

Assessing compassionate love in the Mexican couple**Evaluando el amor compasivo en la pareja mexicana****Avaliando o amor compassivo no casal mexicano**

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Abstract

Compassionate love is a selfless feeling that focuses on the good of others. However, despite the popularity of the term, there is still no instrument of measurement for the Mexican population within the romantic context. For this reason, this research aimed to design and validate an instrument that adequately integrates the construct of compassionate love within couple relationships in a sample of 900 participants from Mexico City. An exploratory factor analysis was carried out to examine the factor conformation. The scale comprised 33 items grouped into two factors that explained 61.96 % of the variance, a Cronbach's Alpha coefficient of .973 and Omega reliability of .976. The findings coincide with the foundations of the theoretical perspectives of the construct, and it represents a conceptual, methodological, and cultural contribution to the study of the variable in the romantic context.

Keywords: compassionate love, empathy, couple, measurement, Mexico

Resumen

El amor compasivo es un sentimiento desinteresado que se centra en favor del bien del prójimo. Sin embargo, a pesar de la popularidad del término, aun no existe un instrumento para su medición en la población mexicana dentro del contexto romántico. Por dicha razón, el propósito de esta investigación fue diseñar y validar un instrumento que integre adecuadamente el constructo del amor compasivo dentro de las relaciones de pareja en una muestra de 900 participantes de la ciudad de México. Se llevó a cabo un análisis factorial exploratorio con el fin de examinar la conformación factorial del instrumento. La escala se conformó por 33 reactivos agrupados en dos factores que explicaron el 61.96 % de la varianza, un coeficiente alfa de Cronbach de .973, una confiabilidad Omega de .976. Los hallazgos coinciden con fundamentos de las perspectivas teóricas del constructo y en su conjunto representa una contribución conceptual, metodológica y cultural al estudio de la variable en el contexto romántico.

Palabras clave: amor compasivo; empatía; pareja; medición; México

Resumo

O amor compassivo é um sentimento altruísta que se concentra no bem dos outros. No entanto, apesar da fama do termo, ainda não existe um instrumento de medição para a população mexicana dentro do contexto romântico. Por esse motivo, o objetivo desta



pesquisa foi projetar e validar um instrumento que integre adequadamente o construto de amor compassivo nas relações de casal em uma amostra de 900 participantes da Cidade do México. Foi realizada uma análise fatorial exploratória para examinar a conformação fatorial. A escala foi composta por 33 itens agrupados em dois fatores que explicaram 61.96 % da variância, um coeficiente alfa de Cronbach de .973 e uma confiabilidade ômega de .976. Os achados coincidem com os fundamentos das perspectivas teóricas do construto e, como um todo, representam uma contribuição conceitual, metodológica e cultural para o estudo da variável no contexto romântico.

Palavras-chave: amor compassivo, empatia, casal, medição, México

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Love has been a topic of great interest throughout the centuries; with this, aspects of the said concept have emerged, as is the case of the concept of compassionate love, also called altruistic love; inspired by the Buddhist and Eastern cultural approaches, where compassion is understood as a feeling of kindness and the desire to alleviate the suffering of others (Fehr & Sprecher, 2009; Perlman & Sánchez Aragón, 2009). According to Fehr et al. (2009), the characteristics that this type of love presents are born from some religious norms and doctrines. However, they are not directly related to any religion.

The term compassionate love emerged for the first time in a meeting held by the World Health Organization, where research groups sought to develop a tool to assess the quality of life in different cultures (Fehr et al., 2009). As a result, some scientists joined forces in the creation and establishment of the term, concluding that compassionate love is defined as a feeling of love that focuses on the good of others in a disinterested and dedicated way, emphasizing care, appreciation, and respect for the receiver; therefore, this type of love promotes the most significant social good (Underwood, 2002) and fosters the development and improvement of others (Fehr et al., 2014; Virat et al., 2018).

For their part, Sprecher and Fehr (2005) define compassionate love as a set of attitudes and behaviors focused on care, concern, tenderness, support, help, and understanding towards other people in the close social group such as friends and family, or distant, such as strangers and society in general. This type of love is often generated by a perception that the other person is in danger, which differentiates compassionate love from other types of love, such as passionate or romantic (Neto & Wilks, 2017). Inherent in this love is a free choice on the part of the individual since he or she has the will to act with love and dedication, such as the need for the person to know and understand in advance the needs and feelings of the other in a responsive and helpful manner (Fehr et al., 2014).

The model established by Underwood (2002, 2009) explains very well what was mentioned above since it specifies the antecedents, the motivational factors, and the consequences of compassionate love. The antecedents include cultural, social, situational, biological, personality, and upbringing history variables. For example, it is argued that a safe and nurturing environment is more likely to elicit compassionate love responses from a person. Likewise, another model component is the motivation that the person has when

expressing compassionate love. Her motives must focus on the good of the other without seeking any contribution. Thus, the third component of the model, called the consequences, makes it possible to demonstrate the actions generated by compassionate love (Fehr et al., 2014).

On the other hand, previous research has shown that compassionate love correlates with prosocial behaviors such as altruism, empathy, sympathy, social support, or volunteering (Sprecher et al., 2007). In this sense, altruism and compassionate love are very similar; however, they differ in the sense that altruism performs works and actions in favor of others without receiving anything in return, but at no time does it show a feeling of love towards the person who benefited (Omani, 2011). Likewise, empathy and compassionate love are also associated; however, the fundamental difference between these is that the first implies a feeling where it is possible to perceive or experience what the other person is feeling; while the second also includes the motivation to provide help (Sinclair et al., 2016). That is, compassionate love is not only an emotional response but includes taking actions that alleviate the suffering of others (Fehr & Sprecher, 2013; Fehr et al., 2014). Furthermore, there are differences between compassionate love and the concept of compassion, where the latter does not focus on actions to promote the growth of another person, nor does it necessarily require the level of commitment to others as compassionate love is evidenced (Fehr et al. al., 2014; Goetz et al., 2010).

From all that has been mentioned, the need to measure this construct has become evident, so in 2002 Underwood evaluated it with only two items, which were taken from the Daily Spiritual Experience Scale carried out by Underwood and Teresi (2002), that contained items such as: "I feel disinterested in others" and "I accept others even when they do things that I think are wrong".

Subsequently, Sprecher and Fehr (2010) created a scale that sought to evaluate multiple elements within compassionate love, where the close social group (family and friends), the romantic bond (romantic partner), and strangers (society) were considered. In constructing the Compassionate Love Scale (CLS), these authors adapted some elements of existing measures: the contribution of Underwood (2002), the Hendrick and Hendrick Love Attitudes Scale (1986), and Rubin's Scales of Love and Affection (1970).

Finally, Neff and Karney's (2005 in Fehr et al., 2014) assessment of compassionate love in couples reflects a positive global conceptualization and an understanding of the particular strengths and weaknesses of the partner. In this instrument, the participants are asked to evaluate the instrument in terms of global qualities (e.g., being a good person) and their more specific characteristics and abilities (e.g., intelligence). However, in the approach of these authors, the scale evaluates more indirectly. It focuses specifically on the perceptions of the global and specific traits of the romantic partner and not on the variable in question.

Within the context of the couple, Berscheid (2010) states that in this type of bond, compassionate love is confirmed, along with passionate love, companionship, and attachment, which plays an essential role in predicting the satisfaction and stability of the dyadic relationship. However, while romantic love is driven by hormones, bodily reactions, and a high motivation to fulfill one's needs and desires, compassionate love is not always presented that way (Sprecher et al., 2007); since it is based on a more mature awareness and understanding of the spouse's strengths and weaknesses, encompassing caring and altruistic attitudes that allows one to value and put the other's needs before one's own (Fehr et al., 2009).

Neto (2012) reveals that people who perform behaviors focused on compassionate love perceive more significant benefits and gains for themselves, such as higher self-esteem, positive morale, self-awareness, and spirituality, in addition to playing an essential role in predicting satisfaction and relational stability (Neto & Wilks, 2017). It should be noted that this will depend on the objectives, aspirations, and achievements that the person has at that precise moment. However, it is mentioned that the reception of love and its components generate feelings of happiness, satisfaction, and complacency (García, 2002).

Based on all of the above and the lack of a measure of compassionate love in Mexico, this variable deserves to be the focus of study within the discipline of Social Psychology, and particularly in the area of couple relationships, since it has been demonstrated its value in the infrastructure of the couple, thereby providing the strengthening of the bond, allowing the expression of behaviors of maintenance, support, care, and mutual well-being, as well as generating reciprocity and commitment (Fehr & Sprecher, 2009). For these reasons, the objective of this research was to design and validate a valid and reliable instrument that adequately integrates the dimensions of the construct of compassionate love in couple relationships.

Method

Participants

We worked with a non-probabilistic sample (Hernández et al., 2006) of 900 participants from Mexico City, of which 439 were men and 460 were women, whose ages ranged between 17 and 78 ($M = 35.71$, $SD = 12.07$). Regarding schooling, 404 participants had high school studies, and 457 had a bachelor's degree. Regarding the time of living together, this ranged from one month to 36 years. Their marital status was: 35.2 % free union, 55.6 % married, and 3.7 % separated.

Instrument

The Compassionate Love Scale was designed considering the theoretical and methodological contributions of Underwood (2002) and Sprecher and Fehr (2010) that point to compassionate love as the set of selfless thoughts, feelings, and actions aimed at caring, protecting, and supporting to another person who is in an unfavorable situation, but modifying it towards the situation of a couple. Likewise, items from the one-dimensional Compassionate Love Scale by Sprecher and Fehr (2010) are included, such as: "I often have tender feelings towards ___ when he seems to be in need" and "When I hear about ___ going through a difficult time, I feel great compassion for him/her" as well as some items from Rubin (1970) such as: "I would do anything for my partner" and "If my partner feels bad, my first duty would be to cheer him up." Once a base of 35 items was generated in a Likert-type format with five response options from 1 (*totally disagree*) to 5 (*totally agree*) and appropriate for the context of the romantic relationship in the Mexican population.

Procedure and Ethical Aspects

The questionnaires were applied by trained psychology students who went to places where people could be found (shopping centers, houses, schools, universities, offices) so that they voluntarily answered the questionnaire. During the application, immediate answers were given to any sort of doubt, and the anonymity and confidentiality of the participants'

responses were guaranteed, complying with the ethical standards and principles established by the American Psychological Association (2020) that are decreed for the exercise of the profession within the field of research.

Analysis of data

For the validation of the scale, the statistical analyzes suggested by Reyes-Lagunes and García y Barragán (2008) were carried out based on the guidelines of Cronbach and Meehl (1955), which include: (a) item-by-item frequency analysis to identify errors capture and distribution of responses, (b) Student's t-test for independent samples (item by item) to estimate item discrimination, (c) Cronbach's Alpha reliability analysis of those items that discriminated, (d) exploratory factor analysis (EFA), and (e) reliability analysis with McDonald's Omega. All was done through the statistical package SPSS version 20.

Results

From the execution of each of the statistical analyses, it was observed that 33 of the 35 designed items met the criteria established by Reyes-Lagunes and García y Barragán (2008), where they were found within the bias range of -0.5 and 0.5 since it was considered that the variables were distributed in a usual way and that the extreme quartiles of each item presented statistically significant differences.

Subsequently, the reagents were analyzed using an EFA of principal components with orthogonal rotation (varimax type). Factor analysis yielded a KMO index = .981, Bartlett's Sphericity Test = 25239.795, $df = 528$, $p = .000$, and a total $\alpha = .973$. Two factors were found with values greater than one, explaining 61.96 % of the variance and moderate to moderate-high Cronbach's Alpha reliability coefficients. On the other hand, reliability analyses of $\bar{U} = .976$ were carried out for the two factors thrown (Table 1).

Table 1
Exploratory factor analysis of the Compassionate Love Scale

Emotional Support and Empathy	Factor Loadings			
I try to help my partner as much as I can	.823			
I express feelings of support, help and encouragement to my partner	.815			
My partner can trust that I will be there for him/her if he/she need me.	.807			
Naturally, the desire to take care of my partner arises in me	.793			
I try to take care of and help my partner to solve his/her conflicts	.777			
I feel happy when my partner is happy	.774			
I tend to listen patiently when my partner tells me about his/her problems.	.757			
When I see my partner sad, I feel the need to help him/her	.754			
I notice that my partner is sad even if he/she doesn't say it	.730			
I try to put myself in my partner's shoes when he/she is in trouble.	.726			
I care a lot about my partner's problems	.721			
I try to understand rather than judge my partner	.711			
I want to spend time with my partner to find ways to help enrich his/her life	.693			
If my partner needs help, I will do almost anything to help him/her	.692			
My heart goes out to my partner when he/she is not happy.	.690			
It moves me emotionally when my partner is stressed	.621			
I feel emotionally connected with my partner when he/she feels bad	.615			
I am often tender towards my partner when he/she seems to need it	.611			
I accept my partner, even when he/she does things that I consider wrong	.581			
If my partner is confused, I usually want to take care of him/her	.561			
It's easy for me to feel the pain (and joy) experienced by my partner	.546			
I worry about the well-being of my partner selflessly	.477			
No. Items = 22	$\alpha = .969$	$\Omega = .970$	$M = 3.3529$	$SD = .88868$
Altruistic Love	Factor Loadings			
I would rather suffer myself than see my partner suffer	.763			
I commit to actions that help my partner	.759			
If necessary, I am willing to sacrifice myself so that my partner can achieve their goals in life	.755			
I usually feel sorry for my partner	.721			
One of the things that gives meaning to my life is helping my partner	.679			
I feel great compassionate love for my partner	.654			
I spend a lot of time worrying about my partner's well-being	.556			
When I know that my partner is going through a difficult time, I feel compassion for him/her	.525			
I direct my attention to what can help my partner the most	.434			
I like to be kind and good with my partner	.416			
I do whatever it takes to help my partner	.408			
No. Items = 11	$\alpha = .926$	$\Omega = .928$	$M = 4.4814$	$SD = .57383$

Discussion

The purpose of this study was to operationalize the construct of compassionate love in couple relationships in Mexico and achieve an instrument with robust psychometric characteristics. Thus, a construct validity scale was obtained through the EFA, which adequately reflects the theoretical meaning of the variable and evidence of a reliable measurement since the Alpha coefficients were obtained. After this, the Omega coefficient was superior and indicative of an appropriate measurement scale, according to Fehr et al. (2009), compared to those reported by Sprecher and Fehr (2010), which was .90. Regarding the factors obtained in the measurement carried out in this research, it can be said that compassionate love is made up of two dimensions:

Emotional Support and Empathy constitute the individual's willingness to support, encourage, care, listen, understand, put himself in her place and accept the couple unconditionally. In addition to the above, this factor refers to the emotional connection and participation between the person and their partner, which gives rise to the shared experience of both positive and negative emotions. The aforementioned are elements present in the conceptualization of Sprecher and Fehr (2005) that show that compassionate love is made up of care, concern, and an orientation towards support, help, and understanding of the other, which can be experienced by a romantic partner (Neto & Wilks, 2017; Sprecher et al., 2010). The factor also manages to integrate dimensions similar to the proposal, defining it as the validation and genuine acceptance of the other, expressed through openness, receptivity, and warmth between the parties (Reis et al., 2014).

On the other hand, the factor called Altruistic Love allows to reflect on an individual's disposition to act in a good way towards his partner, as well as showing commitment and attention to provide the necessary help to improve the adverse situation in a disinterested and sacrificial way, putting himself second. This factor is closely related to the support and attention towards the loved one unconditionally. Characteristics supported by the work carried out by Reis et al. (2014) shows that compassionate love promotes the well-being of the other, even when it generates a higher cost for the person who performs it. Likewise, this is reflected in the Rubin Scale of Love and Affection, which includes the item "I would do almost anything for my partner", "If my partner feels bad, my first duty would be to encourage him", and "I would forgive to my partner for practically anything" (Rubin, 1970).

However, Neff and Karney (2009) propose that the characteristics that define compassionate love are not fully met since people who perform compassionate acts unconditionally value the other and can also obtain a feeling of happiness and satisfaction in doing it.

Previous research argues that this type of love is not entirely accurate due to the self-reward it brings from engaging in helpful acts towards others. A compassionate or empathetic person can get a lift in her own mood through the help she provides to a person who needs help. For this reason, the improvement in the person's mood can become the primary motivator to engage in compassionate and altruistic behaviors (Sprecher et al., 2007).

On the other hand, despite Berscheid's (2010) assertion that compassionate love can be experienced by a romantic partner and has important implications for relationships, research on compassionate love has focused mainly on compassionate love in non-romantic contexts (for example, family and friends, strangers, and even all of humanity (Fehr et al., 2014). For this reason, the present study on compassionate love in the sphere of the couple

is of great relevance for filling the knowledge gap on this topic and generating future lines of research regarding this concept and its applicability.

To conclude, it must be said that this research was able to fully meet its objectives, operationalizing the construct of compassionate love in couple relationships and managing to build an instrument with appropriate psychometric characteristics in the Mexican population. It should be noted that it was possible to integrate the components and characteristics of compassionate love in two dimensions with outstanding results, working with a large number of data. As a limitation, a small bank of items was proposed, which could generate, in turn, a limited number of factors. In future research, the possibility of examining this variable, including others that increase the understanding of the behavior of compassionate love, such as perceived support, empathy, or affectivity, all within the context of the couple, is raised.

On the other hand, another limitation within this study was the impossibility of evaluating by expert judges that would allow calculating the total comprehension index of the construct and understanding in the writing of the scale concerning the items developed. For future applications, it is proposed to carry out this process along with a pilot test that accounts for its general comprehension and performance.

Finally, this scale will evaluate this type of love within the romantic bond as a different dimension that integrates components such as sacrifice or selflessness, which have been little studied but are highly relevant to mediating the interactions between its members. Future research proposes to carry out a confirmatory factor analysis that provides greater robustness and validity to the scale.

References

- American Psychological Association. (2020). *Manual de publicaciones de la American Psychological Association* (4^a ed.). Manual Moderno.
- Berscheid, E. (2010). Love in the fourth dimension. *Annual Review of Psychology*, 61(1), 1-25. <https://doi.org/10.1146/annurev.psych.093008.100318>
- Cronbach, L. J. & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281-302. <https://doi.org/10.1037/h0040957>
- Fehr, B. & Sprecher, S. (2009). Prototype analysis of the concept of compassionate love. *Personal Relationships*, 16(1), 343-364. <https://doi.org/10.1111/j.1475-6811.2009.01227.x>
- Fehr, B., Sprecher, S., & Underwood, L. G. (2009). *The science of compassionate love. Theory, research and applications*. Blackwell Publishing.
- Fehr, B. & Sprecher, S. (2013). Compassionate love: what we know so far. In M. Hojjat & D. Cramer (Eds.), *Positive psychology of love*, (pp. 106-120). Oxford Press.
- Fehr, B., Harasymchuk, C., & Sprecher, S. (2014). Compassionate love in romantic relationships: A review and some new findings. *Journal of Social and Personal Relationships*. *Journal of Social and Personal Relationships*, 31(5), 575-600. <https://doi.org/10.1177/0265407514533768>
- García, M. (2002). Desde el concepto de felicidad al abordaje de las variables implicadas en el bienestar subjetivo: Un análisis conceptual. *Lecturas: Educación Física y Deportes*, 8(48), 1-6.

- Goetz, J., Keltner, D., & Simon, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin*, 136(3), 351-374. <https://doi.org/10.1037/a0018807>
- Hendrick, C. & Hendrick, S. (1986). A theory and method of love. *Journal of Personality and Social Psychology*, 50(2), 392-402. <http://dx.doi.org/10.1037/0022-3514.50.2.392>
- Hernández, R., Fernández, C., & Baptista, P. (2006). *Metodología de la investigación*. McGraw-Hill Interamericana Editores.
- Neff, L. A. & Karney, B. R. (2009). Compassionate love in early marriage. In B. Fehr, S. Sprecher, & L. G. Underwood (Eds.), *The science of compassionate love: Theory, research, and applications* (pp. 201-222). Blackwell Publishing.
- Neto, F. (2012). Compassionate love for a romantic partner, love styles and subjective well-being. *Interpersona: An International Journal on Personal Relationships*, 6(1), 23-39. <https://doi.org/10.5964/ijpr.v6i1.88>
- Neto, F. & Wilks, D. (2017). Compassionate love for a romantic partner across the adult life span. *Europe's Journal of Psychology*, 13(4), 606-617. <https://doi.org/10.5964/ejop.v13i4.1204>
- Oman, D. (2011). Compassionate love: accomplishments and challenges in an emerging scientific/spiritual research field. *Mental Health, Religion & Culture*, 14(9), 945-981. <https://doi.org/10.1080/13674676.2010.541430>
- Perlman, D. & Sánchez-Aragón, R. (2009). Compassionate Love: Concluding Reflections. In B. Fehr, S. Sprecher & L. Underwood (Eds.), *The Science of Compassionate Love Theory, Research, and Applications* (pp. 433-452). Blackwell Publishing Ltd.
- Reis, H., Maniaci, M. & Rogge, R. (2014). The expression of compassionate love in everyday compassionate acts. *Journal of Social and Personal Relationships*, 31(5), 651-676. <https://doi.org/10.1177/0265407513507214>
- Reyes-Lagunes, I. & García y Barragán, L. F. (2008). Hacia un procedimiento de validación psicométrica culturalmente relevante. In S. Rivera-Aragón, R. Díaz-Loving, R. Sánchez-Aragón & I. Reyes-Lagunes (Eds.), *La Psicología Social en México XII* (pp. 625-630). AMEPSO.
- Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality and Social Psychology*, 16(2), 265-273.
- Sinclair, L., Fehr, B., Wang, W., & Regehr, E. (2016). The relation between compassionate love and prejudice: The mediating role of inclusion of out-group members in the self. *Social Psychological and Personality Science*, 7(2) 176-183. <https://doi.org/10.1177/1948550615609736>
- Sprecher, S. & Fehr, B. (2005). Compassionate love for close others and humanity. *Journal of Social and Personal Relationships*, 22(5), 629-651. <https://doi.org/10.1177/0265407505056439>
- Sprecher, S., Fehr, B., & Zimmerman, C. (2007). Expectation for mood enhancement as a result of helping: The effects of gender and compassionate love. *Sex Roles*, 56(7), 543-549. <https://doi.org/10.1007/s11199-007-9192-6>
- Sprecher, S. & Fehr, B. (2010). Dispositional attachment and relationship-specific attachment as predictors of compassionate love for a partner. *Journal of Social and Personal Relationships*, 28(4), 558-574. <https://doi.org/10.1177/0265407510386190>

- Sprecher, S., Zimmerman, C., & Abrahams, E. (2010). Choosing compassionate strategies to end a relationship. Effects of compassionate love for partner and the reason for the breakup. *Social Psychology, 41*(2), 66-75. <https://doi.org/10.1027/1864-9335/a000010>
- Underwood, L. G. (2002). The human experience of compassionate love: Conceptual mapping and data from selected studies. In S. G. Post, L. G. Underwood, J. P. Schloss & W. B. Hurlbut (Eds.), *Altruism & altruistic love: Science, philosophy, & religion in dialogue* (pp. 72-88). Oxford University Press.
- Underwood, L. (2009). Compassionate love: A framework for research. In B. Fehr, S. Sprecher & L. Underwood (Eds.), *The science of compassionate love: Theory, Research, and Applications*, (pp. 3-25). Blackwell Publishing.
- Underwood, L. & Teresi, J. (2002). The Daily Spiritual Experience Scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioral Medicine, 24*(1), 22-33.
- Virat, M., Trouillet, R., & Favre, D. (2018). A French adaptation of the Compassionate Love Scale for teachers: Validation on a sample of teachers and correlation with teacher autonomous motivation. *Psychologie Française, 63*(3), 1-17. <https://doi.org/10.1016/j.psfr.2018.03.003>

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