a suitable underpinning theory for the ITTEM as it suggests intervention outcomes are the result of people's reasonings and behaviours, i.e. it is what people *do* that makes the intervention work (Pawson, 2013). Training relies on individuals making decisions on how to change post-training (Yelon & Ford, 1999). Realist evaluation seeks to answer two key questions: "What makes the intervention work?", i.e. what are the working mechanisms of the intervention and "For whom in which circumstances does the intervention work?", i.e. what are the contextual factors that may influence where the working mechanisms of the interventions are "triggered." These two key questions are answered through the test of Context, Mechanism, Outcomes (CMO) configurations (Pawson & Tilley, 1997).

C stands for the contextual barriers and facilitators which influence whether the working mechanisms are triggered (Pawson & Tilley, 1997). According to Macfarlane et al., 2011), context refers to the individual's characteristics (values, attitudes, and norms) and the organisational context (peer support, culture, and climate) that may influence the reasonings and behaviours of people during the intervention.

M stands for the working mechanisms that can explain the outcomes of the intervention, i.e. the working ingredients of the intervention. Mechanisms have been defined as the interpretations, considerations, decisions and behaviours of intervention recipients (Pawson, 2013). Lacouture et al. (2015) argued that mechanisms: (1) may differ over the course of an intervention: (2) are latent and, therefore, may or may not be triggered in a given context; and (3) interact with each other and may be linked in feedback loops.

O stands for Outcomes, i.e. the effects of the intervention (Pawson & Tilley, 1997), in our case the intermediate outcomes, the causal pathways to the final outcomes, e.g. training attendance, learning, transfer, and changes in emotions, cognitions and behaviours and the distal outcomes of mental health and wellbeing.

In the context of mental health and wellbeing training, mechanisms stem from both the training content (e.g. job crafting or mindfulness) and design (methods of delivery), together with the emotions, cognitions and behaviours of trainees post-training. It is the reactions to the content and design components of training that trainees react to and that determine their training transfer (Lacouture et al., 2015). What happens during training is important, but what happens before and after may also impact whether training achieves its intended outcomes (Salas et al., 2012). Hence, the process begins; mechanisms pre-training influence mechanisms during training, which influence intermediate outcomes, such as learning, which, in turn, influence mechanisms post-training, and, ultimately, determine training outcomes. At each step, trainee characteristics and the organisational contextual factors influence the extent to which the mechanisms of training are triggered.

Realist evaluation has primarily focused on understanding mechanisms and contextual facilitators and barriers during the intervention and how these together bring about intended and unintended outcomes (Pawson, 2013). We propose that mechanisms and contextual barriers and facilitators should be explored post-training as this is when trainees deliberate what skills and knowledge can be transferred into changes in emotions, cognitions and behaviours, in and outside the workplace. The trainee has autonomy to decide on when and how to transfer (Yelon & Ford, 1999) and therefore we need to understand transfer post-training.

Development of the ITTEM

In the development of the ITTEM, we integrate two disparate training literatures; training transfer and training effectiveness. The training transfer literature has focused on identifying the contextual factors that influence training transfer, e.g. the work environment and individual characteristics (Baldwin & Ford, 1988). Although the reviews and dominant models of training transfer offer valuable insights into the factors that influence training transfer, there are conflicting findings as to their importance (e.g. Burke & Hutchins, 2007). We therefore rely on the meta-analysis of Blume et al. (2010) to identify the factors that have been found to be statistically related to training transfer across a large number of studies and translate these into the context of mental health and wellbeing training. In addition to the factors identified by the Blume et al. (2010) meta-analysis, we also suggest factors that were not included in the meta-analysis but may be important to mental health and wellbeing training transfer and outcomes. The ITTEM proposes that pre-and post-training contextual factors, at both the

individual and organisational levels, influence the extent to which training transfer mechanisms are triggered.

A further limitation of both the original and more recent training transfer literatures is that they rarely link transfer to outcomes, i.e. training effectiveness, and vice versa (Saks & Burke, 2012). We incorporate training effectiveness into the ITTEM, as a means of ascertaining whether training is successfully transferred to the workplace and, subsequently, whether intended training outcomes are achieved. The training effectiveness literature has been dominated by the Kirkpatrick & Kirkpatrick (2016) taxonomy for training evaluation (Saks & Burke, 2012). Despite its wide acceptance in the training literature, it has received limited attention in the mental health and wellbeing training literature. None of the meta-analyses and systematic reviews we identified have used the framework (cf. Carolan et al., 2017a; Dreison et al., 2018; Firth et al., 2017; Martin et al., 2009; Richardson & Rothstein, 2008; Tan et al., 2014; Virgili, 2015).

Kirkpatrick's model has been widely criticised (Holton et al., 1997, Kaufman & Keller, 1994; Kraiger et al., 1993). First, the model has been criticised for failing to consider the organisational context. In the present model, we draw upon the training transfer literature to shed light on the contextual factors, which may influence working mechanisms.

Second, research has failed to support the causality of the four levels (Alliger & Janak, 1989). A positive reaction to, or satisfaction with training is no guarantee of learning. The zone for proximal development (Vygotsky, 1980) suggests that learners need to be pushed to the boundaries of their comfort zone in order for them to change. If trainees do not enjoy being pushed out of their comfort zone they will most likely react negatively to the training, regardless of whether being pushed has actually helped them learn.

Drawing on findings from the training transfer domain, it not surprising that learning does not necessarily lead to changes in emotions, cognitions, behaviours, and mental health and wellbeing. For learning to lead to observable change, trainees need to translate such learning into changes in emotions, cognitions, and behaviours in environments that support such translation. Mechanisms can be important mediators that explain the relationship between learning and changes in behaviours, and contextual factors can be important moderators. We argue that looking at the three levels of effectiveness – learning, changes in emotions, cognitions, and behaviours, and mental health and wellbeing – is a useful way of evaluating effectiveness, but suggest integrating these levels into a training transfer model to understand they could be linked.

In summary, we integrate the training transfer and training effectiveness literatures focusing on the levels of learning, emotions, cognitions, and behaviours, and mental health and wellbeing to develop a better understanding of what works for whom in which circumstances. Such understanding may help organisations make informed decisions on where to invest their resources to enhance future training design and activities to support training transfer. In the following sections, we describe the ITTEM in detail. The ITTEM can be seen in Figure 1.

The ITTEM

The ITTEM proposes five phases (or more) that together enable the evaluation of what works for whom in which circumstances. The first phase concerns pre-training contextual factors, within the individual and the organisational context that may influence the

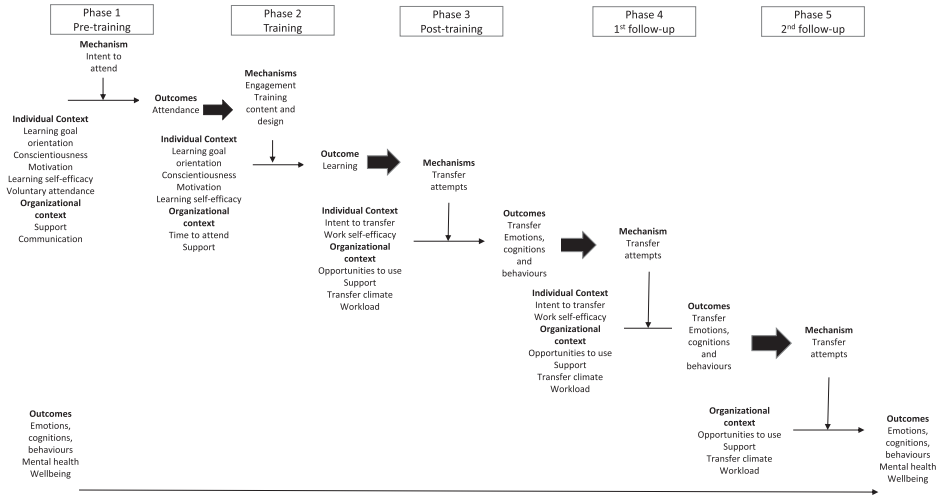

Figure 1. The Integrated Training Transfer and Effectiveness Model (ITTEM).

extent to which trainees attend training. The second phase concerns the training itself and, therefore, both the training content and delivery methods that influence the extent to which trainees successfully acquire skills and knowledge. Moreover, contextual factors will influence whether these mechanisms are triggered or not, i.e. whether trainees learn. During the third phase, immediately post-training, trainees should begin to proactively translate their newly acquired skills and knowledge (learning) into actual changes in emotions, cognitions, and behaviours. Transfer attempts, however, may be thwarted by both individual and organisational contextual factors, which, subsequently, will influence future transfer attempts at later phases. The fourth and fifth phases of the ITTEM are concerned with sustained changes in emotions, cognitions, and behaviours. Thus, training attempts, if successful, will transfer into sustained changes in emotions, cognitions, and behaviours (fourth phase), which will, over time, lead to the intended outcomes in mental health and wellbeing (fifth phase). In the present model, we stop at phase five, but in reality these transfer attempts and changes to emotions, cognitions, and behaviours evolve in much more complicated patterns (Blume et al., 2019). Importantly, we propose that intermediate outcomes of one phase influence the next phase, i.e. learning influences whether transfer attempts and successful transfer and changes in emotions, cognitions, and behaviours influence future transfer attempts.

Phase 1: Pre-training

A key intermediate outcome is that employees attend training and the key mechanism for such attendance is that employees intend to attend training as outlined in the ITTEM, see Figure 1.

Pre-training mechanism. The training engagement theory (Sitzmann & Weinhardt, 2018) suggests that an important mechanism that leads to training attendance is intent to attend training, i.e. workers' motivation to attend training as also identified in the meta-analysis by Blume et al. (2010). Intent to attend training may be particularly important in

mental health and wellbeing training due to the stigma attached to mental health (Clement et al., 2015).

Pre-training contextual factors. As outlined above, pre-training contextual factors, at both the individual level and organisational level, may influence whether the workers are motivated and intend to attend training, thus achieving the intermediate outcome of training attendance. Previous training transfer research has paid limited attention to the factors that may influence training uptake, as has the mental health and wellbeing training literature (e.g. Dreison et al., 2018).

Pre-training individual contextual factors. Limited attention has been paid to which characteristics may encourage training attendance (Blume et al., 2010). In line with Blume et al. (2010), we propose that important individual characteristics include *learning goal orientation*, i.e. the extent to which trainees are motivated to set and achieve learning goals (Blume et al., 2010; Burke & Hutchins, 2007). Trainees with a higher learning goal orientation should be more motivated to attend training. Learning goal orientation needs to be measured pre-training. Similarly, *conscientiousness* and *motivation* need to be considered as pre-training contextual factors (Blume et al., 2010). Conscientiousness is the only one of the Big Five traits to have a significant relationship with training transfer (Blume et al., 2010). Conscientious and motivated trainees are more likely to intend to attend training. In addition, pre-training *learning self-efficacy,* the extent to which trainees believe they can successfully acquire skills and knowledge, i.e. learn, during training (Colquitt et al., 2000), is moderately related to training transfer (Blume et al., 2010). We propose that training-specific learning self-efficacy is likely to trigger intent to transfer, which will predict attendance. Chiaburu and Marinova (2005) found that learning self-efficacy was significantly related to motivation to learn suggesting that learning self-efficacy is an important prerequisite for learning to happen. Finally, *voluntary participation* is an important factor for training transfer (Blume et al., 2010) and of workers do not feel pressured to attend training they may be more likely to intend to attend training. Voluntary participation may be particularly important for mental health and wellbeing training due to the stigma attached to these issues (Clement et al., 2015).

Pre-training organisational contextual factors. The organisational context also plays a key role in training transfer (e.g. Baldwin & Ford, 1988; Burke & Hutchins, 2007), and may therefore influence intent to training. For instance, *support* has been found to be moderately related to training transfer (Blume et al., 2010). In particular, we propose that trainees whose supervisors encourage attendance at training and communicate the importance of acquiring new skills and knowledge are more likely to feel motivated to and therefore intend to attend training. Furthermore, although not explored in the meta-analysis by Blume et al. (2010) *communication* about the objectives of the training, along with the benefits of attending, is also likely to encourage trainees to attend and increase their intentions to attend training (Burke & Hutchins, 2007).

Pre-training outcome measures. In order to evaluate the effectiveness of training it is important to identify outcomes pre-training and include baseline measurement of these to enable before and after comparisons. We propose to measure emotions, cognitions and behaviours according to the intended outcomes of training, together with employee mental health and wellbeing.

Phase 2: Training

The key intermediate outcomes of phase 2 is learning, see Figure 1. A number of mechanisms and contextual factors may influence whether learning occurs as a result of training.

Training mechanisms that bring about learning. Important training mechanisms that bring about learning are training engagement, training content, and design. Needless to say, if trainees do not *engage* in most or all training sessions, learning is unlikely to be an intermediate outcome. In the current literature on mental health and wellbeing training, engagement with training sessions is seen as an important mechanism (Hamilton-West et al., 2018; Vuori et al., 2012), however, was not explored in the meta-analysis by Blume et al. (2010).

The Blume et al. (2010) meta-analysis did not focus on the impact of *training design and content*, however, these influence the extent to which learning is achieved (e.g. Ford et al., 2018; Marchal et al., 2012). Training must be delivered in a way that trainees understand its objectives and its intended outcomes, and content must be perceived as meaningful and relevant to the job (Salas et al., 2012). Important training design characteristics include the use of activities that closely resemble real-life situations (Saks & Belcourt, 2006), multiple learning strategies, such as case analysis, worked examples, and discussions, along with error management strategies, i.e. making mistakes and learning from them (Ford et al., 2018). Furthermore, repetition of learning and role modelling are powerful tools to ensure learning (Ford et al., 2018; Roediger & Butler, 2011) as is goal setting (Ford et al., 2018). Trainees must also be provided with tools and materials to not only help them learn, but also to recall training content beyond the training setting (Salas et al., 2012). Thus, there are numerous elements of training design and content, which may influence the extent to which trainees learn during training.

During training individual contextual factors that facilitate learning. During the training phase, trainees high in *learning goal orientation* are more likely to work actively towards achieving learning goals, while *conscientious* and *motivated* trainees are more likely to complete training tasks and associated homework as identified in the meta-analysis by Blume et al. (2010). Finally, trainees who believe in their own ability to learn, i.e. who have high *learning self-efficacy,* are more likely to engage actively with training content.

During training organisational contextual factors that influence learning. Organisational contextual factors are likely to influence whether trainees benefit from training. Although not identified by Blume et al. (2010), supervisors need to prioritise trainees' attendance and allow them to take *time off* work in order to trainees to engage with training (Govaerts & Dochy, 2014). Furthermore, *support* from supervisors and peers, in the form of them respecting time spent on training and allowing trainees to practice how skills and knowledge can be translated into changed emotions, cognitions and behaviours at work, is likely to trigger learning as also identified by Blume et al. (2010). Colleagues who are made aware that trainees are undergoing training may also encourage and support trainees' intermediate learning outcomes.

Phase 3: Post-training

The key intermediate outcomes of phase 3 are that actual transfer happens, i.e. that employees transfer skills and knowledge to the workplace and that changes to emotions,

cognitions and behaviours can be observed, see also the ITTEM phase 3, Figure 1. Immediately after training, numerous mechanisms and contextual factors, at both the individual and organisational level, will influence whether these outcomes are achieved.

Post-training mechanisms that facilitate training transfer. Trainees need to actively translate their newly acquired skills and knowledge into actual changes in emotions, cognitions, and behaviours. Although analysed in the meta-analysis by Blume et al. (2010), key to training transfer is that trained workers engage in *transfer attempts*. Training transfer attempts refer to the extent to which trainees proactively identify situations in which they can apply their learning and apply emotion-, cognition-, and behaviour-based skills and knowledge they have acquired through training (Blume et al., 2019).

Post-training individual contextual factors. Blume et al. (2010) did not analyze *intent to transfer,* however, other research has suggested that such intent is key to training transfer (Al-Eisa et al. 2009; Cheng & Hampson 2008) as mental health and wellbeing interventions often require trainees' introspection (Virgili, 2015). Another important individual factor is *work-related self-efficacy,* i.e. the extent to which trainees believe they can successfully manage the challenges they face at work (Bandura, 1982) as also identified by Blume et al. (2010). Post-training, trainees who believe they can successfully master new challenges and apply newly acquired skills and knowledge are more likely to seek out situations where they may do so, i.e. engage in transfer attempts (Bell et al., 2017).

Post-training organisational contextual factors. Although not tested by Blume et al. (2010), *opportunities to use skills and knowledge* are likely to influence the extent to which trainees will attempt to transfer (Ford et al., 2018). To ensure transfer of training, trainees must be assigned tasks that allow them to practice the skills and knowledge acquired during training and must have time to practice (Salas et al., 2012), therefore *supervisor support* post-training plays a particularly important role in triggering the mechanism of transfer attempts (Blume et al., 2010). Also peer support is important (Blume et al., 2010), if trainees meet resistance when attempting to apply newly learned skills form their colleague, e.g. are hampered in their job crafting attempts, they are less likely to persist in attempting to transfer learned skills and knowledge about job crafting. *Transfer climate*, i.e. the organisational context facilitates or hinders trainees using what they have learned during training once back in the workplace may also trigger transfer attempts (Burke & Hutchins, 2007; Blume et al., 2010). Blume et al. (2010) did not explore the role of *workload* in predicting training transfer, however, workload may be an important organisational factor that may either facilitate or hinder transfer attempts. If workload is excessive, trainees may not have the time and energy to try out changes to emotions, cognitions, and behaviours (Hasson et al., 2010).

Phase 4: 1st follow-up: Changes in behaviour

After the post-training phase, a period of time must elapse in which trainees have the time and opportunity to engage in translating their learning into transfer attempts and actual changes in emotions, cognitions, and behaviour. In line with the DTM (Blume et al., 2019), we propose to measure an additional cycle of phase 3, see phase 4, the first follow-up phase of the ITTEM, Figure 1. We propose to measure the same mechanisms, individual and organisational contextual measures to capture positive gain spirals

or depletion cycles. If employees were hampered in their transfer attempts in phase 3, they are less likely to engage in transfer and reversely if they were encouraged and supported in their transfer attempts, they are likely to continue to apply learning and further develop their skills and knowledge and this transfer will increase as will changes in emotions, cognitions, and behaviours (Blume *et al*, 2019). The more transfer attempts the more likely active repetition is to happen (Ford et al., 2018; Roediger & Butler, 2011) and therefore the more likely skills and knowledge are to be transferred and applied in different situations, this resulting in positive gain spirals. If transfer attempts are unsuccessful and happen in an unsupportive context, a depletion cycle can be observed; trained workers are likely to give up transferring learned skills and knowledge to the workplace in the longer term.

Phase 5: 2nd follow-up: Evaluating training effectiveness

During this fifth phase of the ITTEM, the 2nd follow-up phase, see Figure 1, it must be explored whether employees continue to engage in transfer attempts and whether this leads to actual transfer, and whether the context continues to facilitate or hinder transfer attempts. At this last stage, changes to emotions, cognitions, and behaviours should be measured together with the long-term impact, i.e. the effects on distal outcomes; mental health and wellbeing.

Discussion

In the present paper, we propose an integrated training transfer and training effectiveness model; the ITTEM. As detailed above, the ITTEM is a dynamic model, developed by adapting elements of the dominant training transfer model by Baldwin and Ford (1988), the more recent Dynamic Transfer Model (DTM) by Blume et al. (2019), and the training effectiveness model by Kirkpatrick (Kirkpatrick & Kirkpatrick, 2016) to the domain of mental health and wellbeing training. We relied heavily on the Blume et al. (2010) meta-analysis on training transfer, however, in cases where characteristics had not been included in the meta-analysis, we referred to the wider training transfer literature.

Using realist evaluation as our underlying framework (Pawson & Tilley, 1997), we argue that pre- and post-training contextual factors, both within the individual and in the organisational context, influence the extent to which training and transfer mechanisms are triggered and bring about improved mental health and wellbeing. Crucial to our model is that trainees are not seen as passive recipients of training (Baldwin et al., 2017), but as active agents that proactively change their cognitions and behaviours. Trained workers must actively seek out situations in which they can practice learned emotions, cognitions, and behaviours. To date, however, there have been few reflections on how this may happen.

The ITTEM is an attempt to address the calls for developing our understanding of how and why training interventions success or fail. Such understanding may provide invaluable information about how organisations may maximise the impact of transfer (e.g. Blume et al., 2019; Ford et al., 2018) and thus ensure training interventions achieve their intended outcomes of protecting and promoting mental health and wellbeing in the workplace.

Understanding the factors that optimise training transfer may increase the effectiveness of such interventions and we may achieve more positive effects than currently found in meta-analyses (Dreison et al., 2006; Martin et al., 2009; Richardson & Rothstein, 2008). In this model, we have proposed a number of mechanisms and contextual factors, which has been found to play a role in training transfer in the wider organisational psychology literature (Blume et al., 2010), however, we acknowledge that other factors may also play a role. Our model should be seen as inspiration, however, evaluators should tailor the model focusing on the elements most relevant to specific training delivered, e.g. a mindfulness training may require less peer support for trainees to apply skills and knowledge post-training.

Analyzing training transfer and effectiveness

The complex model presented here requires analysis beyond the simple before and after measurement most often applied in the area of mental health and wellbeing training (e.g. Dreison et al., 2015; Richardson & Richardson, 2008). We argue that in order for training to achieve its intended outcomes and be effective, skills and knowledge acquired during mental health and wellbeing training need to be transferred. Whether training, if transferred, leads to intended improvements in mental health and wellbeing depends on a variety of factors, including: relevance of skills and knowledge learned to daily work; trainees' intent to transfer; contextual support for trainees' applying learned skills and knowledge; trainees' opportunities to practice learned skills and knowledge; and the success of transfer attempts. Pre- and post-analyses of training outcomes do not offer many immediate insights into why changes happened – or not. It is important to analyse the mechanisms and contextual factors measured at previous stages to determine their impact. By conducting such analyses, we may get to grips with what works for whom in which circumstances, as stipulated by realist evaluation (Pawson & Tilley, 1997; Pawson, 2013).

The analysis of CMO-configurations allows us to study different trainee trajectories (Blume et al., 2019) and enables us to understand the contexts in which training is likely to be transferred and achieve its intended outcomes. Furthermore, gaining an understanding of what works for whom in which circumstances also allows us to develop and tailor training to other work settings. Off-the-shelf evaluation with simple before and after measures does not help bridge the gap between research and practice, as it provides little action-oriented guidance nor does it help inform what works for whom in which circumstances (Sridharan & Nakaima, 2011). Integrated analyses of transfer and evaluation enable us to determine how effectiveness can be ensured in future training.

Limitations

The ITTEM model is not without its limitations. We must acknowledge that there is some confusion in the literature as to whether transfer climate includes peer and supervisory support (van den Bossche & Segers, 2013). In our model, we included both.

A second limitation is that our model at the same time both very complex and very simple. It is complex in the sense that it goes through many phases and requires many data collections points and advanced knowledge of data analysis. It is simple in the sense that the phenomenon under study is complex and there may be other factors that play a key role in transferring mental health and wellbeing training to the workplace

and our model may not capture all the complexities of training transfer. We see the ITTEM as a first attempt to stimulate a debate on how we may evaluate training transfer and effectiveness of mental health and wellbeing interventions and hope that a researchers adapt the model, it may be elaborated and refined.

Conclusion

The present model, the training transfer and training effectiveness model (ITTEM) proposes a way forward to enable an understanding of why and how training succeeds or fails. We used realist evaluation as the theoretical framework and focused on open skills training, which requires trainees to decide how to apply mental health and wellbeing training once back in the workplace. We believe the ITTEM, through its integration of diverse training literatures, offers two key contributions. First, it combines the training transfer and training effectiveness literatures, expanding on how mechanisms and contextual factors may influence outcomes at multiple levels, and applies this to the domain of mental health and wellbeing training. Second, it proposes training evaluation as a long-term dynamic to understand the factors that influence training in addition to what happens after training. We hope the ITEM will spark interest for what happens before, during and after training to improve employee mental health.

Disclosure statement

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

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