Self-forgiveness in fibromyalgia patients and its relationship with acceptance, catastrophising and coping

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ABSTRACT

Objective. *Forgiveness influences health through numerous mechanisms, but commonly it is thought to reduce stress, increase healthy behaviour, and promote social support, thereby positively impacting health and wellbeing. Self-forgiveness has been given considerable attention in relation to health and wellbeing. Fibromyalgia (FM) patients had lower forgiveness of others and self-forgiveness as compared to controls. The aim of this study is to explore the relationship of self-forgiveness (FS) with the impact and severity of FM, acceptance, catastrophising, and coping.*

Methods. *We evaluated 228 FM female patients who completed the Mauger Forgiveness Scale, the Combined Index of Severity in Fibromyalgia (ICAF) survey, the Chronic Pain Acceptance Questionnaire (CPAQ), and the Pain Catastrophising Scale (PCS).*

Results. *High self-forgiveness is related to high levels of active coping (r=.41) and acceptation (r=.38), and low self-forgiveness is related to emotional negative factors and catastrophising (r=-.56). Two factors (physical and emotional) were obtained. Lower FS is an emotional factor with negative emotion, catastrophising and a deficit in active coping. A decision-tree analysis showed a first node with ICAF Emotional scores and a second level with CPAQ and PCS scores as predictors.*

Conclusion. *A notable lack of FS indicates a problem (distress and catastrophising) with the health aspects related to this syndrome. Acceptance could require a low negative emotional status. People with high FS were likely to increase acceptation as the positive component of acceptance in FS. This finding does not indicate an interest in maintaining problematic behaviours.*

Introduction

Forgiveness is a multidimensional construct with diverse connections to health and wellbeing in both patients and general populations (1). Forgiveness can be conceptualised in multiple ways, but two common approaches are to consider, *i.e.* forgiveness of others and self-forgiveness (2). Forgiveness is commonly described as a trait or characteristic of an individual that is relatively stable across time and situations (3). Forgiveness influences health through numerous mechanisms, but commonly it is thought to reduce stress, increase healthy behaviour, and promote social support thereby positively impacting health and wellbeing. Self-forgiveness has been given considerable attention and it appears that it may be as, if not more, important as forgiving others in relation to health and wellbeing (4). Indeed, self-forgiveness has been related to multiple health behaviours and outcomes, such as anxiety (5), depression (6), coping factors, and health behaviours (7), as well as, conditions such as eating disorders and alcoholism, and chronic problems such as pain or cancer (8).

Fibromyalgia (FM) is a syndrome of unknown aetiology characterised by widespread pain, fatigue, sleep alterations, and decline in physical functioning (9). Special importance is given to emotional factors related to FM, mainly mood disturbances, anxiety and stress (10). Individuals suffering from FM need to adapt to a chronic condition that exerts an overwhelming influence on their lives (11).

Recently, Offenbäecher *et al.* (12) compared a sample of FM patients and normal controls and showed that FM patients had lower forgiveness of others and self-forgiveness as compared to controls. Specifically, when compared with forgiveness of others, self-forgive-

ness shows a more prominent healthy correlation with anxiety, depression and mental health (4). Notably, Offenbäecher *et al*. (12) did not examine specific measures of FM symptoms and impacts in their FM cohort. Consequently, the direct connection between forgiveness of others and self-forgiveness with the impact of FM, above and beyond mental and physical health, was not able to be examined.

Although forgiveness of others, and more so, self-forgiveness are indeed relevant to FM-related mental and physical health consequences, there are several important issues to consider, especially when attempting to understand the utility of self-forgiveness for the impact of FM (13). First, self-forgiveness needs to be defined clearly (14). Webb *et al*. (13) showed the potential downside of mistaking self-forgiveness – which involves experiencing regret, expressing remorse, apologising, making amends, and committing to improved future behaviour – with pseudo self-forgiveness which may be little more than indulgence in narcissism or ego protection. People who are prone to forgive themselves can be self-centered, insensitive narcissists, and have been shown to be less likely to change their chronic habitual unadaptable behaviours. Pseudo-self-forgiveness can be ugly (15). Consequently, self-forgiveness must be clearly delineated from pseudo-self-forgiveness. Positive self-forgiveness has been proposed to be renamed self-acceptance (16), and other genuine aspects, such as reconciliation, commitment to change and recognition of human condition, are accepted as genuine self-forgiveness versus pseudo-self-forgiveness, characterised by condoning, excusing or denying the transgression (13).

Because there can be easy confusion between self-forgiveness and less healthy pseudo-self-forgiveness and other similar constructs commonly studied in chronic pain and FM, such as acceptance, catastrophising, and coping, it could be useful to re-define the qualities of self-forgiveness that contribute to reducing the impact and severity of FM. However, as far as we know, there are no studies that have addressed this goal. Therefore, the aim of this study is (i) to explore the relationship of self-forgiveness with the impact and severity of FM and (ii) to explore the relationship of self-forgiveness and conceptualisation of self-forgiveness with the principal constructs related to pain and FM, such as acceptance, catastrophising and coping. To our knowledge, there are no studies highlighting these relationships; thus, this study contributes to the refinement of the definition of self-forgiveness and its relation to FM symptoms and impacts.

Methods

Study design and patients

This study was an exploratory evaluation of self-forgiveness, clinical variables and constructs related to the psychological status of FM patients.

Patients were recruited from an outpatient rheumatology unit of a tertiary care teaching hospital and were invited to participate in the study if they fulfilled the following criteria: (a) met the American College of Rheumatology (ACR) 2010 research classification criteria for FM (17, 18), confirmed by a rheumatologist; (b) were a minimum of 18 years of age; (c) showed adequate reading comprehension; (d) were able to use a computer; and e) were able to sign an informed consent form. Patients were excluded if they (a) had any mental disorder treated by a psychiatrist, (b) had received prior or were receiving psychological treatment for FM or other chronic pain syndromes from a clinical psychologist, or (c) were scheduled for surgery in the following 3 months. Participants were 228 FM patients. All the measures were collected at baseline.

The Clinical Research Ethics Committee of "Gregorio Marañón Hospital", Madrid, Spain, approved the study protocol. Informed consent was obtained from each subject.

Measures

The following sociodemographic data were assessed: age, sex, religiousness and spirituality, marital, work and educational status (middle school, high school, college). Two questions related to religiosity (How religious are you?) and spirituality (How spiritual are you?) were measured on a scale from 0 (no religious/spiritual at all) to 10 (extremely religious/spiritual). The duration of FM and a wider period as generalised pain suffering were assessed at the beginning of the study.

Self-forgiveness was assessed using the scale developed by Mauger *et al*. (2). This assessment is a 15-item scale related to attitudes and situations concerning trait forgiveness of self (FS). Each item was responded to on a 6-point Likert-type scale from 1 (strongly disagree) to 6 (strongly agree). The wording of the items was generally in the direction of higher scores indicating less forgiveness (*e.g*. "I find it hard to forgive myself for some of the things that I have done"). The scale scores range from 15 to 90. Lower scores indicate higher self-forgiveness. Since there is no Spanish version of this scale, a back-forward translation from English was performed following the recommended procedures (19, 20). The internal consistency of the original Mauger self-forgiveness scale was 0.82, whereas for the present study, this measure was 0.89. Mauger reported correlations between self-forgiveness and demographic variables (age=-.06; education=-.04). We obtained similar correlations from the Spanish scale (-.07 and -.06, respectively). The translation to Spanish appears to be similar to the original English version.

The ACR (2010) criteria were evaluated through the Spanish version of the Fibromyalgia Survey Questionnaire (FSQ) (21). This instrument is a Spanish adaptation of the Widespread Pain Index (WPI) and the Symptom Severity Scale (SSS). The combination of both assessments constitutes a fibromyalgianess scale. To fulfil the ACR (2010) criteria, patients must meet the following standards: (a) WPI≥7 and SSS≥5 or WPI between 3-6 and SSS≥9; (b) symptoms present at a similar level for at least 3 months; and (c) absence of other disorders that would explain pain.

The Combined Index of Severity in Fibromyalgia (ICAF) is a questionnaire that allows the classification of patients by severity in clinical practice. This analysis is a self-report questionnaire of 59 items constructed with the most common clinical manifestations of FM

(22). The ICAF questionnaire offers total scores, where higher scores indicate a more severe disease. This questionnaire also provides four factors: emotional, physical (pain, fatigue, sleep quality and functional capacity), active coping, and passive coping. Similar to the total score, higher scores on each factor indicate greater severity, with the exception of the active coping factor, where higher scores indicate a better way to cope with the disease. Raw scores were transformed into normalised T scores with a mean of 50 and a standard deviation of 10 related to the sample studied. The weight of each factor in the total score is different. The emotional factor constitutes 66% of the total score, the physical factor is approximately 23%, and coping factors have a relatively small weight, with 6% for each (22).

The Fibromyalgia Impact Questionnaire (FIQ) (23, 24) is a self-report questionnaire designed to evaluate the impact of the FM on the life of the patient. This 10-item questionnaire is widely used and covers the principal areas of interest, including physical functioning, pain, sleep, mental health, and fatigue. The score ranges from 0 to 100, where higher scores indicate a more severe impact of the disease.

The Short Form 36 Health Survey (SF-36) (25, 26) is a generic instrument used to assess health-related quality of life. It is a self-report survey of 36 items grouped into eight dimensions: physical functioning, physical role, body pain, general health, vitality, social functioning, emotional role and mental health. The score ranges from 0 to 100 for every scale, where higher scores indicate better health.

The Chronic Pain Acceptance Questionnaire (CPAQ) (27) is a 20-item inventory measuring acceptance of pain. The measure has two scales: activity engagement and pain willingness, and a single total score. Participants rate items on a scale from 0 (never true) to 6 (always true), and the possible range of the total score is 0 to 120. Higher scores indicate greater acceptance. We used the Spanish version of the CPAQ (28).

The Pain Catastrophizing Scale (PCS) (29) is a 13-item scale used to assess pain catastrophising. Participants rated the frequency of 13 negative pain-related thoughts and feelings on a 5-point Likert scale from 0 (not at all) to 4 (all the time). The range of scores is 0 to 54. Higher scores indicate greater catastrophising. We used the Spanish version of the PCS (30).

Data analysis

Statistical analysis was conducted using SPSS v. 24. A descriptive analysis was performed for all the variables studied. To explore the relationship between FS and these variables, a bivariate correlation analysis was performed. An exploratory factor analysis using unweighted least squares (ULS) with varimax rotation was used to determine the existence of latent variables that could explain the different variables studied: clinical criteria (SSS and WPI), impact of FM (FIQ) and its severity (ICAF) and psychological constructs (PCS, CPAQ, SF-36 and FS). To avoid overestimating the number of factors to retain (31), we used the scree test (32).

A decision-tree analysis was conducted using the Classification Tree module of SPSS 24 to identify an optimal algorithm for relating clinical and psychological variables to FS. This technique uses an algorithm to determine the strongest relationship between predictors and the outcome variable at each level of the tree. Analysis by classification trees is a basic data-mining technique used in different disciplines (33, 34). The dependent variable (criterion) was FS, and the independent variables were all the other variables studied. The clinical criteria (SSS and WPI), the impact (FIQ) and severity (ICAF) of FM and the psychological construct studies (PCS, CPAQ, SF-36 and FS). We used the chi-squared automatic interaction detector (CHAID). Correction for multiple comparisons was controlled through Bonferroni adjustments. The minimum parent and child nodes were set at 50 and 25, respectively (35). Model validation was performed to evaluate the predictive accuracy and generalisability. A random division of the sample was conducted according to the following recommendations (36): a "training sample" of 70% of the full sample and a "validation sample" (30%) used to test the classification accuracy of the decision tree generated.

Table I. Characteristics of the sample.

Characteristic	n = 228
Age (y)	
Mean (SD)	47.05 (9.19)
Sex (n)	
Female	228 (100%)
Male	0 (0%)
Religion (n)	
Christian	175 (76.8%)
Muslim	4 (1.7%)
Other	5 (2.2%)
No religion	44 (19.35%)
Marital status (n)	
Single	60 (26.3%)
Married	130 (56.8%)
Widow	2 (1.1%)
Separated, divorced	36 (15.8%)
Work status (n)	
Employed	108 (47.3%)
Unemployed	55 (24.2%)
Homemaker	19 (8.4%)
On leave	22 (9.6%)
Retired	24 (10.5%)
Educational status (n)	
Low (middle school)	48 (21.1%)
Medium (high school)	98 (43.2%)
High (college)	82 (35.7%)
Duration of illness (y)	
FM	
Mean (SD)	7.2 (8.82)
Generalised Pain	
Mean (SD)	11.4 (13.51)
How religious are you?	
Mean (SD)	3.06 (0.72)
How spiritual are you?	
Mean (SD)	3.90 (0.94)

n: number of cases; y: years, SD: standard deviation, %: percentage.

Results

Sample characteristics

The characteristics of the sample are shown in Table I. The participants were all females, 47.0 years old on average (standard deviation [SD] = 9.2), self-reported as married (56.9%), were employed (47.3%), and with a medium educational status (high school) (43.2%). A high percentage (80.7%) of the participants had a religious affiliation, and these individuals were more spiritual (mean=3.9; SD=0.94) than religious (mean=3.06; SD=0.72). These participants were diagnosed with FM an average of 7.2 years prior to the

Table II. Mean scores (range; SD).

Questionnaire	Scores
SSS	8.36 (2-12; 2.13)
WPI	13.09 (3-19; 4.11)
FS-PSD	21.46 (7-30; 5.51)
FIQ	54.63 (12.76-92.68; 16.09)
ICAF total score	41.47 (25.54-62.77; 6.91)
ICAF physical	44.04 (17.58-62.09; 10.24)
ICAF emotional	45.26 (28.21-74.01; 9.31)
ICAF active coping	53.54 (26.71-73.71; 10.80)
ICAF passive coping	48.49 (24.23-72.91; 10.93)
SF-36 total score	38.43 (7.13-83.69; 16.34)
PCS	21.91 (0.00-50.00; 12,21)
CPAQ-20 total score	54.52 (13.00-118.00; 18.08)
Forgiveness of self	35.84 (17.00-70.00; 1.13)

SSS: Symptom Severity Scale; WPI: Widespread Pain Index; FS-PSD: Fibromyalgianess Scale-Polysymptomatic Distress Scale; FIQ: Fibromyalgia Impact Questionnaire; ICAF: Combined Index of Severity of Fibromyalgia; SF-36: Short Form 36; PCS: Pain Catastrophising Scale; CPAQ: Chronic Pain Acceptance Questionnaire.

study (SD=8.8), and generalised pain was present for 11.4 years (SD=13.5).

FM, severity measures and psychological constructs

Table II shows the scores related to the following FM classification criteria: SSS, WPI and FS. The FS-PDS score is the sum of the SSS and the WPI and has also been called the Polysymptomatic Distress Scale (PDS). The mean SSS score was 8.3 (SD=2.1), and the WPI score was 13.1 (SD=4.1). The severity measures in Table II are the FIQ score (mean=54.6; SD=16.1) and ICAF total score (mean=41.5; SD=6.9). SF-36 scores are also shown. The mean SF-36 total score was 38.43 (SD=16.34). The PCS, CPAQ, and FS values are also shown.

Correlation analysis

A correlation analysis was performed between the FM clinical variables (SSS and WPI), the measures of the severity and impact of FM (ICAF and FIQ), and several psychological constructs as measured by PCS, CPAQ, and FS. Table III shows the correlations. FS (unforgiveness) was negatively related to ICAF Active Coping (r=-0.41, $p<0.01$) and CPAQ (r=-0.38, $p<0.01$). These effects were medium-sized. FS was related positively to ICAF emotional (r=0.56, $p<0.01$) and PCS (r=0.56, $p<0.01$) with a large-effect. The correlations between FS and age (r=0.02), duration of FM (r=0.03) and duration of generalised pain (r=-0.10) were not statistically significant.

Exploratory factorial analysis

The exploratory factor analysis was performed with a Kaiser-Meyer-Olkin (KMO) value of 0.88. Two factors explaining 52.4% of the variance were obtained. The first factor explains 41.2% of the variance and is related to the physical impact of FM, followed by lower quality of life and acceptance. The second factor explains 11.2% of the variance and is related to the emotional pain of FM, reduced coping activities, catastrophising, and reduced FS. Table IV shows the factor loadings.

Decision-tree analysis

Using FS as a dependent or criteria variable, the decision-tree analysis showed a first node with emotional factor as a predictor ($F_{(1, 226)} = 50.225$, $p<0.001$). A second-level node, under the presence of the ICAF Emotional, showed two additional predictors: CPAQ ($F_{(1, 87)}=15.494$, $p<0.001$) and PCS ($F_{(1, 69)}=13.101$, $p<0.001$). The model was able to correctly classify 87.3% of the sample. Validation of the model showed 91.2% correct classification for the "training sample" and 88.7%

Table III. Correlations between FM clinical variables and psychological constructs.

	1	2	3	4	5	6	7	8	9	10	11	12
1 Religiosity	–											
2 Spirituality	0.39**	–										
3 SSS	0.08	-0.05	–									
4 WPI	0.22**	-0.10	0.49**	–								
5 ICAF physical	0.12	-0.06	0.58**	0.48**	–							
6 ICAF emotional	-0.06	-0.22**	0.34**	0.20**	0.43**	–						
7 ICAF active coping	-0.14*	0.13	-0.18**	-0.05	-0.23**	-0.52**	–					
8 ICAF passive coping	0.01	0.19**	0.13	0.26**	0.23**	-0.14*	0.34**	–				
9 FIQ	0.09	-0.07	0.45**	0.49**	0.71**	0.53**	-0.30**	0.22**	–			
10 PCS	-0.07	-0.29**	0.42**	0.32**	0.42**	0.54**	-0.32**	0.06	0.48**	–		
11 CPAQ	0.17**	0.20**	-0.44**	-0.28**	-0.46**	-0.49**	0.32**	-0.15*	-0.53**	-0.61**	–	
12 SF-36	0.01	0.09	-0.43**	-0.41**	-0.50**	-0.58**	-0.38**	-0.09	-0.65**	-0.51**	0.51**	–
13 Forgiveness of self	-0.11	-0.27**	0.28**	0.07	0.23**	0.56**	-0.41**	-0.20**	0.32**	0.56**	-0.38**	-0.34**

*$p<0.05$. **$p<0.01$.
SSS: Symptom Severity Scale; WPI: Widespread Pain Index; FIQ: Fibromyalgia Impact Questionnaire; ICAF: Combined Index of Severity of Fibromyalgia; SF-36: Short Form 36; PCS: Pain Catastrophising Scale; CPAQ: Chronic Pain Acceptance Questionnaire.

Table IV. Factor loadings of FM clinical variables and psychological constructs.

Variables	Factor 1	Factor 2
SSS	**0.577**	0.248
WPI	**0.635**	0.004
ICAF physical	**0.752**	0.199
ICAF emotional	0.322	**0.748**
ICAF active coping	-0.097	**-0.645**
ICAF passive coping	0.449	-0.326
FIQ	**0.766**	0.316
PCS	-0.479	**0.579**
CPAQ	**-0.558**	-0.442
SF36	**-0.592**	-0.460
Forgiveness of self	0.126	**0.702**

SSS: Symptom Severity Scale; WPI: Widespread Pain Index; FIQ: Fibromyalgia Impact Questionnaire; ICAF: Combined Index of Severity of Fibromyalgia; SF-36: Short Form 36; PCS: Pain Catastrophising Scale; CPAQ: Chronic Pain Acceptance Questionnaire.

correct classification for the "validation sample" (Fig. 1). There are five final groups covering the 100% of the sample (29.9, 25.4, 13.6, 10.9, 20.2).

Discussion

Considering the correlation from a medium to large effect size, two findings regarding the relationship between FS and the clinical and psychological constructs studied are evident: a) a positive association with active coping and acceptance and b) a negative association with quality of life, emotional factors and catastrophising. There are no specific studies related to FS acceptance and coping. Nevertheless, there is wide recognition of the role of acceptance as a component of genuine FS (13). The negative relationship among FS, negative emotional factors and quality of life is congruent with studies on FM (12) and breast cancer (37). A high FS is associated with acceptance and active coping. This strategy is a better way to address FM problems than is low FS, which is associated with negative emotions, low quality of life and catastrophising.

The exploratory factor analysis shows an interesting way of grouping the FM clinical variables and psychological constructs. The main factor could be physical and does not include FS. This factor covers the number of pain areas, symptoms associated with FM, severity of FM (ICAF Physical), impact of FM (FIQ) and a negative presence of acceptance and quality of life, showing a high impact of FM. The second factor is an emotional factor. A lack of FS is grouped with negative emotions, and a deficit of active coping is associated with a high level of catastrophising. FS will be useful for understanding a group of patients with high levels of emotional impact, catastrophising and reduced active coping.

Several studies support part of the structure of the factors obtained. Viane *et al*. (38) showed that catastrophising has no effect on physical wellbeing, consistent with the presence of

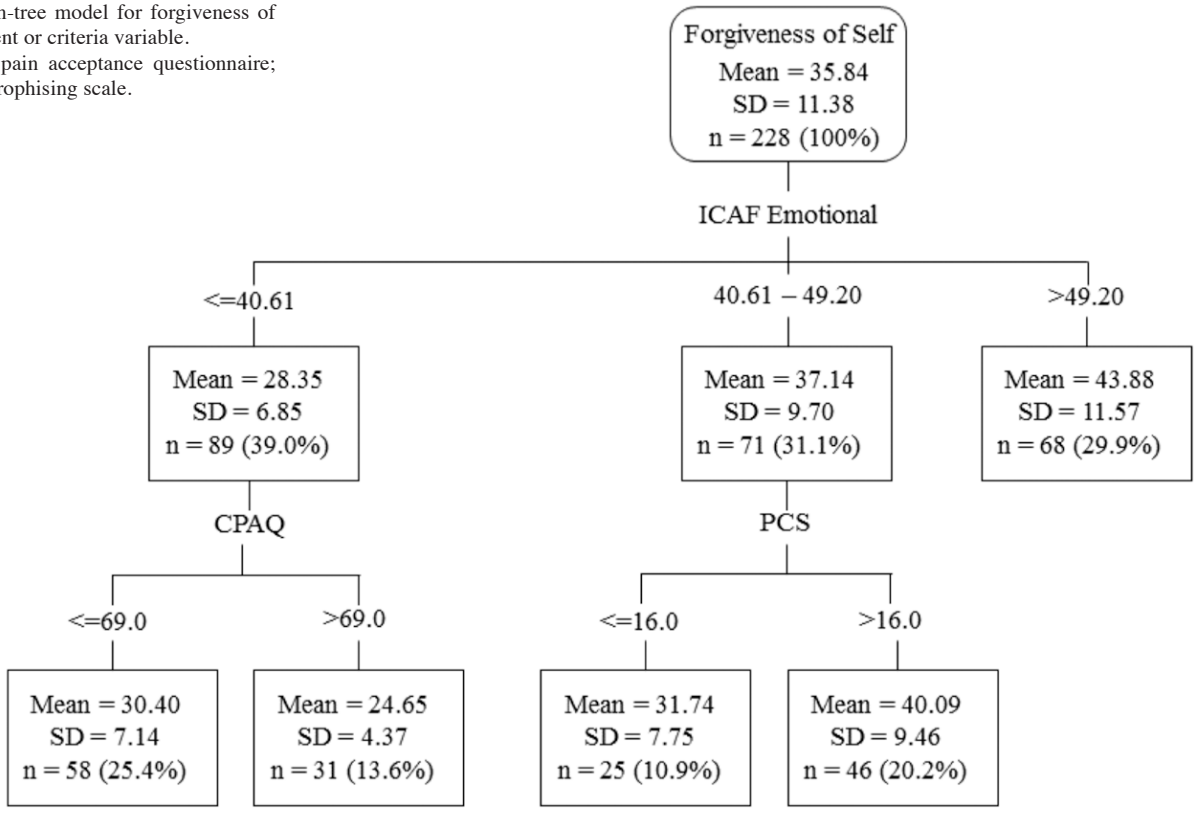

Fig. 1. Decision-tree model for forgiveness of self as a dependent or criteria variable.
CPAQ: chronic pain acceptance questionnaire; PCS: pain catastrophising scale.

catastrophising in the emotional factor instead of the physical factor. Additionally, Lami *et al*. (39) found that higher levels of catastrophising and lower levels of coping behaviour contributed to depression in FM patients. This idea is consistent with our second factor. There are no studies on the relationship among FS, acceptance and catastrophising, but it is reasonable that FS is closely related to emotional factors, psychological distress (8, 40), and catastrophising (39).

The acceptance component belongs to the physical factor. This association characterised acceptation as a reduction of cognitive control (38). Acceptance is closer to the physical impact of FM than to cognitive (catastrophising) and distress, consistent with the study by Lami *et al*. (39), where acceptance but not catastrophising had a significant influence on disability. Additionally, Esteve *et al*. (41) found that acceptance decreased functional impairment. The absence of FS in this group could indicate the cognitive or belief nature of this construct closely related to catastrophising but distant from physical aspects.

The decision-tree model obtained for FS shows five groups. (1) The group with the least FS (29.9%) also had a higher score on negative emotions. No other variables are relevant for this group. (2) The group with high FS (13.6%) had lower negative emotions and higher acceptance. It is possible that better emotional situations allow psychological flexibility associated with FS (42). (3) With a similar emotional situation, reduced acceptation is related to a lower FS (25.4%). Thus, acceptance could be key to increasing or reducing FS in a similar emotional situation. (4) When the emotional scores increase, FS is reduced by the influence of catastrophising. (5) With low levels of catastrophising, the level of FS is high (10.9%), and with high levels of catastrophising, the FS level is lower (20.2%). In summary, the emotional variable is the main factor involved in understanding FS. When the negative emotional scores are lower, acceptance is relevant, and when these scores are higher, catastrophising is relevant.

FS is useful for understanding the situation of FM patients. A notable lack of FS indicates a problem with health aspects related to this syndrome, which is consistent with the general knowledge about this subject (6) and FM patients (8). This influence is related first to emotional factors. No cognitive, behavioural or clinical factors, such as the number of pain areas and symptoms associated with FM, seems relevant in our study. The main psychological constructs of pain, acceptance and catastrophising (43), are relevant at two different moments. In one moment, acceptance could require a low negative emotional status. It is possible that acceptance reduces the emotional negative content because of decreased avoidance. In an alternative view, because of the correlative nature of the relationship, reducing negative emotion could facilitate acceptance. High acceptance in this case increases FS (the best FS), which means that acceptance improves FS and constitutes the positive component of FS (16).

In another moment, catastrophising is relevant to a medium negative emotional level. It is possible that the cognitive set of rumination, magnification and hopelessness requires some time to produce an effect. The FS diminishes in this situation. Notably, FS is not related to objective physical variables such as WPI or SSS. Even FS has no relationship with FIQ, which represents specific aspects of FM. FS is related to the two more important psychological constructs in pain research: acceptance and catastrophising.

It is important to note the limitations of this study. The present study was a correlational one, so it is not possible to know the directions of the relations outlined. Is FS the result of distress or vice versa? The size of the sample was acceptable for correlational analysis but could be larger for multivariate analysis. Our study did not show some of the potential downsides of FS pointed out by Web *et al*. (13). People with high FS were likely to have increased acceptation, which prevent the maintaining problematic behaviours. Nevertheless, the lack of FS was related to an increase in distress and catastrophising. We did not find a significant correlation between FS and religiosity, and there was no interaction between religion and the possibility of having space to forgive oneself. In contrast, we observed a positive correlation between spirituality and FS.

Despite the limitations of the present study, the insights gained regarding FS and its relevance to patients with FM is important, as this is the first study to consider FS in conjunction with emotionality, acceptance, and catastrophising. The joint influences of these variables on the experience of FM should not go overlooked by healthcare professionals working with these patients. Subgroups clearly specified in this study may benefit from systematically working through issues of self-forgiveness and this may in turn lighten burdens of catastrophising and encourage acceptance. Future work should confirm these findings, and include samples of men and women and samples from other cultures to ensure the robustness of these findings. If the role of FS in the psychosocial experience of FM proves to be consistent, healthcare workers may want to consider efficient and meaningful ways of promoting self-forgiveness in FM patients toward the end of better whole-person care.

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