

GOAL DISENGAGEMENT AND GOAL RE-ENGAGEMENT PROCESSES IN RELATION TO MENTAL WELL-BEING FOR PEOPLE LIVING WITH CHRONIC PAIN

Paria Eshraghi^{1,2}, Deirdre Drake¹, Joanne Iddon³, & Joanne M. Dickson^{1,2}

¹*School of Arts & Humanities, Psychology Discipline, Edith Cowan University (Australia)*

²*Centre for Precision Health, Mental Health Research Group, Edith Cowan University (Australia)*

³*Mersey Care NHS Foundation Trust (United Kingdom)*

Abstract

Chronic pain, typically defined as pain persisting for three months or more, affects around one in five adults worldwide, and poses significant challenges to mental health and everyday functioning. Recent theory and research suggest that adaptive goal processes, effective goal disengagement and effective goal re-engagement are associated with increased well-being, in general populations. To date, however, scant research has examined these two distinct goal processes in relation to mental well-being for people living with pain. Living with chronic pain may well disrupt the pursuit of valued personal goals, thus leading to frustration and diminished mental well-being. Therefore, the present study aimed to investigate whether effective goal re-engagement (i.e., the ability to re-engage in a new goal) and effective goal disengagement (i.e., the ability to effectively dis-engage), when faced with an unachievable goal, were associated with mental well-being in adults living with chronic pain. Participants were 190 Australian adults (M age = 49.46, SD = 17.38; 49.5% men), with pain duration ranging from 3 months to >5 years. Participants completed the Goal Adjustment Scale (GAS), the Warwick–Edinburgh Mental Well-being Scale, and a measure of Chronic Pain Grade Scale (CPGS). As predicted, mental well-being was positively associated with effective goal re-engagement but counter to prediction, effective goal disengagement was not related to mental well-being in the full sample. Together, these findings suggest that re-engagement supports mental well-being in chronic pain, whereas the implications of disengagement may be more nuanced. Overall, these findings highlight the value of studying distinct adaptive goal mechanisms that may further inform our understanding of the nature of pain from a motivational perspective.

Keywords: *Chronic pain, goal dis-engagement, goal re-engagement, mental well-being.*

1. Introduction

Chronic pain, commonly defined as pain persisting for three months or longer (Treede et al., 2015), represents a major global public health concern due to its high prevalence and profound impact on daily functioning and mental well-being (Breivik, Collett, Ventafridda, Cohen, & Gallacher, 2006). Epidemiological estimates suggest that approximately one in five adults worldwide lives with chronic pain, making it one of the most common long-term health conditions across populations (Goldberg & McGee, 2011). Beyond sensory discomfort, chronic pain is associated with reduced participation in work, social, and valued life activities, as well as elevated risk for depression, anxiety, and diminished quality of life (Breivik et al., 2006). Importantly, the burden of chronic pain extends far beyond symptom intensity alone; it disrupts individuals' ability to pursue meaningful goals and maintain a coherent sense of everyday functioning (Eccleston & Crombez, 2007; Karoly & Ruhlman, 2007). As such, chronic pain is increasingly understood not merely as a biomedical condition, but as a complex biopsychosocial experience with substantial motivational and psychological consequences (Gatchel, Peng, Peters, Fuchs, & Turk, 2007).

Although chronic pain is often treated within a biomedical framework, growing evidence indicates that psychological processes play a central role in shaping how individuals adapt to persistent pain (Gatchel et al., 2007). Because effective cure or complete pain relief is not always achievable, understanding psychological adaptation is a central concern in long-term pain management. People with similar levels of pain intensity can differ markedly in functioning, emotional adjustment, and engagement with daily life, suggesting that psychological factors influence outcomes beyond experience pain alone (Eccleston & Crombez, 2007; Vlaeyen, 2000). Chronic pain therefore represents an enduring demand on psychological adaptation: It could be argued that some individuals sustain meaningful engagement in daily life and

preserve mental well-being despite persistent discomfort, whereas others experience escalating distress and functional decline. Understanding these differences requires examining the psychological mechanisms that support adaptive functioning under conditions of chronic physical limitation.

Personal goals function as central organising structures of everyday behaviour, providing direction, meaning, and a framework through which everyday experiences are interpreted (Dickson, Moberly, & Kinderman, 2011; Emmons, 1997). Goal-directed activity allows individuals to organise daily life around valued pursuits (Carver & Scheier, 1998); however, when important goals become unattainable, adaptive functioning depends on the capacity to adjust goal investment rather than persist rigidly in pursuing an unattainable goal (Brandtstädter & Rothermund, 2002). Theoretical models of self-regulation emphasise that well-being is maintained through flexible modification of goals in response to changing constraints, a principle later formalised within goal adjustment theory (Wrosch, Scheier, Miller, Schulz, & Carver, 2003). Goal adjustment theory distinguishes two complementary mechanisms: goal disengagement, defined as the ability to withdraw effort and commitment from unattainable goals, and goal re-engagement, defined as the ability to identify and invest in new meaningful goals (Wrosch, Scheier, Miller, et al., 2003).

Pain interference may disrupt engagement in everyday activities that structure identity and provide meaning (Karoly & Ruchman, 2007). However, such interference extends beyond functional limitations (Crombez, Eccleston, Van Damme, Vlaeyen, & Karoly, 2012; Turk, Wilson, & Cahana, 2011). It can disrupt a person's sense of agency, with important consequences for emotional adjustment and mental well-being (Breivik et al., 2006). From a goal-regulation perspective, blocked or threatened goals can become a recurring feature of daily life when living with pain. Under these circumstances, the capacity to disengage from unattainable pursuits and re-engage in alternative meaningful goals may be critical for preserving well-being. Yet, despite the relevance of these adaptive goal processes, relatively little research has examined goal adjustment mechanisms in the context of chronic pain. Applying goal adjustment theory to chronic pain provides a framework for understanding why some individuals maintain adaptive functioning despite persistent interference, whereas others experience escalating distress and diminished mental well-being.

The present study aimed to investigate whether adaptive goal processes are associated with mental well-being in adults living with chronic pain. Guided by goal adjustment theory, we hypothesised that greater goal re-engagement and effective goal disengagement would be positively related to mental well-being. Because chronic pain varies in the extent to which it disrupts daily functioning, we also conducted exploratory analyses to examine whether these relationships differed across levels of pain-related interference. This approach allowed us to evaluate not only the overall link between goal regulation and mental well-being, but also whether the psychological role of disengagement and re-engagement shifts under conditions of increasing functional limitation. Therefore, our study also aimed to examine whether associations between adaptive goal processes and mental well-being differed as a function of reported pain.

2. Methods

The study used a cross-sectional correlational design to examine associations between adaptive goal processes (i.e., goal re-engagement and goal dis-engagement) and mental well-being in adults living with chronic pain.

2.1. Participants and sample size

Participants were Australian adults experiencing chronic pain, defined as pain persisting for three months or longer (Treede et al., 2015). Eligibility required participants to be at least 18 years of age and currently residing in Australia. The final sample consisted of 190 individuals (96 women, 94 men) ranging in age from 18 to 88 years ($M = 49.46$, $SD = 17.38$).

2.2. Measures

The Goal Adjustment Scale (Wrosch, Scheier, Miller, et al., 2003) is a self-report instrument designed to assess effective goal dis-engagement and goal re-engagement. The disengagement subscale comprises 4 items and re-engagement subscale 6 items. Disengagement items assess the ability to withdraw effort from unattainable goals (e.g., "It's easy for me to stop thinking about the goal and let it go"), whereas the re-engagement items assess the tendency to identify and pursue new goals (e.g., "I seek other meaningful goals"). Items are rated on a 5-point Likert scale (1 = almost never true to 5 = almost always true). Subscale scores are summed, with higher scores indicating stronger adjustment capacities. Reverse scoring was applied where required ($n = 2$ dis-engagement items). Internal consistencies were acceptable for re-engagement ($\alpha = .90$) and disengagement ($\alpha = .68$).

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS; Tennant et al., 2007) is a 14-item measure designed to assess positive aspects of mental well-being. Items describe experiences of

emotional and social well-being over the previous two weeks (e.g., “I’ve been feeling optimistic about the future”). Items are rated on a 5-point frequency scale ranging from 1 (none of the time) to 5 (all of the time). Item scores are summed to produce a total mental well-being score, with higher values reflecting greater positive mental health. In the present sample the measure showed good reliability ($\alpha = .93$).

The Chronic Pain Grade Scale (CPGS; Von Korff, Ormel, Keefe, & Dworkin, 1992) is a brief self-report measure of pain intensity and pain-related interference. Participants rated current, worst, and average pain over the previous three months on 0-10 scales. Ratings were averaged and multiplied by 10 to yield a pain intensity index (0-100). Three further items assessed interference with daily, social, and work activities and were scored identically to yield a pain interference index (0-100). Internal consistency was good for both indices ($\alpha = .90$).

2.3. Recruitment & procedure

Ethical approval was granted by the Edith Cowan University Human Research Ethics Committee. Participation was voluntary and anonymous, and consent obtained prior survey access. Data were collected via an online Qualtrics questionnaire from participants recruited through an Australian research panel managed by PureSpectrum. The self-report questionnaire took approximately 10 minutes to complete. Demographic information was collected first, followed by goal process and motivation measures. Pain measures were administered last to minimise mood priming (Tourangeau, Rips, & Rasinski, 2000).

2.4. Data analysis

Statistical analyses were conducted in IBM SPSS 30. Preliminary screening assessed data completeness and distributional assumptions, including normality. Bivariate Pearson correlations examined associations between goal disengagement, goal re-engagement, and mental well-being in the full sample. To examine variation by pain-related interference, participants were grouped into low, medium, and high categories using tertile splits of CPGS interference scores, and correlations were repeated within subgroups. Pain interference was selected because it reflects functional disruption and shows stronger associations with mental well-being than pain intensity in previous research (Swindells, Iddon, & Dickson, 2023).

3. Results

Preliminary screening assessed data completeness and normality. Analyses were conducted on the full sample ($N = 190$). Musculoskeletal pain was the most prevalent condition, followed by fibromyalgia.

3.1. Associations between adaptive goal processes and mental well-being

As can be seen in Table 1 and as hypothesised, greater goal re-engagement was positively associated with increased mental well-being. Contrary to prediction effective goal disengagement was not significantly related to increased mental well-being. The two goal processes were not significantly correlated with each other.

Table 1. Descriptive statistics and correlations among study variables.

Variable	1	2	3	M	SD
1. Goal disengagement	1			11.47	2.87
2. Goal re-engagement	.14	1		19.76	4.74
3. Mental Well-being	-.09	.36***	1	45.81	10.89

Note. ** $p < .001$. (2-tailed).

As shown in Table 2, sub-group analyses examined whether associations between goal processes and mental well-being differed across pain-interference levels. Goal re-engagement was positively associated with mental well-being in the low- ($n = 55$), medium- ($n = 74$), and high-interference groups ($n = 61$). In contrast, goal disengagement was not associated with mental well-being in the low- or medium-interference groups, but was negatively associated in the high-interference group. This pattern suggests that the psychological role of disengagement may shift under greater pain interference.

Table 2. Goal processes associated with mental well-being across interference levels.

Level of Interference	n	Goal disengagement – Mental well-being	Goal re-engagement – Mental well-being
Low	55	-.10	.30*
Medium	74	-.18	.41***
High	61	-.31*	.40**

Note. $p < .05$. * $p < .01$. ** $p < .001$.

4. Discussion

The present study examined associations between adaptive goal disengagement, goal re-engagement, and mental well-being in adults living with chronic pain. Further, we explored whether these associations varied across levels of pain-related interference. Pain interference was used as the subgrouping variable because it reflects functional disruption of valued activities and aligns more closely with the goal-regulation framework. Consistent with prior findings, interference shows stronger associations with well-being than pain intensity (Iddon, Taylor, Unwin, & Dickson, 2019; Swindells et al., 2023). Consistent with our hypothesis, goal re-engagement showed a clear positive association with mental well-being. This aligns with goal adjustment theory, which conceptualises re-engagement as an adaptive process through which individuals restore meaning after valued pursuits become constrained or abandoned (Wrosch, Scheier, Carver, & Schulz, 2003). In the context of chronic pain, where disruption to everyday functioning is often unavoidable, the capacity to redirect effort toward alternative and flexible goals appears central to sustaining mental well-being (Iddon et al., 2019; Swindells et al., 2023). These findings support the view that, when pain is persistent, the capacity to identify and invest in alternative meaningful goals is central to sustaining mental well-being.

Contrary to our hypothesis, effective goal disengagement was not significantly associated with increased mental well-being. This finding is counter to theoretical views that posit effective goal disengagement is associated with increased mental well-being. However, the non-significant finding is consistent with recent empirical research in relation to psychological distress (Dickson et al., 2011). Theoretically, effective goal disengagement is viewed as an adaptive in response to an unattainable goal because it is thought to reduce repeated failure and persistent discrepancy (Wrosch, Scheier, Carver, et al., 2003). However, this goal theory has not been tested in the context of chronic pain. Notably, our finding indicates that effective goal disengagement may be context-dependent in chronic pain, as findings are mixed. Disengagement has been linked to less adaptive cognitive-affective patterns, particularly when it is not accompanied by successful goal re-engagement (Ramírez-Maestre et al., 2019). While other work suggests that adaptive goal adjustment, including letting go of unachievable goals, can be associated with positive outcomes (Arends, Bode, Taal, & Van de Laar, 2013). Letting go of valued goals may be experienced as loss, especially when pain restricts access to alternative pursuits and limits opportunities to invest in replacement goals.

The exploratory analyses revealed a differentiated pattern of findings. Goal re-engagement was positively associated with mental well-being across low, moderate, and high-interference groups, indicating a broadly beneficial role even as functional limitation increased. In contrast, disengagement was negatively associated with mental well-being only in the high-interference group. This suggests that the implications of disengagement depend on the severity of day-to-day disruption. Under high interference, disengagement may reflect forced loss of valued roles rather than flexible adjustment, with corresponding costs for mental well-being. This interpretation aligns with evidence that disengagement can resemble withdrawal under some chronic pain conditions (Ramírez-Maestre et al., 2019).

Taken together, the findings support a clear conclusion for re-engagement while pointing to a conditional role for disengagement. Re-engagement appears robustly linked to increased mental well-being for people living with chronic pain, even when interference is substantial. Disengagement, although conceptualized as adaptive within goal adjustment theory, may not uniformly confer benefits in pain contexts and may become psychologically costly when interference is high. The role of disengagement appears more nuanced and warrants further investigation.

Several methodological limitations should be noted. The cross-sectional design precludes causal inference, and self-report measures may have inflated associations through shared method variance. The subgroup findings were exploratory and require replication, ideally using longitudinal and moderation analyses. Future research should test whether these associations vary by pain intensity and whether strengthening goal re-engagement improves psychological outcomes in chronic pain.

5. Conclusion

Overall, goal re-engagement was positively associated with mental well-being, whereas goal disengagement was not. Contrary to theoretical assumptions, effective goal disengagement was not positively associated with mental well-being. Exploratory analyses further showed that disengagement was negatively associated with mental well-being in the high pain-interference group. This finding requires further investigation.

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