The associations among well-being comparisons and affective styles in depression, anxiety, and mental health quality of life

Pascal Schlechter¹ | Nexhmedin Morina²

¹Department of Psychiatry, University of Cambridge, Cambridge, UK
²Institute of Psychology, University of Münster, Münster, Germany

Correspondence
Pascal Schlechter, Department of Psychiatry, University of Cambridge, Young People’s Centre Douglas House, 18b Trumpington Rd, Cambridge CB2 8AH, UK.
Email: ps798@medschl.cam.ac.uk

Abstract
Objective: Frame-of-reference theories suggest that individuals use different comparison types to evaluate their well-being. Research indicates that the frequency of aversive well-being comparisons is related to depression, with engendered comparison affective impact partly accounting for this relationship. We aimed to replicate this finding, examine whether this extends to anxiety and mental health quality of life, and whether these pathways are moderated by affective styles of concealing, adjusting, and tolerating. We expected concealing as a response-focused style to be associated with higher effects of comparison affective impact on depression, anxiety, and mental health quality of life. Adjusting as an antecedent-focused strategy was expected to mitigate the effects of aversive comparison frequency on comparison affective impact, and the effects of comparison affective impact on the outcomes. Finally, tolerating was expected to be associated with lower effects on both pathways.

Methods and Measures: Participants (N = 596) responded to measures of well-being comparisons, affective styles, depression, anxiety, and mental health quality of life.

Results: Frequency of aversive well-being comparisons was associated with all outcomes. These relationships...
were partially mediated by comparison affective impact. Adjustment moderated the pathway between aversive comparison frequency and comparison affective impact. No other moderation effect emerged.

**Conclusion:** The comparison process appears important in well-being evaluations.

**KEYWORDS**
anxiety, depression, general comparative-processing model, mental health quality of life, well-being comparisons

---

### 1 | INTRODUCTION

Well-being is of paramount importance to the lives of most individuals (Diener et al., 2018; Ryff, 2014). Ample evidence indicates that well-being is positively related to health outcomes, longevity, and recovery from mental illnesses (Diener et al., 2017; Keyes et al., 2010; Wood & Joseph, 2010). More specifically, individuals with lower well-being were at a substantially higher risk to be depressed 10 years later (Wood & Joseph, 2010). Likewise, well-being is mutually associated with anxiety symptoms over time (Disabato et al., 2021; Fava et al., 2004). Accordingly, individuals tend to feel depressed or start to worry when they appraise their subjective well-being as poor (Diener et al., 2017). On a broader level, perceptions of low levels of well-being are related to poorer mental health quality of life (Connell et al., 2012). However, the question of how individuals construe the evaluation of their well-being is of high relevance (Morina et al., 2022). Frame-of-reference theories argue that self-judgments rely on comparisons rather than on some internal utility scale (Marsh et al., 2020; Morina, 2021; Vlaev et al., 2011). Indeed, a substantial number of clinical and nonclinical participants spontaneously mentioned different comparison types when asked about their well-being in interviews (Morina et al., 2022). It has further been reported that unfavorable well-being related comparisons are associated with more depressive symptoms (Morina & Schlechter, 2023). Affective impact after engaging in such comparisons critically influenced this relationship. Therefore, it is likely that different affective styles play a crucial role in moderating the unfolding emotional reactions following unfavorable well-being comparisons (Aldao et al., 2010; Cludius et al., 2020; Gross et al., 2019). The present study thus seeks to investigate this relationship in the context of depression, anxiety, and mental health quality of life.

#### 1.1 | Well-being comparisons and mental health outcomes

Comparison processes are ubiquitous in everyday life (Gerber et al., 2018). Most research has focused on different aspects of social comparisons and how they affect well-being (Gerber et al., 2018; Reiff et al., 2022; Unkelbach et al., 2023). Specifically, meta-analytical evidence suggests that depressive and anxiety symptoms are associated with negative self-evaluation in relation to others (McCarthy & Morina, 2020). However, reference frames for one’s well-being go beyond social comparison. A person can, for instance, evaluate how her current well-being compares to a recollection of how she was doing when she was younger (temporal comparison), or compare her well-being relative to what the well-being of women of her age should be (criteria-based comparisons), or how much better her wellbeing would be at the moment, if only she had eaten healthy enough in the past (counterfactual comparisons, see Morina [2021] for an overview of comparison types). Individuals can engage in upward (e.g., I was doing better 2 years ago than currently), lateral (e.g., I am doing just as good as my friend), and downward (e.g., I would be doing
worse if I had not quitted my first job) comparisons relative to the outcome of the comparison process. The motivational significance of the comparison outcome (e.g., I am doing worse than most of my coworkers) can evoke negative affective responses when they threaten the comparer’s motives and goals (see Morina [2021] for a general comparative-processing model [gComp]). In the context of well-being comparisons, theoretical accounts and recent research indicate that upward social, past temporal, counterfactual, and criteria-based comparisons and downward prospective temporal comparisons are perceived as aversive (i.e., threatening one’s own motives) (Morina & Schlechter, 2023). Specifically, the frequency with which individuals habitually engage in aversive well-being comparisons is associated with more depressive symptoms and lower overall psychological well-being in dysphoric individuals (Morina & Schlechter, 2023). Importantly, these relationships were (partly) accounted for by engendered affective impact after frequently engaging in aversive well-being comparisons. That is, more frequent aversive well-being comparisons were associated with stronger negative comparison affective impact, which in turn, was associated with more depressive symptoms and lower overall psychological well-being. However, it remains unknown whether and how these pathways are affected by different emotion regulation strategies that individuals apply to counteract arising negative feelings during this process (Aldao et al., 2010; Cludius et al., 2020; Gross et al., 2019).

1.2 Emotion regulation strategies and affective styles

Maladaptive emotion regulation strategies bear transdiagnostically relevance across several mental disorders (Aldao et al., 2010; Cludius et al., 2020; Gross et al., 2019). Here, we focus on three styles of affect regulation that may operate within the evolving comparison process, namely concealing emotions, readjusting emotions, and tolerating emotions (Hofmann et al., 2012).

The response-focused strategy concealing (Hofmann & Kashdan, 2010; Totzeck et al., 2018) may be applied to avoid thinking about the resulting aversive affect. Therefore, we suspect that this affective style is likely to operate on the pathway between aversive comparison affective impact and the mental health outcome. Noteworthy, emotional suppression is a maladaptive regulation strategy associated with psychopathology (Aldao et al., 2010; Cludius et al., 2020; Gross et al., 2019; Schlechter et al., 2022). For instance, in a clinical sample, concealing affective style was associated with both anxiety and mood disorders (Totzeck et al., 2018). Accordingly, higher levels of concealing should be related to more depressive and anxiety symptoms when experiencing strong negative comparison affective impact, as this affective style is applied as a strategy to disengage from the unfolding negative emotions. This aligns with central claims from gComp that distraction may be an applied strategy when the comparison outcome is perceived as too big a threat (Morina, 2021).

Conversely, adjusting—an antecedent-focused strategy—is used to modulate unfolding negative emotions and adjust to the situation to maintain psychosocial functioning (Hofmann & Kashdan, 2010; Totzeck et al., 2018). This affective style is less frequently applied by patients with depressive disorders compared to nondepressed individuals (D’Avanzato et al., 2013; Totzeck et al., 2018). As adjusting is applied in the early phase of the emotion regulation process (Hofmann et al., 2012), it may play a crucial role on the first pathway between aversive well-being comparison frequency and unfolding negative affective impact after engaging in aversive comparisons. Specifically, higher levels of adjustment should be associated with more adaptive appraisals of the aversive comparison frequency outcome. These more functional ways of appraising aversive well-being comparisons should be associated with weaker levels of negative comparison affective impact. Also, adjustment may operate on the second pathway between aversive comparison affective impact and the outcomes. According to gComp, individuals can engage in secondary evaluations such as reevaluation of the comparison process when the affective outcome is bearable (Morina, 2021). That is, if individuals with higher levels of adjustment manage to balance their first emotional response to the comparison outcome, they may reconstrue the comparison process in a more positive way. For instance, when they realize that their well-being is worse than the well-being of one of their healthier and
more active friends, they may choose to compare to someone with a similar lifestyle to their own. Alternatively, 
adjustment might help them to better focus on how to improve their well-being.

Last, tolerating constitutes an acceptance-based affective style (Hofmann et al., 2012). This affective style 
is likely to operate on both pathways. First, maintaining a tolerating or accepting attitude towards negative 
emotions resulting from comparison may mitigate engendered negative affective impact resulting from 
aversive comparison frequency. Likewise, when a negative affective impact arises, its effect on depression 
or anxiety should also be mitigated by a tolerating affective style. Individuals with high levels of a tolerating 
attitude may be able to engage in rededication processes, which is another relevant secondary evaluation 
according to gComp (Morina, 2021).

1.3 | The present study

We aimed to investigate the relationship between aversive well-being comparisons and depression, anxiety, 
and mental health quality of life. Based on prior research, we expected that more frequent aversive well-being 
comparisons are associated with more depressive and anxiety symptoms, and lower mental health quality of 
life (Morina & Schlechter, 2023). We further expected that these relationships would be mediated by negative 
affective impact after engaging in aversive comparisons. In addition, we examined whether these pathways 
are moderated by different affective styles. We expected concealing as a response-focused strategy to 
be associated with a stronger impact of negative affective reactions on the outcomes. Adjusting on the other 
hand as an antecedent-focused strategy was expected to be associated with lower effects of aversive 
comparison frequency on negative comparison affective impact. In addition, adjustment was also expected to 
operate on the second pathway between aversive comparison affective impact and the outcomes. Last, 
tolerating was expected to be associated with lower effects on both pathways, that is reducing the impact of 
aversive comparison frequency on negative comparison affective impact as well as mitigating the effect of 
negative affective impact on the outcomes.

2 | METHODS

2.1 | Openness and transparency

The anonymized data, and R analysis code can be found in the open science framework (https://osf.io/25ytn/? 
view_only=94454d1741c04eab8762c3d5ecde54cd). The present study was not preregistered.

2.2 | Participants and procedure

Our study took place online via panel provider Prolific Researcher (Palan & Schitter, 2018). Potential 
participants were international panel members fluent in English and over 17 years of age. A total number of 
N = 596 individuals participated with a mean age of 24.83 (SD = 7.15) years. The majority of the participants 
were female (74%, n = 441). Of the participants, n = 81 reported to have a graduate degree, n = 158 had a 
bachelor’s degree, n = 18 had an associate degree (above high school education but below a bachelor’s degree), 
n = 126 had some college education but no degree, n = 204 had a high school (or equivalent) degree, and n = 9 
had no high school degree. Most participants (n = 466) were single or never married followed by being married 
(n = 126). Participants provided informed consent. The Ethics Committee of the University of Münster gave 
ethical approval to the study.
2.3 | Measures

To assess well-being-related comparisons, we used the Comparison Standards Scale for Well-being (CSS-W), a recently developed measurement instrument with good psychometric properties (Morina & Schlechter, 2023). This scale assesses upward and downward comparisons via social, temporal, counterfactual, and criteria-based standards relative to one’s own well-being. The CSS-W consists of 14 items assessing the frequency of well-being comparisons in the past 3 weeks on six-point Likert scales (0 = not at all to 5 = very often). In the present study, we used a further subscale following this frequency assessment. When the frequency question was answered with a minimum score of 1, 1 potential subitems tapping into affective impact were assessed, on a bipolar seven-point Likert scale (−3 = much worse to +3 = much better). For instance, an upward social comparison item first assesses the frequency “Over the past 3 weeks when considering your well-being, how often have you compared with others in your close circles who were doing better than you?” If participants indicate values higher than “0 = not at all,” they are additionally asked “On average during the past 3 weeks, how did the comparison make you feel?” (i.e., affect assessment). If participants did not engage in this comparison type, they received a zero on the respective affective impact item based on the consideration that they cannot be emotionally affected when they did not engage in the respective comparison type. Factor analysis indicated a two-factor solution for both comparison frequency and affective impact after engaging in comparisons capturing the two correlated latent factors aversive and appetitive comparisons (Morina & Schlechter, 2023). Upward social, past temporal, counterfactual, and criteria-based comparisons, and downward prospective temporal comparisons comprise the aversive comparison factor (i.e., threatening one’s own motives). In line with our research aims, we used the aversive frequency subscale (α = .66) and aversive comparison affective impact subscale (α = .80).

Affective styles were assessed with the Affective Style Questionnaire (ASQ; Hofmann & Kashdan, 2010). The ASQ consists of 20 items assessing three dimensions of affective styles: (1) concealing or suppressing affect (eight items, e.g., “I often suppress my emotional reaction to things”), (2) adjusting one’s own affect to the situational demands (seven items, e.g., “I can get out of a bad mood very quickly”), and (3) tolerating as defined as accepting attitude toward emotions (five items, e.g., “It’s ok if people see me being upset”). Items were assessed on a 5-point Likert scale ranging from 1 (not true of me at all) to 5 (extremely true of me). Internal consistencies were good for the concealing (α = .84) and adjusting (α = .84) subscales, and acceptable for the tolerating (α = .62) subscale.

We assessed symptoms of depression and anxiety with the Patient Health Questionnaire-4 (PHQ-4, Löwe et al., 2010). The PHQ-4 consists of four items on a four-point scale from 1 (not at all) to 4 (nearly every day) assessing core symptoms of depression (α = .83) and anxiety (α = .86) (loss of interest, depressed mood, anxiety, constant worries) endorsed in the last 2 weeks.

To assess mental health quality of life, we relied on the Short-Form Health Survey-36 (SF-36) by using six items that are also included in the SF-12 (Gandek et al., 1998; Ware et al., 1996). Response options of the SF-36 depend on the question and can be dichotomous (yes/no), ordinal (excellent to poor), or expressed as frequency (always to never). Items were scored according to the coding algorithm of the SF-12 (Gandek et al., 1998; Ware et al., 1996). Internal consistency was good in the present study (α = .83).

2.4 | Statistical analyses

Analyses were conducted in R (R Core Team, 2021) version 4.01. The pathway models were examined with the lavaan package in R (Rosseel, 2012). Descriptive statistics of all constructs are separately reported for men and women. Then, we computed Pearson correlation coefficients among all constructs with corresponding 95% confidence intervals (CIs) around these estimates. Next, we tested our specified pathway models representing the comparison process and its relationship with affective styles and our outcome variables. We computed these models separately for the three outcome variables (depression, anxiety, and mental health quality of life) and...
separately for the three affective styles as moderators (concealing, adjustment, and tolerating). That is, we tested nine different models in total. In these models, *aversive comparison frequency* served as a predictor variable for depressive as well as anxiety symptoms, and mental health-related quality of life, respectively. The term predictor variable is used in the context of the models but does not imply causality. *Comparison affective impact* was then treated as a mediator variable accounting for these relationships. We then introduced the affective styles concealing, adjusting, and tolerating as moderator variable on the pathways between *comparison frequency* and *comparison affective impact* (Moderation 1), and *comparison affective impact* and depressive symptoms, anxiety symptoms, and mental health quality of life (Moderation 2). As a sensitivity analysis, we controlled for gender in our models, which did not change the conclusions of our study. We centered predictor variables before entering them into the models. To estimate CIs for the assessment of indirect effects in our pathway models, we used bootstrap resamples with 10,000 iterations (Hayes, 2015).

3 | RESULTS

3.1 | Descriptive statistics

Table 1 shows the descriptive statistics of all tested constructs. Females reported to have engaged in comparisons more frequently than males and had a stronger negative affective impact after engaging in well-being comparisons. Moreover, they reported higher levels of the affective styles concealing and lower levels of adjusting and tolerating compared to males. In addition, they reported more depressive and anxiety symptoms, as well as lower mental health quality of life compared to men.

3.2 | Correlations among constructs

Table 2 depicts the correlations among all constructs. Comparison frequency was strongly related to negative affective impact after engaging in aversive comparisons. Comparison frequency was further associated with the affective styles adjusting and tolerating and less strongly with the affective style concealing. Comparison frequency was also related to more depressive and anxiety symptoms, as well as lower mental health quality of life. Stronger

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Descriptive statistics for the entire sample and separately for males and females.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Comparison frequency</td>
<td>2.52</td>
</tr>
<tr>
<td>Comparison affective impact</td>
<td>−0.89</td>
</tr>
<tr>
<td>Concealing</td>
<td>3.28</td>
</tr>
<tr>
<td>Adjusting</td>
<td>2.87</td>
</tr>
<tr>
<td>Tolerating</td>
<td>3.31</td>
</tr>
<tr>
<td>Depression</td>
<td>2.40</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2.20</td>
</tr>
<tr>
<td>Mental health QoL</td>
<td>37.36</td>
</tr>
</tbody>
</table>

Abbreviations: M, mean; QoL, quality of life; SD, standard deviation.
<table>
<thead>
<tr>
<th></th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Comparison frequency</td>
<td>-0.56 [-0.62, -0.51]**</td>
<td>0.09 [0.01, 0.17]*</td>
<td>-0.36 [-0.43, -0.29]**</td>
<td>-0.24 [-0.31, -0.16]**</td>
<td>0.46 [0.40, 0.52]**</td>
<td>0.52 [0.46, 0.57]**</td>
</tr>
<tr>
<td>2.</td>
<td>Comparison affective impact</td>
<td>-0.05 [-0.13, 0.03]ns</td>
<td>0.42 [0.35, 0.48]**</td>
<td>0.19 [0.11, 0.27]**</td>
<td>-0.49 [-0.55, -0.43]**</td>
<td>-0.49 [-0.55, -0.43]**</td>
<td>0.58 [0.52, 0.63]**</td>
</tr>
<tr>
<td>3.</td>
<td>Concealing</td>
<td>-</td>
<td>0.22 [0.14, 0.29]**</td>
<td>0.03 [-0.05, 0.11]ns</td>
<td>0.08 [0.00, 0.16]*</td>
<td>0.14 [0.06, 0.22]**</td>
<td>-0.05 [-0.13, 0.18]ns</td>
</tr>
<tr>
<td>4.</td>
<td>Adjusting</td>
<td>-</td>
<td>0.44 [0.38, 0.51]**</td>
<td>-0.42 [-0.49, -0.36]**</td>
<td>-0.37 [-0.44, -0.30]**</td>
<td>0.47 [0.41, 0.43]**</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Tolerating</td>
<td>-</td>
<td>-0.25 [-0.32, -0.17]**</td>
<td>-0.17 [-0.25, -0.09]**</td>
<td>0.22 [0.15, 0.30]**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Depression</td>
<td>-</td>
<td>0.68 [0.64, 0.72]**</td>
<td>-0.69 [-0.73, -0.65]**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Anxiety</td>
<td>-</td>
<td>-</td>
<td>-0.74 [-0.77, -0.70]**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Mental health-related QoL</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Number in parentheses refers to the 95% confidence intervals for the correlations of the constructs. Abbreviations: ns, nonsignificant; QoL, quality of life.

*p < .05; **p < .001.
negative comparison affective impact was associated with lower levels of the affective styles adjusting and tolerating as well as more depressive and anxiety symptoms and lower mental health quality of life.

3.3 | Pathway models

Of the nine different pathway models, only the pathway models that included the affective style adjustment yielded significant moderation effects. The moderation effects of the affective styles concealing and tolerating were not significant, all $p \textgreater .116$. Therefore, we report only the results for the affective style adjustment as the basic mediation model (comparison frequency $X \rightarrow$ comparison affective impact $M \rightarrow$ outcome $Y$) was essentially the same for all three affective styles. The three pathway models for the affective style adjustment are visually depicted in Figure 1.

3.4 | Depression pathway model

Comparison frequency was significantly associated with more depressive symptoms. In addition, aversive comparison frequency was associated with a stronger negative affective impact after engaging in comparisons, which in turn, was related to more depressive symptoms. Accordingly, the indirect effect of comparison affective impact on the relationship between comparison frequency and depressive symptoms was significant, $0.13 [95\% \text{ CI: } 0.09, 0.18]$, $p < .001$. This indicates that aversive comparison affective impact partially accounted for this relationship. In addition, we found a significant moderation effect of the affective style adjustment on the pathway between aversive comparison frequency and affective comparison impact. The conditional moderation effect on this pathway was significant, $p = .002$. For $-1SD$ of adjustment the estimate was $-0.55$, $SE = 0.04$, $p < .001$, while it was $-0.45$, $SE = 0.03$, $p < .001$ for the mean, and $-0.34$, $SE = 0.03$, $p < .001$ for $1 \text{ SD on adjustment}$. This moderation effect is depicted in Figure 2. The moderation effect on the pathway between aversive comparison impact and depression was not significant.

3.5 | Anxiety

The model with anxiety as outcome variable mirrored the model with depression as outcome (see Figure 1). Comparison frequency was significantly associated with more anxiety symptoms. In addition, aversive comparison frequency was associated with a negative affective impact after engaging in comparisons, which in turn, was related to more anxiety symptoms. Hence, the indirect effect of comparison affective impact on the relationship between comparison frequency and anxiety symptoms was significant, $0.13 [95\% \text{ CI: } 0.09, 0.18]$, $p < .001$. This again suggests that aversive comparison affective impact partly accounted for this relationship. In addition, we found a significant moderation effect of the affective style adjustment on the pathway between aversive comparison frequency and affective comparison impact. As this is based on the same linear models as in the depression model, the moderation effect was the same as described above. The moderation effect on the pathway between aversive comparison impact and anxiety was also not significant.

3.6 | Mental health quality of life

The model with mental health quality of life as an outcome variable mirrored the models with depression and anxiety as outcomes (see Figure 1). Comparison frequency was significantly associated with less mental health
FIGURE 1  Moderated mediation models of the association between aversive comparison frequency (X) and depressive symptoms (upper left panel), anxiety (middle panel), and mental health component (lower panel) (Y). Comparison affective impact serves as mediator (M1). Affective adjustment style serves as moderator variable on the pathways between comparison frequency and comparison affective impact (Mod 1) and comparison affective impact and depressive symptoms (upper panel), anxiety (middle panel) and mental health component (lower panel) (Mod 2). Mod, moderation effect. *p < .05, **p < .01, ***p < .001.
quality of life. In addition, comparison frequency was associated with a stronger negative affective impact after engaging in comparisons, which in turn, was related to lower mental health quality of life. Hence, the indirect effect of comparison affective impact on the relationship between comparison frequency and mental health quality of life was significant, $-2.10$ [95% CI: $-2.65$, $-1.55$], $p < .001$. Hence, aversive comparison affective impact partially accounted for this relationship. In addition, we found a significant moderation effect of the affective style adjustment on the pathway between aversive comparison frequency and comparison affective impact. Again, this was based on the same linear models as in the depression and anxiety model. Accordingly, the moderation effect was the same as described above. The moderation effect on the pathway between aversive comparison impact and mental health quality of life was not significant.

## DISCUSSION

To evaluate their well-being, individuals habitually engage in different types of comparisons. We found that the frequency of aversive well-being comparisons is associated with more depressive and anxiety symptoms as well as lower mental health quality of life. These relationships were partially accounted for by the resulting affective impact after engaging in aversive well-being comparisons. The affective style adjustment moderated the pathway between aversive comparison frequency and affective impact. Our findings align with previously reported research findings that aversive well-being comparisons are associated with depressive symptoms (Schlechter & Morina, 2023). Also in line with prior research, the present study found that the frequency of aversive well-being comparisons is associated with engendered negative affective impact (Morina & Schlechter, 2023), which in turn was associated with depressive symptoms. Importantly, the present study expands these findings to anxiety symptoms and mental health quality of life.
health quality of life. This important finding indicates that individuals may react differently to the threats imposed by the well-being comparisons. As we did not find differential effects of the affective styles concerning the outcomes within the comparison process, future studies need to disentangle differential pathways by which aversive well-being comparisons lead to either depression or anxiety or both.

Within the comparison process, we found one relevant moderation effect. The affective style adjusting was associated with lower effects of aversive comparison frequency on engendered negative affective impact. Adjusting represents an antecedent-focused strategy, and therefore individuals with higher levels of adjustment are likely better to adjust to the comparison outcome compared to people with low levels of adjusting (Hofmann & Kashdan, 2010; Schlechter et al., 2022; Totzeck et al., 2018). However, even for those with high levels of adjustment, aversive comparison frequency was still associated with higher levels of engendered negative affective impact. This indicates that the effects of aversive comparison frequency cannot be fully mitigated by adjustment, pointing to the strength and importance of comparison processes in the construal of individual well-being (Morina, 2021; Morina et al., 2022).

In contrast to our expectations, we did not find other moderation effects of the affective styles. Concerning single associations, comparison frequency was further associated with tolerating and less strongly with the affective style concealing. Stronger negative comparison affective impact was associated with lower levels of the affective styles adjusting and tolerating. The weak and absent association between concealing and aversive comparison frequency and engendered affective impact, respectively, may be driven by the fact that concealing constitutes an avoidance-orientated strategy that may align with a prevention focus. While individuals with higher levels of concealing tend to engage in well-being comparison slightly more frequently, they may be inclined to not remember or report engendered affective impact to protect themselves.

While a single association suggested some relations between the affective style tolerating and comparison frequency, there was no moderation effect on the different pathways. This could suggest that a tolerating attitude is associated with less frequent well-being comparisons. However, within the comparison process, tolerating did not play a central role. This may be because well-being represents a ubiquitous and very broad domain that bears relevance to individual lives (Diener et al., 2018; Keyes et al., 2010; Wood & Joseph, 2010). Given the importance and salience of this domain (Diener et al., 2017; Ryff, 2014), it may be difficult to maintain a tolerating attitude once a comparison outcome poses a threat to the comparer. This could be different in the context of other comparison domains such as comparisons concerning appearance (Schafeer & Thompson, 2018; Schlechter et al., 2023). For most people, it may be easier to accept that they are not as good-looking as their friends than to accept that their own well-being is worse relative to the well-being of others. This interpretation could be supported by the finding that in the context of appearance-related comparisons, dimensional comparisons represent a relevant comparison type (Morina et al., 2023). Dimensional appearance comparisons occur when one compares their current appearance with some other personal attribute. That is, people may conclude that they are not as good-looking as they ought to be, but that they are still doing better academically than others. However, such dimensional comparisons did not load on the same factor as other comparison types (social, temporal, criteria-based, and counterfactual) in the context of well-being comparison (Morina & Schlechter, 2023). This is also likely attributable to the ubiquitous relevance of the domain of well-being that makes it difficult to switch dimensions as there appears to be little meaning in concluding that one is doing worse than previously anticipated, but that at least one is better looking than their friends. Accordingly, it may be difficult to tolerate a negative outcome of the comparison process in the context of well-being.

Previous research has already established that well-being comparisons play a significant role in depression and well-being in dysphoric individuals and that this relationship is critically influenced by engendered affective impact (Schlechter & Morina, 2023). Our findings add to this literature in three important ways. First, we extended the findings to individuals with the full spectrum of depressive symptoms. While both clinical and nonclinical participants spontaneously mentioned comparison types when they were asked about their well-being in interviews, the frequency of these comparisons was higher in clinical participants (Morina et al., 2022).
Accordingly, an increase in the frequency of comparisons may act as a warning sign that may be important for preventive interventions as it may indicate upcoming symptom cascades starting with stronger engendered negative affective impact, which may then instigate more depressive symptoms. While such processes bear high clinical relevance, they need to be disentangled in more depth before potential interventions can be derived. Second, we extended the findings to anxiety symptoms and mental health quality of life. Together with the findings concerning depression and psychological well-being (Morina & Schlechter, 2023), this may point to the transdiagnostic nature of well-being comparisons. While we did not identify differential effects for these mental health issues, it is important for future studies to unravel when and how aversive comparisons instigate worry or dysphoric mood in different individuals. Identifying moderators or mediators of multifinality in aversive well-being comparison may help to build a transdiagnostic models that indicate disorder-specific pathways to intervene on (Nolen-Hoeksema & Watkins, 2011). Third, by investigating affective styles, we investigated an important factor that is relevant for transdiagnostic mental health (Aldao et al., 2010; Cludius et al., 2020; Gross et al., 2019). Whereas affective styles were only partly important within the comparison process, this points to the complexity of aversive well-being comparisons and the need to further investigate underlying factors that may contribute to a greater understanding of well-being comparisons (Morina, 2021).

These future research lines may help to derive psychological advice on how to construe well-being comparisons in a healthier way. For instance, it can be beneficial to increase awareness of well-being comparison and their relationship to mental health outcomes among individuals. This can enable the identification of dysfunctional patterns of well-being comparison to be targeted for modification through appropriate intervention techniques. To this end, it is crucial to conduct research on the efficacy of specific approaches, such as cognitive restructuring or acceptance-based approaches, in reducing the frequency and affective impact of well-being comparison.

4.1 | Limitations

This study has some limitations. Our analyses are cross-sectional. Hence, causality cannot be established this way despite being implied in the models. For example, experiencing more mental health symptoms can also contribute to more frequent comparisons in individuals (Appel et al., 2015). Therefore, longitudinal and experimental studies are necessary to provide insights about directionality, which can further substantiate theory building. Although controlling for gender did not change our conclusions, several unmeasured variables may have confounded the results, which we could not control for in the present study. Our sample consisted of healthy individuals. Replication of the findings in individuals with clinical symptoms of depression or anxiety may provide more insights into psychopathological processes. As the affective styles did not emerge as key moderators on the different pathways, it is relevant to investigate further variables that may be implicated in these relationships.

5 | CONCLUSION

Well-being is a central domain for individuals lives and its construal needs to be better understood. The present study suggests that the frequency of aversive well-being comparisons is associated with depression, anxiety, and mental health quality of life. Engendered comparison affective impact played an important role in accounting for this relationship. Adjusting as an affective style may help to mitigate the effects of aversive well-being comparisons on engendered comparison affective impact. Yet, more research is needed to discern the underlying mechanisms of the well-being comparison process in more depth.
AUTHOR CONTRIBUTIONS

Pascal Schlechter: Conceptualization; data curation; formal analysis; investigation; methodology; visualization; roles/writing—original draft; writing—review and editing. Nexhmedin Morina: Conceptualization; data curation; funding acquisition; investigation; methodology; project administration; resources; supervision; roles/writing—original draft; writing—review and editing.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in OSF at https://osf.io/25ytn/?view_only=94454d1741c04eab8762c3d5ecde54cd.

ORCID

Pascal Schlechter http://orcid.org/0000-0002-5916-3694

PEER REVIEW

The peer review history for this article is available at https://www.webofscience.com/api/gateway/wos/peer-review/10.1002/jclp.23607.

REFERENCES


