Peertechz

CLINICAL GROUP

OPEN JOURNAL OF Trauma OPEN ACCESS JOURNAL

ISSN: 2640-7949 DOI: https://dx.doi.org/10.17352/ojt

Research Article

The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model

Giulio Perrotta[1]*, Vanessa Basiletti[2] and Stefano Eleuteri[3]

[1]Institute for the Study of Psychotherapy, ISP, Via San Martino della Battaglia 31, Rome, Italy

[2]Forensic Science Academy (FSA), Dipartimento degli Studi Psicologici, Via Palmiro Togliatti 11, Castel San Giorgio (Salerno), Italy

[3]Sapienza University Rome, Piazzale Aldo Moro 5, Rome, Italy,

Received: 23 August, 2023
Accepted: 07 September, 2023
Published: 08 September, 2023

***Corresponding author:** Giulio Perrotta, Institute for the Study of Psychotherapy, ISP, Via San Martino della Battaglia 31, Rome, Italy, Tel: +39 394 2108872; E-mail: info@giulioperrotta.com

ORCiD: https://orcid.org/0000-0003-0229-5562

Keywords: PHEM-2; Human emotions; Emotions; Feelings; Sentiments

https://www.peertechzpublications.org

Check for updates

Abstract

Background: The first version of the Perrotta Human Emotions Model (PHEM) responded to the need for better structuring, in a functional framework, of emotions and sentiments, giving the proper role to anxiety, according to a neurobiological perspective, in a strategic scheme, but needs structural and functional corrections.

Methods: Clinical interview, based on narrative-anamnestic and documentary evidence, and battery of psychometric tests.

Results: Statistical comparison of data obtained by administering PHEM-1 versus data obtained by administering PHEM-2 reported an R = 0.999, with $p = \leq 0.001$, as is the case when testing clinical utility by assessing it using MMPI-2-RF and PICI-2.

Conclusion: This research confirms the clinical usefulness of administering the PHEM-2, compared with the previous version, during psychotherapeutic encounters conducted according to the brief or otherwise integrated strategic approach.

Background

The technical requirement of the Perrotta Human Emotions Model (PHEM) [1]

The first version of the Perrotta Human Emotions Model (PHEM) responded to the need for better structuring, in a functional framework, of emotions and sentiments, giving the proper role to anxiety, according to a neurobiological perspective, in a strategic scheme that originated from sensations (captured through the sense organs) and evolved into perception, thanks to anxiety (understood in the functional sense) intervening as a fluidizing and activating mechanism of human cognitive processes. At this point, perception (as a reprocessing of sensation) necessarily had to confront defence mechanisms, the internal system of needs, personal constructs (experientially derived), beliefs and conditioning social influences, all the way to psychological traumas and their adaptations, whether functional or dysfunctional, before being in turn returned by the system as "subjective normative content" (or final perception). In this complicated and multiphasic process, the role of emotional states (or emotions) was central, as it was because of them that the emotional-behavioural reactions (or sentiments, in response to internal and external stimuli) occurred. Thus, the first version of the Perrotta Human Emotions Model (PHEM) was presented as an Italian response to the structural and functional criticality of the analyzed models, such as those of James-Lange, Cannon-Bard, Watson, Darwin, Ekman, Cowen-Keltner, Schachter-Singer and Mandler, which were extremely reductive in listing emotions and sentiments (a), did not take into account in an organized manner the difference between sensations perceptions, emotions, sentiments, affects, needs, and instinctual drives (b), did not emphasize the role of anxiety in the functional and dysfunctional mechanisms of emotions (c),

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

did not take into account the psychopathological implications of emotions from a dysfunctional perspective (d), and did not give enough emphasis to the difference between emotional state and emotional-behavioural reaction (e). This theoretical basis is also perfectly preserved in the second model.

The structural elements of the Perrotta Human Emotions Model (PHEM) [1]

To address the structural and functional deficiencies noted, the PHEM (in its first version) was structured according to the following assumptions:

1. *The perceptual system (or operation):* A person's Perceptual System (or Functioning) is composed of two structures: a) "the sensory area", that is, the human senses that capture the elements of external space in the form of sensations; b) "the perceptual area", that is, the processing of sensations according to a process that consists of three stages: the "elaborative moment", the "normative moment", and the "restitutive moment". In the first moment (I), the elaborative moment, the sensory signal captured by one of the human senses is transmitted following the neuroanatomical pathways according to the sense involved in the specific process; in the second moment (II), the normative one, the first elaborated perception is confronted with a whole series of psychic elements of the mind, which shape it according to them, namely, the emotions managed by the "Self" (first ego function), the defense mechanisms managed by the "Superego" (second ego function), on which then the internal system of needs, personal constructs (experientially derived), beliefs and conditioning social influences are based; in the third moment (III), the restitutive one, a new perceptual processing is thus returned with respect to the one obtained from sensations, which may be affected not only by registration errors arising from sensory distortions but also by systematic errors and psychic dysfunctional processes arising from psychopathological conditions. For these reasons, this process is always considered subjective and unique because it cannot be duplicated or repeated by another person in its final result.

2. *The role of anxiety in the perceptual process*: Generally, we discuss the role of dysfunctional anxiety in different psychopathological conditions and how it fuels them. Rarely, in the clinical setting, is the role of functional anxiety, that is, the psychophysical activation mechanism that allows us to interact with external and internal space through cognitive and adaptive activation, extolled: in fact, anxiety allows us to activate different cognitive processes, such as attention and perception; it allows us to react to external events according to adaptive attack-escape and emergent mechanisms (in the presence of a threat or danger); it allows us to put in place emotional-behavioural reactions necessary for adaptation with the external environment; it allows us to trigger adaptive cardiovascular and neurovegetative bodily mechanisms. It becomes dysfunctional only when the self (first ego function, according to the PICI-2 model) fails to manage primary emotions and these dysfunctionally hyperactivate the defence mechanisms managed by the superego (second ego function), fostering exaggerated reactions to the point of true chronic psychopathologies such as anxiety disorder and panic attacks. Therefore, in the proposed model, anxiety is not considered an emotion but reverts to being that functional and adaptive mechanism, in itself neutral, consistent with neurobiological dictates, that allows adaptation concerning the environment; in essence, the feeding of the whole circuit that becomes an enhancer of dysfunctionality and maladaptation only if such is the management of the specific basic emotion.

3. *The distinction between "emotional states" and "emotional-behavioural reactions"*: The proposed model is structured based on a continuous process that originates from sensations (captured through the sense organs) and evolves into perception, thanks to (functional) anxiety that intervenes as a fluidizing and activating mechanism of human cognitive processes. At this point, perception (as the reprocessing of sensation) is confronted in its final, restitutive version with the person's "normative content" (Self and Superego, according to the new PICI-2 theorization), which is formed from birth and over the years starting with attachment content and continuing with familial and relational patterns, defence mechanisms (which are triggered based on the 2 primary emotions), the internal system of needs, personal constructs (experientially derived), beliefs and conditioning social influences, to psychological traumas and their dysfunctional adaptations. In this process, the role of emotional states (or emotions) is central, as it is through them that emotional-behavioural reactions occur, concerning internal and external stimuli: In essence, "emotional states" (or emotions) are basic modes that our mind knows (and "installed" by default) by which we can adapt to internal and external circumstances, while "emotional-behavioural reactions" (or sentiments) are subjective emotional experiences experienced by the person due to the interaction of basic emotions with anxiety, and/or with the combination of two or more basic emotions. It is a model that ensures both the structural and functional continuity between emotions/emotional states and sentiments/emotional-behavioural reactions, but more importantly explains the complexity of emotional thinking with the possibility of experiencing (starting from one of the two basic emotions) one or more sentiments, even simultaneously, and then always coming to prefer a single pathway of expression.

4. *The distinction between "sensation", "perception", "anxiety", "emotion", "sentiments", "affection", "need", "desire", "necessity", and "instinctual instinct"*

In summary: "sensation" is the result of the interaction between the sense organ and the return of the content; "perception" is the reprocessing of the sensation, and

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

can be first-level (when the sensation is processed at the neurobiological stage) or second-level (when the neurobiologically processed sensation passes a second evaluation screen by the person's normative content, and then is returned through behaviors); "anxiety" is the circuit feeder; "emotion" is a basic mode that enables us to adapt to internal and external circumstances; "sentiments" is an emotional-behavioral reaction or subjective emotional experience experienced by the person due to the interaction of basic emotions with anxiety, and/or with the combination of feelings, again with the aim of perfecting one's adaptation; discomfort is a state of mind, such as tension or hyperactivity or hypoactivity, that occurs when the person experiences different feelings, depending on the factual situations; "affect" is a feeling of attachment to someone or something, including material ones, exclusively related to the basic emotion of pleasure and particularly (but not exclusively) to friendship and love feelings; "need" is the instinctual impulse that arises to satisfy a desire and presupposes a state of necessity that if not satisfied brings suffering and frustration; "desire" is the object of need; "necessity" is the degree of importance and impellency that need goes to satisfy; "instinctual drive (or impulse)", differing in part from the Freudian concept, is any conscious or unconscious manifestation of a need. This construct, therefore, is based on the idea that every action/behaviour arises from a need (or instinctual drive) that seeks satisfaction.

These structural elements are also retained in the second model but are modified in the part where basic emotions and feelings are distinguished in detail, for the reasons given in the next section.

The functional elements of the Perrotta Human Emotions Model (PHEM) [1]

Thus, referring back to the PICI-2 model and the role of anxiety as a natural activator and/or enhancer (and not as a basic emotion, as mistakenly believed until now), the origin of all psychopathologies, according to the model under consideration, is to be found in the dysfunctional management of one or both basic emotions (anguish and pleasure) and not in anxiety: in fact, working in psychotherapy on the basic emotions and then on the sentiments makes it possible to unblock anxiety (and not the opposite) and consequently the vicious circle that feeds the psychopathological condition. The more entrenched the problem is and the more you have not mastered your "emotional alphabet", the more complicated it will be to unravel the knot at the origin of the dysfunctional condition. Indeed, the proposed model suggests the list of 2 basic emotional states (or emotions), 14 first-level emotional-behavioural reactions (or sentiments), 42 second-level and 96 third-level, for a total of 2 basic emotions and 152 sentiments. The reason for the presence of only two basic emotions ("anguish", understood as the absence of pleasure, and "pleasure", understood as the absence of anguish) is that all of them can be traced back to these identified: fear, anger, sadness, guilt, disgust and many others derive from anguish, unlike their placement in other theoretical models where they responded to an autonomous need for emotional representation; on closer inspection, all of them originate precisely from anguish, which dysfunctionally managed gives rise to being, cascading. Just like the Freudian duality of the reality principle (conscious) and the pleasure principle (unconscious), the same pattern insists here: anguish for reality and pleasure for pleasure, where anguish is the consequence of not being able to fulfil one's desires as imagined regardless, and pleasure is the origin of the human unconscious structure, understood as the realization of whatever one wants without limits, boundaries, and consequences. The proposed model, therefore, takes into account, complementing each other, both dysfunctional and functional sentimental components; the distinction, therefore, lies in the case-by-case assessment concerning the adaptive effects of such emotional states and emotional-behavioural reactions. Thus, the paradigm underlying PHEM is to work directly on the person's emotional alphabet and analysis of his or her own emotions to intervene indirectly on the anxiety that feeds and potentiates the toxic, maladaptive, dysfunctional, and pathological pattern. These functional elements are retained for the purposes but revolutionized in the method, according to the directions found in the following paragraph.

The critical issues of the Perrotta Human Emotions Model (PHEM)

During the exercise of clinical and research activity, carried out from January 2021 to June 2023 (30 months), the application of PHEM, in its first version, demonstrated the following shortcomings:

1. ***Categorization of emotions and sentiments:*** The model identifies anguish and pleasure as two basic emotions, while all derivations are considered sentiments, subdivided into three ascending orders (first, second, and third levels); however, this approach during the clinical sessions with the recruited subjects engendered much confusion, as they had been accustomed according to the models recognized in the literature, in which dozens of emotions stand out and sentiments were relegated exclusively to those of friendship, love, and hate. This new approach therefore forced the therapist in charge to devote a session to the didactic and formative component to change the patient's cognitive plane, while still noting objective difficulties in absorbing the model from the conscious plane to the conscious plane.

2. ***The absence of separation between emotional, feeling, and behavioural profiles*:** The model identifies 2 emotions and 152 sentiments, but among them, more than 60% are complex reactions or links derived from emotions and sentiments. This approach, however, fostered resistance in therapy sessions regarding the transition between conscious and conscious planes concerning one's emotional dynamics. This is likely to have happened in that the patient to arrive at emotional maturity must first know how to recognize inner states and his or her own needs and wants, link such inner experiences with the resulting behavioral acting out, to defuse any reinforcers that maintain toxic patterns.

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

3. ***The absence of a clinically oriented framing*:** The model merely identifies by adaptive trajectories (without using this wording) emotions and sentiments, but does not also extend the analysis to related (complex) reactions and bonds, behavioural styles, and personality traits; such shortcomings made its application during clinical sessions more complicated, having to spend more time on diagnostic identification.

Based on these critical issues, the "Perrotta Human Emotions Model - version 2" (PHEM-2) was developed to meet the need to provide a structural and functional intervention on the model to enable its better application in psychotherapeutic and clinical settings.

Aims and objectives of the study

It was found that updating the Perrotta Human Emotions Model (PHEM) was an academic and clinical need worthy of further investigation, as structural and functional vulnerabilities were found to need intervention. Based on this purpose, the working group decided to pursue the following objectives: a) to refine the model presented in its current first version, based on the clinical outcomes obtained during the support, care, and psychological therapy sessions, with the patients who are part of the selected population sample; b) to test the modified model, in its second edition, during the new three follow-up sessions, stipulated in the therapeutic contract stipulated with the patients who are part of the selected population sample.

Materials and methods

The present research work drew from the materials used in drafting the first edition of the Perrotta Human Emotions Model (PHEM) [1] to make structural and functional changes. Because of these changes, a glossary of all terms used in the new model was prepared, enriching the materials of the first edition. To define the argumentative context of each of the terms used, the search engines of Treccani [2] and Zanichelli [3] were consulted, while Oxford [4] and Hoepli [5] were used for the English translation. In the Italian language, the term "sentimento" is translated into English as "feeling", however, it is preferred to use the literal archaic term "sentiment", to facilitate the use of the term "feeling" as a terminological umbrella that can group both emotions and precisely sentiments; this in the Italian-to-English translation can lead to confusion but with such specification, the error is eliminated. The methods used are three (subsequent): 1) Implementation and translation of the Perrotta Human Emotions Model (PHEM), in its second version, concerning their emotional and perceptual-cognitive experience; 2) Clinical interview, based on narrative-anamnestic and documentary evidence and the basis of the Perrotta Human Emotions Model (PHEM-2) [1] and the administration of the Minnesota Multiphasic Personality Inventory – 2 – RF (MMPI-2-RF) [6-8] and the Perrotta Integrative Clinical Interviews - 2 (PICI-2) [9]; 3) administration of a score scale from 0 to 10 (where 0 corresponds to no negative impact of the symptom and 10 corresponds to Maximum negative impact), to monitor the progress. The phases of the research were divided thus: a) remodelling the critical elements, both structural and functional, of the first edition of the Perrotta Human Emotions Model (PHEM-1); b) selection of the population sample, according to the parameters indicated in the following paragraph; c) clinical interview, with the population sample, and administration of psychometric tests; d) remodelling of the model, in second version; e) data processing following administration of the PHEM-2 and comparison of data obtained.

Setting and partecipants

The requirements decided for the selection of the sample population (inclusion criteria) are:

1. Age Range: 18 - 67 years;
2. Gender: M/F defined;
3. Sexual orientation: heterosexual;
4. Physical health and robust constitution;
5. Presence of diagnosis of personality disorder or taking psychopharmacological therapy for the manifestation of psychiatric symptoms;
6. The previous psychological course of at least 3 completed clinical sessions (3 meetings lasting about 50 minutes each), for research purposes, supported by the first author of this paper.

The following exclusion criteria were also considered:

1. Patients who underwent the clinical pathway, for research purposes, before May 31, 2022, or completed it after June 30, 2022.
2. Patients who have not withdrawn the informed consent or have not delivered it with signature, as of June 30, 2022.
3. Patients who, after the completed clinical course, suffered from psychiatric symptomatology that required psychopharmacological support or were referred to other psychological and/or psychiatric specialists.
4. Patients with foreign citizenship, not of Italian origin, and with language difficulties.

There were 140 patients included, while those excluded from the study were 218.

In the period January 2021-June 2022, PHEM-1 was administered, to the entire population sample; the same sample was then retested in the period September 2022-August 2023 with the administration of PHEM-2.

The selected setting, taking into account the protracted pandemic period (already in progress since the beginning of the present research), is the online platform via Skype and Video call WhatsApp, both for the clinical interview and for the administration.

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

The present research work was carried out from January 2021 to August 2023 (32 months).

The selected population clinical sample, which meets the requirements, is 140 participants, divided into five groups (Table 1); the following table shows individual clinical reasons (Table 2).

Results

The second edition of the Perrotta Human Emotions Model (PHEM-2)

In the second edition, the model is restructured to allow a better understanding of the emotional element of the cognitive-behavioural profile. Thus, 226 possible adaptive trajectories are identified, divided according to 2 adaptive modes (anguish and pleasure): from the first mode originate 6 emotions (guilt, disgust, frustration, fear, anger, and sadness), while from the second mode originate 4 emotions (affect, joy, interest and decency), which in turn give rise to 19 feelings for the first mode and 15 feelings for the second mode. In total, the new model identifies 2 adaptive modes, 10 emotions, and 34 feelings. For each of these, the model recognizes 226 adaptive reactions, as many as there are trajectories. Finally, for each trajectory, the model identifies 22 adaptive responses (5 for the first mode and 17 for the second) and 8 behavioural styles (4 for the first mode and 4 for the second), correlating them with 8 different functionals (4 for the first mode) and dysfunctional (4 for the second) personality traits (Table 3).

The new model lends itself to a more structured operation than the first version, which was limited only to identifying basic emotions and feelings graded in 3 levels; the new version assumes that there are 226 possible adaptive trajectories (AT), each of which originates from a factual circumstance that triggers an emotional pressure in the subject that responds with the specific trajectory; thus, each trajectory can originate from only 2 possible adaptive modes such as anguish and pleasure (AM), each of which triggers a reaction that gives rise to an emotional state (ES) and a feeling state understood as a complex evolution of emotion (SS). Accordingly, each trajectory is linked to an adaptive reaction (AR) and an adaptive response (AC), which generate certain behavioural styles (BS) in specific personality traits (PT). Take, for example, the first trajectory (AT/1): anguish (AM/1) can generate guilt (ES/1) and remorse (SS/1), triggering immolation (AR/1) and pain (AC/1), grafted into a dramatic personality framework (PT/1) and aggressive behavioural style (BS/1).

Table 1: Population sample (numerousness).

Age	Male	Female	Total
18-27	13	11	24
28-37	19	22	41
38-47	22	25	47
48-57	6	11	17
58-67	4	7	11
Total	64 (45.7%)	76 (54.3%)	140 (100%)

Table 2: Clinical reasons (numerousness).

Clinical reasons	Male_N	Female_N	Total_N
Generalized anxiety disorder (1)	11	12	23
Panic disorder (2)	10	10	20
Obsessive disorder (3)	8	10	18
Bipolarism (4)	8	9	17
Phobic - Somatic disorders (5)	7	8	15
Borderline (6)	7	8	15
Depressive-Dysthymic disorders (7)	5	7	12
Psicotic disorders (8)	3	5	8
Physical and behavioural addictions (9)	3	4	7
Narcissist disorder (10)	2	3	5
Total	64 (45.7%)	76 (54.3%)	140 (100%)

Comparison of outcomes, when administering the first (PHEM-1) and second (PHEM-2) editions of the Perrotta Human Emotions Model

To assess the clinical usefulness of PHEM-2 to the previous version, the same symptom severity rating scale (subjective rating on a 0-10 scale, scaling technique [10,11]) was administered during the penta-cycle of therapeutic sessions by the same therapist who had carried out the same intervention in the clinical group in which PHEM-1 was used. The five sessions, both during the application of PHEM-1 and PHEM-2, were conducted according to the short strategic approach therapeutic modality [12-16] and supplemented by cognitive-behavioural and dynamic correctives [17-24]. Below in the table are the values obtained, with reference graphs (Table 4, Figure 1). Statistical comparison of data obtained by administering PHEM-1 versus data obtained by administering PHEM-2 reported an R = 0.999, with p = ≤0.001.

To evaluate the clinical usefulness of PHEM-2, compared with PHEM-1, the MMPI-2-RF, and PICI-2 were repeatedly administered, obtaining the following results: a) At the MMPI-2-RF, mean scores for each scale elevated by more than 65 points decreased from 6.4% to 9.7%; b) At PICI-2, mean scores for each scale over 5/9 points elevated decreased from 18% to 27%. Statistical comparison of data obtained by administering PHEM-1 versus data obtained by administering PHEM-2 reported an R = 0.999, with p = ≤0.001.

Discussions and limits

The new updated version of the PHEM (PHEM-2) retains the main scaffolding of the first version concerning the perceptual system, the "more functional" concept of anxiety, the operational distinctions between emotions and sentiments (which then give rise to adaptive trajectories), and the central role of the adaptive modalities of anguish and pleasure, as well as sensations, perceptions, affects, needs, necessities, and instincts; however, aware that the model is dynamic in its structure and function, the noted shortcomings related to sentimental categorizations, cognitive profiles resulting from the emotional process, and the absence of a precise framing of the dysfunctional personality component were the reasons that prompted the need to update the first edition model.

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

Table 3: Table of adaptive trajectories of the Perrotta Human Emotions Model, second version (PHEM-2).

AT	AM	ES	SS	AR	AC	BS	CO
1	Anguish	Guilt	Remorse	Immolation	Pain	Aggressive	Drama
2	Anguish	Guilt	Remorse	Torment	Pain	Passive	Neurotic
3	Anguish	Guilt	Remorse	Shame	Pain	Passive	Neurotic
4	Anguish	Guilt	Regret	Repentance	Pain	Passive	Neurotic
5	Anguish	Disgust	Aversion	Antipathy	Enmity	Aggressive	Neurotic
6	Anguish	Disgust	Aversion	Indignation	Hate	Aggressive	Neurotic
7	Anguish	Disgust	Aversion	Repugnance	Hate	Aggressive	Psychotic
8	Anguish	Disgust	Aversion	Disdain	Hate	Aggressive	Psychotic
9	Anguish	Frustration	Impotence	Isolation	Pain	Passive	Psychotic
10	Anguish	Frustration	Impotence	Repression	Pain	Aggressive	Psychotic
11	Anguish	Frustration	Impotence	Withdrawal	Pain	Passive	Psychotic
12	Anguish	Frustration	Dissatisfaction	Confusion	Instability	Aggressive	Drama
13	Anguish	Frustration	Dissatisfaction	Dependence	Pain	Aggressive	Drama
14	Anguish	Frustration	Dissatisfaction	Discomfort	Instability	Passive	Neurotic
15	Anguish	Frustration	Dissatisfaction	Fixation	Pain	Aggressive	Psychotic
16	Anguish	Frustration	Dissatisfaction	Lamentation	Pain	Aggressive	Psychotic
17	Anguish	Frustration	Dissatisfaction	Idealization	Instability	Aggressive	Drama
18	Anguish	Frustration	Dissatisfaction	Illusion	Instability	Aggressive	Psychotic
19	Anguish	Frustration	Dissatisfaction	Uncertainty	Instability	Passive	Neurotic
20	Anguish	Frustration	Dissatisfaction	Greed	Pain	Aggressive	Neurotic
21	Anguish	Frustration	Dissatisfaction	Impatience	Instability	Aggressive	Drama
22	Anguish	Frustration	Dissatisfaction	Intolerance	Instability	Aggressive	Drama
23	Anguish	Frustration	Dissatisfaction	Restlessness	Pain	Aggressive	Drama
24	Anguish	Frustration	Dissatisfaction	Lust	Vacuum	Aggressive	Drama
25	Anguish	Frustration	Dissatisfaction	Opposition	Hate	Aggressive	Drama
26	Anguish	Frustration	Dissatisfaction	Denial	Pain	Aggressive	Psychotic
27	Anguish	Frustration	Dissatisfaction	Perversity	Instability	Aggressive	Drama
28	Anguish	Frustration	Dissatisfaction	Laziness	Vacuum	Aggressive	Drama
29	Anguish	Frustration	Dissatisfaction	Projection	Pain	Aggressive	Psychotic
30	Anguish	Frustration	Dissatisfaction	Regression	Vacuum	Passive	Psychotic
31	Anguish	Frustration	Dissatisfaction	Ridiculousness	Instability	Passive	Neurotic
32	Anguish	Frustration	Dissatisfaction	Flattening	Instability	Passive	Neurotic
33	Anguish	Frustration	Dissatisfaction	Cloyingness	Enmity	Aggressive	Drama
34	Anguish	Frustration	Dissatisfaction	Suspension	Vacuum	Aggressive	Drama
35	Anguish	Fear	Defiance	Anticipation	Pain	Aggressive	Neurotic
36	Anguish	Fear	Defiance	Apprehension	Pain	Passive	Neurotic
37	Anguish	Fear	Defiance	Distrust	Pain	Passive	Psychotic
38	Anguish	Fear	Defiance	Embarrassment	Instability	Passive	Neurotic
39	Anguish	Fear	Defiance	Insecurity	Vacuum	Passive	Neurotic
40	Anguish	Fear	Defiance	Fussiness	Vacuum	Aggressive	Neurotic
41	Anguish	Fear	Defiance	Ostentation	Enmity	Passive	Drama
42	Anguish	Fear	Defiance	Paranoia	Pain	Passive	Psychotic
43	Anguish	Fear	Defiance	Suspiciousness	Pain	Passive	Psychotic
44	Anguish	Fear	Defiance	Hallucination	Pain	Passive	Psychotic
45	Anguish	Fear	Defiance	Delirium	Instability	Passive	Psychotic
46	Anguish	Fear	Defiance	Disorientation	Instability	Passive	Psychotic
47	Anguish	Fear	Defiance	Despair	Pain	Passive	Drama
48	Anguish	Fear	Defiance	Incredulity	Instability	Passive	Neurotic

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

49	Anguish	Fear	Defiance	Prejudice	Enmity	Passive	Psychotic
50	Anguish	Fear	Defiance	Concern	Instability	Passive	Neurotic
51	Anguish	Fear	Defiance	Procrastination	Instability	Aggressive	Neurotic
52	Anguish	Fear	Defiance	Possessiveness	Pain	Passive	Drama
53	Anguish	Fear	Defiance	Reticence	Enmity	Passive	Neurotic
54	Anguish	Fear	Defiance	Somatization	Pain	Aggressive	Neurotic
55	Anguish	Fear	Defiance	Turbulence	Instability	Passive	Neurotic
56	Anguish	Fear	Awe	Self-harm	Pain	Passive	Drama
57	Anguish	Fear	Awe	Cowardice	Pain	Passive	Neurotic
58	Anguish	Fear	Awe	Control	Pain	Aggressive	Neurotic
59	Anguish	Fear	Awe	Refusal	Pain	Aggressive	Psychotic
60	Anguish	Fear	Awe	Hesitation	Instability	Passive	Neurotic
61	Anguish	Fear	Awe	Avoidance	Instability	Passive	Neurotic
62	Anguish	Fear	Awe	Phobia	Instability	Passive	Neurotic
63	Anguish	Fear	Awe	Jealousy	Pain	Passive	Drama
64	Anguish	Fear	Awe	Inhibition	Pain	Passive	Neurotic
65	Anguish	Fear	Awe	Panic	Pain	Passive	Drama
66	Anguish	Fear	Awe	Repulsion	Pain	Passive	Neurotic
67	Anguish	Fear	Awe	Rejection	Pain	Passive	Psychotic
68	Anguish	Fear	Awe	Bewilderment	Pain	Passive	Neurotic
69	Anguish	Fear	Awe	Lost	Instability	Passive	Neurotic
70	Anguish	Fear	Awe	Subjection	Enmity	Passive	Neurotic
71	Anguish	Fear	Awe	Terror	Pain	Passive	Drama
72	Anguish	Fear	Awe	Avarice	Enmity	Passive	Neurotic
73	Anguish	Fear	Awe	Obsession	Pain	Passive	Neurotic
74	Anguish	Anger	Astium	Wrath	Pain	Aggressive	Drama
75	Anguish	Anger	Astium	Irascibility	Pain	Aggressive	Drama
76	Anguish	Anger	Astium	Irreverence	Enmity	Aggressive	Drama
77	Anguish	Anger	Astium	Touchiness	Enmity	Aggressive	Drama
78	Anguish	Anger	Astium	Susceptibility	Enmity	Aggressive	Drama
79	Anguish	Anger	Disappointment	Bellicosity	Pain	Aggressive	Drama
80	Anguish	Anger	Disappointment	Dissociation	Pain	Aggressive	Psychotic
81	Anguish	Anger	Disappointment	Detachment	Pain	Aggressive	Drama
82	Anguish	Anger	Disappointment	Impulsivity	Instability	Aggressive	Drama
83	Anguish	Anger	Disappointment	Indifference	Vacuum	Aggressive	Psychotic
84	Anguish	Anger	Disappointment	Inertness	Vacuum	Aggressive	Neurotic
85	Anguish	Anger	Disappointment	Envy	Enmity	Aggressive	Drama
86	Anguish	Anger	Disappointment	Obstinacy	Enmity	Aggressive	Drama
87	Anguish	Anger	Disappointment	Presumption	Enmity	Aggressive	Drama
88	Anguish	Anger	Disappointment	Separation	Pain	Passive	Neurotic
89	Anguish	Anger	Disappointment	Loneliness	Vacuum	Aggressive	Drama
90	Anguish	Anger	Contempt	Arrogance	Enmity	Aggressive	Drama
91	Anguish	Anger	Contempt	Badness	Hate	Aggressive	Drama
92	Anguish	Anger	Contempt	Cynicism	Hate	Aggressive	Drama
93	Anguish	Anger	Contempt	Cruelty	Hate	Aggressive	Drama
94	Anguish	Anger	Contempt	Derision	Hate	Aggressive	Drama
95	Anguish	Anger	Contempt	Dishonesty	Hate	Aggressive	Drama
96	Anguish	Anger	Contempt	Domination	Hate	Aggressive	Drama
97	Anguish	Anger	Contempt	Indecency	Enmity	Aggressive	Drama
98	Anguish	Anger	Contempt	Ingratitude	Enmity	Aggressive	Drama

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

99	Anguish	Anger	Contempt	Disrespectfulness	Enmity	Aggressive	Drama
100	Anguish	Anger	Contempt	Mischief	Enmity	Aggressive	Drama
101	Anguish	Anger	Contempt	Penalty	Enmity	Aggressive	Drama
102	Anguish	Anger	Contempt	Pretestuosity	Enmity	Aggressive	Drama
103	Anguish	Anger	Contempt	Sarcasm	Enmity	Aggressive	Drama
104	Anguish	Anger	Contempt	Saccence	Enmity	Aggressive	Drama
105	Anguish	Anger	Contempt	Grumpiness	Enmity	Aggressive	Drama
106	Anguish	Anger	Contempt	Severity	Enmity	Aggressive	Drama
107	Anguish	Anger	Contempt	Boldness	Enmity	Aggressive	Drama
108	Anguish	Anger	Contempt	Shamelessness	Enmity	Aggressive	Drama
109	Anguish	Anger	Contempt	Violence	Hate	Aggressive	Drama
110	Anguish	Anger	Selfishness	Immorality	Hate	Aggressive	Drama
111	Anguish	Anger	Selfishness	Infidelity	Hate	Aggressive	Drama
112	Anguish	Anger	Selfishness	Intrusiveness	Enmity	Aggressive	Drama
113	Anguish	Anger	Selfishness	Manipulation	Hate	Aggressive	Drama
114	Anguish	Anger	Selfishness	Omnipotence	Hate	Aggressive	Drama
115	Anguish	Anger	Selfishness	Submission	Hate	Aggressive	Drama
116	Anguish	Anger	Selfishness	Haughtiness	Hate	Aggressive	Drama
117	Anguish	Anger	Selfishness	Vanity	Hate	Aggressive	Drama
118	Anguish	Anger	Annoyance	Agitation	Instability	Aggressive	Neurotic
119	Anguish	Anger	Irritation	Exasperation	Pain	Aggressive	Neurotic
120	Anguish	Anger	Rancor	Malevolence	Hate	Aggressive	Psychotic
121	Anguish	Anger	Rancor	Disloyalty	Hate	Aggressive	Psychotic
122	Anguish	Anger	Rancor	Revenge	Hate	Aggressive	Psychotic
123	Anguish	Anger	Resentment	Hostility	Enmity	Aggressive	Psychotic
124	Anguish	Anger	Resentment	Victimhood	Pain	Aggressive	Drama
125	Anguish	Sadness	Bitterness	Abandonment	Vacuum	Passive	Psychotic
126	Anguish	Sadness	Bitterness	Apathy	Vacuum	Passive	Drama
127	Anguish	Sadness	Bitterness	Depression	Vacuum	Passive	Drama
128	Anguish	Sadness	Bitterness	Disinterest	Vacuum	Passive	Drama
129	Anguish	Sadness	Bitterness	Pessimism	Pain	Passive	Drama
130	Anguish	Sadness	Bitterness	Loneliness	Pain	Passive	Drama
131	Anguish	Sadness	Bitterness	Devaluation	Enmity	Aggressive	Drama
132	Anguish	Sadness	Sorry	Complaint	Pain	Passive	Drama
133	Anguish	Sadness	Sorry	Patheticity	Pain	Aggressive	Drama
134	Anguish	Sadness	Sorry	Melancholy	Pain	Passive	Drama
135	Anguish	Sadness	Sorry	Homesickness	Pain	Passive	Drama
136	Anguish	Sadness	Boredom	Stagnation	Instability	Passive	Drama
137	Anguish	Sadness	Boredom	Monotony	Vacuum	Passive	Drama
138	Anguish	Sadness	Discouragement	Adviliation	Vacuum	Passive	Drama
139	Anguish	Sadness	Discouragement	Degradation	Pain	Passive	Drama
140	Anguish	Sadness	Discouragement	Disillusionment	Pain	Passive	Drama
141	Anguish	Sadness	Discouragement	Resignation	Pain	Passive	Drama
142	Anguish	Sadness	Discouragement	Remorse	Pain	Passive	Drama
143	Pleasure	Affection	Affinity	Ease	Approval	Balanced	Assertive
144	Pleasure	Affection	Affinity	Brotherhood	Membership	Available	Assertive
145	Pleasure	Affection	Affinity	Sincerity	Approval	Balanced	Assertive
146	Pleasure	Affection	Trust	Confidence	Approval	Balanced	Assertive
147	Pleasure	Affection	Respect	Fidelity	Approval	Balanced	Assertive
148	Pleasure	Affection	Estimate	Loyalty	Approval	Balanced	Assertive

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

149	Pleasure	Affection	Estimate	Recognition	Approval	Balanced	Assertive
150	Pleasure	Joy	Devotion	Abnegation	Membership	Available	Active
151	Pleasure	Joy	Devotion	Adoration	Acceptance	Available	Assertive
152	Pleasure	Joy	Devotion	Dedication	Membership	Available	Active
153	Pleasure	Joy	Devotion	Emulation	Acceptance	Available	Assertive
154	Pleasure	Joy	Devotion	Imitation	Acceptance	Available	Assertive
155	Pleasure	Joy	Proudness	Audacity	Membership	Available	Active
156	Pleasure	Joy	Proudness	Bravery	Membership	Available	Active
157	Pleasure	Joy	Proudness	Dignity	Self-love	Available	Assertive
158	Pleasure	Joy	Cheerfulness	Expectation	Happiness	Available	Active
159	Pleasure	Joy	Cheerfulness	Entertainment	Happiness	Available	Active
160	Pleasure	Joy	Cheerfulness	Euphoria	Happiness	Available	Active
161	Pleasure	Joy	Cheerfulness	Hilarity	Happiness	Available	Active
162	Pleasure	Joy	Cheerfulness	Irony	Happiness	Available	Active
163	Pleasure	Joy	Cheerfulness	Serenity	Happiness	Available	Active
164	Pleasure	Joy	Cheerfulness	Sympathy	Happiness	Available	Active
165	Pleasure	Joy	Cheerfulness	Relief	Happiness	Available	Active
166	Pleasure	Joy	Cheerfulness	Humour	Happiness	Available	Active
167	Pleasure	Joy	Infatuation	Falling in love	Mature love	Available	Active
168	Pleasure	Joy	Infatuation	Animic passion	Evolving love	Available	Active
169	Pleasure	Joy	Infatuation	Physical passion	Evolving love	Available	Active
170	Pleasure	Joy	Infatuation	Intellectual passion	Evolving love	Available	Active
171	Pleasure	Joy	Infatuation	Spiritual passion	Evolving love	Available	Active
172	Pleasure	Joy	Freedom	Altruism	Vitality	Responsible	Active
173	Pleasure	Joy	Freedom	Independence	Vitality	Responsible	Active
174	Pleasure	Joy	Pride	Reliability	Satisfaction	Responsible	Active
175	Pleasure	Joy	Pride	Ambition	Approval	Adequate	Active
176	Pleasure	Joy	Pride	Fulfillment	Satisfaction	Adequate	Assertive
177	Pleasure	Joy	Pride	Self-esteem	Security	Adequate	Assertive
178	Pleasure	Joy	Pride	Complacency	Satisfaction	Adequate	Assertive
179	Pleasure	Joy	Pride	Correctness	Satisfaction	Adequate	Assertive
180	Pleasure	Joy	Pride	Constance	Satisfaction	Adequate	Assertive
181	Pleasure	Joy	Pride	Honour	Satisfaction	Adequate	Assertive
182	Pleasure	Joy	Pride	Reputation	Security	Adequate	Assertive
183	Pleasure	Joy	Phatòs	Goodness	Benevolence	Adequate	Sensitive
184	Pleasure	Joy	Phatòs	Chastity	Faith	Adequate	Assertive
185	Pleasure	Joy	Phatòs	Clemency	Benevolence	Adequate	Assertive
186	Pleasure	Joy	Phatòs	Commotion	Approval	Adequate	Active
187	Pleasure	Joy	Phatòs	Sweetness	Benevolence	Adequate	Sensitive
188	Pleasure	Joy	Phatòs	Gratitude	Membership	Adequate	Sensitive
189	Pleasure	Joy	Phatòs	Emphasis	Benevolence	Adequate	Assertive
190	Pleasure	Joy	Phatòs	Ecstasy	Benevolence	Adequate	Assertive
191	Pleasure	Joy	Phatòs	Hope	Survival	Adequate	Assertive
192	Pleasure	Interest	Admiration	Attraction	Vitality	Available	Active
193	Pleasure	Interest	Admiration	Desire	Approval	Available	Active
194	Pleasure	Interest	Admiration	Charm	Vitality	Available	Sensitive
195	Pleasure	Interest	Admiration	Glory	Membership	Available	Assertive
196	Pleasure	Interest	Admiration	Exaltation	Vitality	Available	Active
197	Pleasure	Interest	Admiration	Sloppiness	Vitality	Available	Sensitive
198	Pleasure	Interest	Admiration	Enhancement	Attachment	Available	Assertive

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

199	Pleasure	Interest	Empathy	Routine	Mature love	Available	Assertive
200	Pleasure	Interest	Empathy	Friendship	Membership	Available	Sensitive
201	Pleasure	Interest	Empathy	Harmony	Membership	Available	Assertive
202	Pleasure	Interest	Empathy	Understanding	Membership	Available	Assertive
203	Pleasure	Interest	Empathy	Sharing	Attachment	Available	Assertive
204	Pleasure	Interest	Empathy	Frenzy	Happiness	Available	Assertive
205	Pleasure	Interest	Empathy	Generosity	Happiness	Available	Assertive
206	Pleasure	Interest	Empathy	Kindness	Happiness	Available	Assertive
207	Pleasure	Interest	Empathy	Softness	Benevolence	Available	Assertive
208	Pleasure	Interest	Empathy	Peace	Survival	Available	Assertive
209	Pleasure	Interest	Empathy	Patience	Survival	Available	Assertive
210	Pleasure	Interest	Empathy	Pietàs	Benevolence	Available	Assertive
211	Pleasure	Interest	Empathy	Forgiveness	Benevolence	Available	Assertive
212	Pleasure	Interest	Empathy	Tenderness	Membership	Available	Sensitive
213	Pleasure	Interest	Empathy	Compassion	Faith	Available	Sensitive
214	Pleasure	Interest	Empathy	Mercy	Faith	Available	Sensitive
215	Pleasure	Interest	Empathy	Reassurance	Benevolence	Available	Assertive
216	Pleasure	Interest	Empathy	Solidarity	Benevolence	Available	Assertive
217	Pleasure	Interest	Surprise	Curiosities	Survival	Available	Active
218	Pleasure	Interest	Surprise	Wonder	Survival	Available	Active
219	Pleasure	Interest	Surprise	Stunning	Survival	Available	Active
220	Pleasure	Interest	Surprise	Astonishment	Survival	Available	Active
221	Pleasure	Interest	Surprise	Enthusiasm	Survival	Available	Active
222	Pleasure	Decency	Modesty	Discretion	Self-love	Responsible	Assertive
223	Pleasure	Decency	Modesty	Moderation	Self-love	Responsible	Assertive
224	Pleasure	Decency	Modesty	Unpretentiousness	Self-love	Responsible	Assertive
225	Pleasure	Decency	Modesty	Confidentiality	Self-love	Responsible	Assertive
226	Pleasure	Decency	Modesty	Humility	Self-love	Responsible	Assertive

A: Adaptive trajectories [AT]. B: Adaptive mode [AM]. C: Emotional state (emotions) [ES]. D: Sentimental state (links and feelings) [SS]. E: Adaptive reactions (behavioural attitudes, needs, desires, behavioural inclinations, instincts, attachments, needs, behavioural predispositions, strategies) [AR]. F: Adaptive responses (adaptive consequences) [AC]. G: Behavior styles [BS]. H: Cluster of operation [CO].

Table 4: Difference in averages, between PHEM-1/PHEM-2 administrations and their differential.

Clinical reasons	Mead_ points_ PHEM-1_ 1th session	Mead_ points_ PHEM-1_ 5th session	Mead_ points _PHEM-2_ 1th session	Mead_ points _PHEM-2_ 5th session	Δ PHEM
Generalized anxiety disorder (1)	7.35	5.57	7.34	3.87	-1.70
Panic disorder (2)	7.90	6.01	7.45	3.70	-2.30
Obsessive disorder (3)	7.61	5.89	7.83	3.94	-1.95
Bipolarism (4)	7.65	6.18	7.82	4.01	-2.18
Phobic - Somatic disorders (5)	7.33	5.53	7.87	4.01	-1.52
Borderline (6)	8.13	6.21	7.99	4.33	-3.66
Depressive-Dysthymic disorders (7)	7.42	5.84	7.51	3.83	-2.01
Psicotic disorders (8)	7.00	5.13	7.88	4.38	-0.75
Physical and behavioural addictions (9)	7.86	6.00	8.00	4.43	-1.57
Narcissist disorder (10)	7.60	6.00	7.40	4.00	-2.00

From a structural point of view, PHEM-2 is perpetually and constantly being updated, the universe of emotions being still in many ways unexplored territory, but this second version has the merit, compared with past models and the first version, of explaining emotional language as an integrated and not separate function, structured by progressive logical connections and functional to communicative reason, making it possible to study human behaviour from a cognitive perspective and to evaluate individual adaptive trajectories, understood as paths that are far from illogical, but connected to an internal dimension based on needs and necessities, concerning one's subjective experience and adaptation with the surrounding environment. In this way, each trajectory draws a precise adaptive line that the subject can investigate and compare with his or her own experience, taking into account that the subject can also enact more than one trajectory at a time, per specific event. In detail, in the table are the definitions of the structural and functional components of PHEM-2 (Table 5).

Based on theoretical experience, the updated second edition model was then compared with the same population sample, of equal numerosity and distribution, to be able to assess its

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

Table 5: Definitions and contexts of the structural and functional components of PHEM-2.

Structural element	Definition and contexts
Adaptive trajectories [AT]	Emotional trajectories originate from specific modalities (AM), with adaptive purposes, concerning one's internal dimension and adaptation to the external environment. The subject, depending on the circumstances, may also experience several trajectories simultaneously, as emotional experience is by its definition multifocal. There are a total of 226.
Adaptive mode [AM]	The basic, unconscious emotional mode originates from the binomial anguish-pleasure set-up, based on one's internal and external experiences. Both modalities are adaptive concerning one's human dimension, and underlie individual trajectories (TA); therefore, both the anguish and pleasure modalities respond to precise adaptive needs, and in and of themselves neither can necessarily be considered functional or dysfunctional, as both pursue the same finalists need. There are a total of 2.
Emotional state [ES]	It is a structurally simple neurobiological experience in that it originates from one of the 2 adaptive modes (anguish or pleasure), and is also called "emotion". From the first mode (anguish) originate 6 emotions (guilt, disgust, frustration, fear, anger, and sadness), while from the second mode (pleasure) originate 4 emotions (affect, joy, interest, and decency), and are functional for the concrete representation of the unconscious emotional dimension. They are a total of 10.
Sentimental state [SS]	It is a structurally complex neurobiological experience that originates from one of 10 emotional states (or emotions). They can be emotional-sentimental links (connections arising from a common emotional element that nevertheless cannot produce lasting ties) or true feelings (articulated and complex feeling states that produce lasting ties), and there are 19 for the first adaptive mode (anguish) and 15 for the second (pleasure). There are a total of 34.
Adaptive reactions [AR]	Emotional-behavioural reaction consists of behavioural attitudes, needs, desires, behavioural inclinations, instincts, attachments, needs, behavioural predispositions, and strategies, directly related to one's emotional experience, life experiences, and relationship with one's surroundings. They are a total of 226, just like adaptive trajectories, and in particular 142 about the first mode (anguish) and 84 about the second mode (pleasure).
Adaptive responses [AC]	The emotional-behavioural response consists of a specific adaptive "demand" directly related to one's emotional experience, life experiences, and relationship with one's surroundings. It meets a specific need for internal emotional organization, to better center the emotional-cognitive experience and respond to the outside world as consistently as possible. There are 22 in all, and specifically, there are 5 concerning the first mode (anguish) and 17 concerning the second mode (pleasure).
Behaviour styles [BS]	Behavioral style related to emotional-cognitive processing, in relation to character set-up. There are 4 in all, specifically 2 (aggressive and passive) in relation to the first mode (anguish) and 4 (responsible, available, adequate, and balanced) in relation to the second mode (pleasure).
Cluster of operation [CO]	Clusterization related to emotional-cognitive processing, related to personological setup. There are 6 in all, specifically: 3 (neurotic, dramatic, and psychotic) relate to the first mode (anguish), and 3 (assertive, active, and sensitive) to the second mode (pleasure).

clinical impact. It was preferred to administer it to the same population sample as PHEM-1, as it was considered less impactful to the therapeutic work carried out through PHEM-1 than to the risk of having a new population sample that had phonological characteristics, both adaptive and maladaptive, that was partially or different, despite all the accommodations that could be used, as the psychic dimension is always subjective and unique, both in structural and functional.

From the comparison, as already reported in the results section of this paper, it is clear that the positive impact of PHEM-2 is far greater than that of the previous version, standing at an average severity score of 4.05/10 compared to 5.84/10 for PHEM-1 (-1.79/10), after the five sessions budgeted. In particular, it is possible to take note of the fact that the use of PHEM-2 has an extremely positive effect on borderline patients (-3.66), and to a lesser though still significant extent, also on bipolar (-2.18), depressive (-2.01), narcissistic (-2.0) and neurotic patients with panic disorder (-2.3) and obsessive-compulsive disorder (-1.95). On the other hand, improvement is slight with phobic-somatic (-1.52), addicted to and/or substance behavioural conduct (-1.57), and anxious (-1.7) patients, while there are almost zero improvements in psychotic patients (-0.75), by their fragmentation of the plane of reality (Table 5, Figure 1] Same statistical result was obtained when evaluating the clinical utility of PHEM-2 versus PHEM-1, in accordance also with recent neuroscientific findings on emotions, language, and communication [25-45].

The limitations detectable in this study, in the authors' opinion, relate to the theoretical construct of the PHEM model,

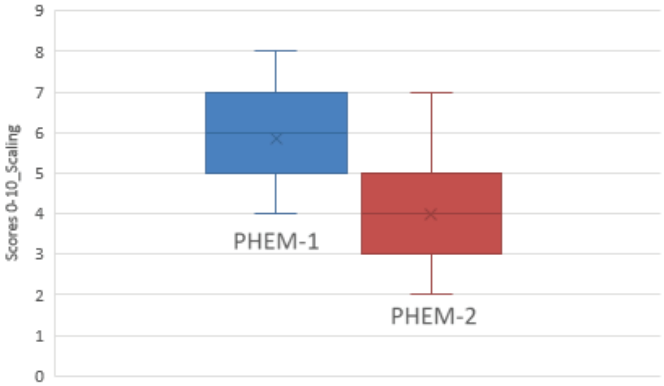

Figure 1: Difference in averages for scores related to the results after the 5 sessions, between PHEM-1/PHEM-2 administrations.

which is constantly evolving and changing, the small size of the population sample, the use of the same population sample that had already received initial treatment by administration of PHEM-1 (and thus it is not possible to determine whether the first intervention left permanent positive outcomes impacting the second administration), and the need to use PHEM-2 according to a brief or otherwise integrated strategic psychotherapeutic approach.

Conclusion

In conclusion, this research confirms the clinical usefulness of administering the PHEM-2, compared with the previous version, during psychotherapeutic encounters conducted according to the brief or otherwise integrated strategic approach, to improve the patient's awareness of his or her

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

emotional dimension, thereby honing skills that he or she does not master.

Institutional review board statement

All participants were assured of compliance with the ethical requirements of the Charter of Human Rights, the Declaration of Helsinki in its most up-to-date version, the Oviedo Convention, the guidelines of the National Bioethics Committee, the standards of "Good Clinical Practice" (GCP) in the most recent version, the national and international codes of ethics of reference, as well as the fundamental principles of state law and international laws according to the updated guidelines on observation studies and clinical trial studies.

Informed consent statement

Subjects who gave regularly informed consent agreements were recruited; moreover, these subjects requested and obtained from GP, as the sole examiner and project manager, not to meet the other study collaborators, thus remaining completely anonymous.

Data availability statement

The subjects who participated in the study requested and obtained that GP be the sole examiner during the therapeutic sessions and that all other authors be aware of the participant's data in an exclusively anonymous form.

Acknowledgment

The authors who contributed to the work are 3. We report below the contribution of each author: GP was responsible for the design and execution (recruitment, data collection, statistical analysis) of the study; VB and SE supervised the drafting of the manuscript and the development of the sections and translations, concerning the updates of the new model. All authors read and approved the final manuscript.

References

1. Perrotta, G. The "Human Emotions" and the "Perrotta Human Emotions Model" (PHEM): The new theoretical model. Historical, neurobiological and clinical profiles. Arch Depress Anxiety. 2021; 7(2): 020-028.

2. Treccani. Vocabulary. Source: treccani.it/vocabolario/. Accessed on date: 22.07.2023-25.07.2023.

3. Zanichelli. Vocabulary. Source: dizionari.zanichelli.it/. Accessed on date: 22.07.2023-25.07.2023.

4. Oxford University Press. Oxford (dictionary). English-Italian, Italian-English. Paravia Ed.; 2006.

5. Picchi F. Hoepli Big Dictionary. English-Italian, Italian-English. Hoepli Ed. 2016.

6. Sellbom M, Anderson JL. The Minnesota Multiphasic Personality Inventory-2. In RP. Archer & EMA Wheeler (Eds.), Forensic uses of clinical assessment instruments. 21–62. Routledge/Taylor & Francis Group; 2013.

7. Sellbom M. The MMPI-2-Restructured Form (MMPI-2-RF): Assessment of Personality and Psychopathology in the Twenty-First Century. Annu Rev Clin Psychol. 2019 May 7;15:149-177. doi: 10.1146/annurev-clinpsy-050718-095701. Epub 2019 Jan 2. PMID: 30601687.

8. Ben-Porath YS. Addressing challenges to MMPI-2-RF-based testimony: questions and answers. Arch Clin Neuropsychol. 2012 Nov;27(7):691-705. doi: 10.1093/arclin/acs083. Epub 2012 Oct 16. PMID: 23076394.

9. Perrotta G. Perrotta Integrative Clinical Interviews (PICI-2): Innovations to the first model, the study on the new modality of personological investigation, trait diagnosis and state diagnosis, and the analysis of functional and dysfunctional personality traits. An integrated study of the dynamic, behavioural, cognitive and constructivist models in psychopathological diagnosis. Ann Psychiatry Treatm. 2021; 5(1): 067-083.

10. Perrotta G. The strategic clinical model in psychotherapy: theoretical and practical profiles. J Add Adol Beh. 2020; 3(1).

11. Espugnatore G, Fabiano G, Gentili S, Perrotta G, Pillon P, Zaffino A. Strategic psychotherapy in clinical practice. Models, theories, techniques, and strategies. Italian language manual. Primiceri Ed.; 2023.

12. Walker CR, Froerer AS, Gourlay-Fernandez N. The value of using emotions in solution focused brief therapy. J Marital Fam Ther. 2022 Jul;48(3):812-826. doi: 10.1111/jmft.12551. Epub 2021 Sep 13. PMID: 34516032.

13. Franklin C, Hai AH. Solution-Focused Brief Therapy for Substance Use: A Review of the Literature. Health Soc Work. 2021 Jun 21;46(2):103-114. doi: 10.1093/hsw/hlab002. PMID: 33969410.

14. Markowitz JC. Supportive Evidence: Brief Supportive Psychotherapy as Active Control and Clinical Intervention. Am J Psychother. 2022 Sep 1;75(3):122-128. doi: 10.1176/appi.psychotherapy.2021.20210041. Epub 2022 Mar 2. PMID: 35232221.

15. Porcelan J, Scribner K. Brief Psychodynamic Psychotherapy: A Review and Illustrative Case Vignette. Innov Clin Neurosci. 2022 Jan-Mar;19(1-3):52-55. PMID: 35382069; PMCID: PMC8970238.

16. Abbass A, Lumley MA, Town J, Holmes H, Luyten P, Cooper A, Russell L, Schubiner H, De Meulemeester C, Kisely S. Short-term psychodynamic psychotherapy for functional somatic disorders: A systematic review and meta-analysis of within-treatment effects. J Psychosom Res. 2021 Jun;145:110473. doi: 10.1016/j.jpsychores.2021.110473. Epub 2021 Mar 26. PMID: 33814192.

17. Olano FJA, Rosenbaum B. [Short-term psychodynamic psychotherapy]. Ugeskr Laeger. 2022 Jul 4;184(27):V03220168. Danish. PMID: 35786496.

18. Witt KG, Hetrick SE, Rajaram G, Hazell P, Taylor Salisbury TL, Townsend E, Hawton K. Psychosocial interventions for self-harm in adults. Cochrane Database Syst Rev. 2021 Apr 22;4(4):CD013668. doi: 10.1002/14651858.CD013668.pub2. PMID: 33884617; PMCID: PMC8094743.

19. Ostermann T, Röer JP, Tomasik MJ. Digitalization in psychology: A bit of challenge and a byte of success. Patterns (N Y). 2021 Oct 8;2(10):100334. doi: 10.1016/j.patter.2021.100334. PMID: 34693371; PMCID: PMC8515005.

20. Brooks SK, Weston D, Wessely S, Greenberg N. Effectiveness and acceptability of brief psychoeducational interventions after potentially traumatic events: A systematic review. Eur J Psychotraumatol. 2021 May 31;12(1):1923110. doi: 10.1080/20008198.2021.1923110. PMID: 34104355; PMCID: PMC8168745.

21. Dios C, Carracedo-Sanchidrián D, Bayón C, Rodríguez-Vega B, Bravo-Ortiz MF, González-Pinto AM, Lahera G; BIMIND Group. Mindfulness-based cognitive therapy versus psychoeducational intervention in bipolar outpatients: Results from a randomized controlled trial. Rev Psiquiatr Salud Ment (Engl Ed). 2021 Aug 28:S1888-9891(21)00095-1. English, Spanish. doi: 10.1016/j.rpsm.2021.08.001. Epub ahead of print. PMID: 34461255.

22. Bernal G, Rivera-Medina CL, Cumba-Avilés E, Reyes-Rodríguez ML, Sáez-Santiago E, Duarté-Vélez Y, Nazario L, Rodríguez-Quintana N, Rosselló J. Can Cognitive-Behavioral Therapy Be Optimized With Parent Psychoeducation? A Randomized Effectiveness Trial of Adolescents With Major Depression in Puerto Rico. Fam Process. 2019 Dec;58(4):832-854. doi: 10.1111/famp.12455. Epub 2019 May 11. PMID: 31077610.

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043

23. Blanco C, Markowitz JC, Hellerstein DJ, Nezu AM, Wall M, Olfson M, Chen Y, Levenson J, Onishi M, Varona C, Okuda M, Hershman DL. A randomized trial of interpersonal psychotherapy, problem solving therapy, and supportive therapy for major depressive disorder in women with breast cancer. Breast Cancer Res Treat. 2019 Jan;173(2):353-364. doi: 10.1007/s10549-018-4994-5. Epub 2018 Oct 20. PMID: 30343455; PMCID: PMC6391220.

24. Perrotta, G. The new Dysfunctional Personality Model of the Anxiety Matrix (DPM-AM): "Neurotic Personality Disorder" (NPD). Ann Psychiatry Treatm. 2022; 6(1): 001-012.

25. Šimić G, Tkalčić M, Vukić V, Mulc D, Španić E, Šagud M, Olucha-Bordonau FE, Vukšić M, R Hof P. Understanding Emotions: Origins and Roles of the Amygdala. Biomolecules. 2021 May 31;11(6):823. doi: 10.3390/biom11060823. PMID: 34072960; PMCID: PMC8228195.

26. Alexander R, Aragón OR, Bookwala J, Cherbuin N, Gatt JM, Kahrilas IJ, Kästner N, Lawrence A, Lowe L, Morrison RG, Mueller SC, Nusslock R, Papadelis C, Polnaszek KL, Helene Richter S, Silton RL, Styliadis C. The neuroscience of positive emotions and affect: Implications for cultivating happiness and wellbeing. Neurosci Biobehav Rev. 2021 Feb;121:220-249. doi: 10.1016/j.neubiorev.2020.12.002. Epub 2020 Dec 8. PMID: 33307046.

27. Cruz S, Lifter K, Barros C, Vieira R, Sampaio A. Neural and psychophysiological correlates of social communication development: Evidence from sensory processing, motor, cognitive, language and emotional behavioral milestones across infancy. Appl Neuropsychol Child. 2022 Apr-Jun;11(2):158-177. doi: 10.1080/21622965.2020.1768392. Epub 2020 May 23. PMID: 32449376.

28. Pavlova MA, Sokolov AA. Reading language of the eyes. Neurosci Biobehav Rev. 2022 Sep;140:104755. doi: 10.1016/j.neubiorev.2022.104755. Epub 2022 Jun 25. PMID: 35760388.

29. Rolls ET. The hippocampus, ventromedial prefrontal cortex, and episodic and semantic memory. Prog Neurobiol. 2022 Oct;217:102334. doi: 10.1016/j.pneurobio.2022.102334. Epub 2022 Jul 21. PMID: 35870682.

30. Zachlod D, Kedo O, Amunts K. Anatomy of the temporal lobe: From macro to micro. Handb Clin Neurol. 2022;187:17-51. doi: 10.1016/B978-0-12-823493-8.00009-2. PMID: 35964970.

31. Luminet O, Nielson KA, Ridout N. Cognitive-emotional processing in alexithymia: an integrative review. Cogn Emot. 2021 May;35(3):449-487. doi: 10.1080/02699931.2021.1908231. Epub 2021 Mar 31. PMID: 33787442.

32. Prentice F, Hobson H, Spooner R, Murphy J. Gender differences in interoceptive accuracy and emotional ability: An explanation for incompatible findings. Neurosci Biobehav Rev. 2022 Oct;141:104808. doi: 10.1016/j.neubiorev.2022.104808. Epub 2022 Aug 3. PMID: 35932952.

33. Nadeau SE. Treatment of disorders of emotional comprehension, expression, and emotional semantics. Handb Clin Neurol. 2021;183:283-297. doi: 10.1016/B978-0-12-822290-4.00013-X. PMID: 34389123.

34. Wang N. EFL Teachers' Mindfulness and Emotion Regulation in Language Context. Front Psychol. 2022 Jun 9;13:877108. doi: 10.3389/fpsyg.2022.877108. PMID: 35756308; PMCID: PMC9221676.

35. Tripp A, Munson B. Perceiving gender while perceiving language: Integrating psycholinguistics and gender theory. Wiley Interdiscip Rev Cogn Sci. 2022 Mar;13(2):e1583. doi: 10.1002/wcs.1583. Epub 2021 Oct 29. PMID: 34716654.

36. Prieur J, Barbu S, Blois-Heulin C, Lemasson A. The origins of gestures and language: history, current advances and proposed theories. Biol Rev Camb Philos Soc. 2020 Jun;95(3):531-554. doi: 10.1111/brv.12576. Epub 2019 Dec 18. PMID: 31854102.

37. Ross ED. Disorders of vocal emotional expression and comprehension: The aprosodias. Handb Clin Neurol. 2021;183:63-98. doi: 10.1016/B978-0-12-822290-4.00005-0. PMID: 34389126.

38. Kong Y. Are emotions contagious? A conceptual review of studies in language education. Front Psychol. 2022 Oct 21;13:1048105. doi: 10.3389/fpsyg.2022.1048105. PMID: 36337507; PMCID: PMC9635851.

39. Wang Y, Derakhshan A, Pan Z. Positioning an Agenda on a Loving Pedagogy in Second Language Acquisition: Conceptualization, Practice, and Research. Front Psychol. 2022 May 20;13:894190. doi: 10.3389/fpsyg.2022.894190. PMID: 35668974; PMCID: PMC9164106.

40. Walker CR, Froerer AS, Gourlay-Fernandez N. The value of using emotions in solution focused brief therapy. J Marital Fam Ther. 2022 Jul;48(3):812-826. doi: 10.1111/jmft.12551. Epub 2021 Sep 13. PMID: 34516032.

41. Yang L, Duan M. The role of emotional intelligence in EFL learners' academic literacy development. Heliyon. 2023 Jan 21;9(1):e13110. doi: 10.1016/j.heliyon.2023.e13110. PMID: 36711295; PMCID: PMC9880395.

42. Békés V, Roberts K, Németh D. Competitive neurocognitive processes following bereavement. Brain Res Bull. 2023 Jul;199:110663. doi: 10.1016/j.brainresbull.2023.110663. Epub 2023 May 11. PMID: 37172799.

43. Wu VX, Chi Y, Lee JK, Goh HS, Chen DYM, Haugan G, Chao FFT, Klainin-Yobas P. The effect of dance interventions on cognition, neuroplasticity, physical function, depression, and quality of life for older adults with mild cognitive impairment: A systematic review and meta-analysis. Int J Nurs Stud. 2021 Oct;122:104025. doi: 10.1016/j.ijnurstu.2021.104025. Epub 2021 Jun 30. PMID: 34298320.

44. Xu Q, Ye C, Gu S, Hu Z, Lei Y, Li X, Huang L, Liu Q. Negative and Positive Bias for Emotional Faces: Evidence from the Attention and Working Memory Paradigms. Neural Plast. 2021 May 27;2021:8851066. doi: 10.1155/2021/8851066. PMID: 34135956; PMCID: PMC8178010.

45. Hrdy SB, Burkart JM. The emergence of emotionally modern humans: implications for language and learning. Philos Trans R Soc Lond B Biol Sci. 2020 Jul 20;375(1803):20190499. doi: 10.1098/rstb.2019.0499. Epub 2020 Jun 1. PMID: 32475330; PMCID: PMC7293152.

Citation: Perrotta G, Basiletti V, Eleuteri S (2023) The "Human Emotions" and the new "Perrotta Human Emotions Model" (PHEM-2): Structural and functional updates to the first model. Open J Trauma 7(1): 022-034. DOI: https://dx.doi.org/10.17352/ojt.000043