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Research Article

Psychopathological Investigation of The Personality Of "Psychic Mediums": Clinical Evidence

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Abstract

Background: In popular culture, the medium is a subject of seemingly controversial psychic abilities, as he or she seems to be able to communicate telepathically and physically with the various spirit entities present on the astral plane, i.e., a plane parallel to the physical one that can interact with it. In the literature, such assumptions rise to mere speculation, the result of superstition and personal beliefs, using the abilities of mental manipulation; however, some research has challenged these beliefs.

Objectives: To demonstrate whether the personality profile of the psychic mediums analyzed exhibits pathological personality traits and whether such are sufficient to confirm a clinical diagnosis.

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

Results: The totality of the clinical group (CG) is found to be pathological, with at least 5 dysfunctional traits, and a corollary of secondary traits reinforcing the primary condition; the pathological differential from the control group (Cg) is +70.7%. At the individual sexual matrix questionnaires, just over 1/4 of the CG show a dysfunctional tendency to sexual behavior with a differential from the Cg of +42.8%. Slightly more than one-fifth of the CG also exhibit affective dependence, with a pathological differential with the Cg of +17%, while the CG sample concerning ego defense mechanisms exhibits the pathological totality of the sample, with a differential for the Cg of +45.7%.

Conclusions: This research confirms the psychopathological nature of the personality profiles of psychic mediums, with a greater prevalence of the delusional, dissociative and narcissistic overt-type disorder, although these results do not prove the fraudulent nature of the mediumistic activity per se, and therefore what has been obtained should be read in a more general way, subjecting mediums in mediumistic activity to technical instrumentation (electroencephalogram, functional magnetic resonance imaging, signal potential and audio-video) to verify the outcomes.

Keywords: administrative segregation, solitary confinement, inmates, study design, quality of design

Introduction

In popular culture, the medium is an individual with seemingly controversial psychic abilities in that he or she seems to be able to communicate telepathically and physically with the various spirit entities present on the astral plane, i.e., a plane parallel to the physical plane that can interact with it. Occult mystical tradition reports that such abilities are innate in every human being but only certain people can release their psychic energy flow to concretely achieve the state of connection with the plane where these "entities" are present.

In the literature, such assumptions rise to mere speculation, the result of superstitions and personal beliefs of certain individuals who, using their skills of mental manipulation and credibility, manage to make people believe what they want, especially if the victims are prone to religious beliefs and easy gullibility. Several scientific researchers, however, have tried to prove the inconsistency of the paranormal phenomenon, citing mental disorders, epileptic forms and electromagnetic field alterations as possible causes; yet, in some cases, these deep-rooted beliefs have faltered.

Such is the case with Moreira-Almeida's Brazilian research [1], conducted on 115 mediums and their mental health status, to demonstrate a greater psychopathological component than the average population: however, this bias seems to be disproved, having found that the sample subjected to the study presents a high socio-educational level, a low probability of mental problems and a good integration in society compared to the rest of the population.

Attention then shifted to the trance state that the medium experiences during contact with the alleged spirit entity, i.e., that mental condition typical of dissociation, when a lack of integration between consciousness and other cognitive processes (memory, emotions, ...) originates: again, according to Peres' research. Peres [2], focusing, however, on the moment related to psychography (automatic writing under trance), using a sample of 10 subjects (5 experts and 5 trainees), interesting peculiarities were found with the use of SPECT (single photon emission tomography). In particular, the mediums had 15 to 47 years of experience in automatic writing, performing up to 18 psychographies per month. All were right-handed, in good health, and did not normally use psychotropic drugs. None had problems entering a trance state to perform a psychography task, while they were in a regular state of consciousness during the control task (without psychography). Experienced mediums had low levels of activity in the left hippocampus, right superior temporal gyrus and frontal lobe regions of the brain compared with the control condition (i.e., without trance). In contrast, for the learner mediums, the results were virtually the opposite, especially higher levels of activity in the same frontal regions compared to the control condition and even more pronounced was the difference compared to the experienced mediums. The frontal lobes are those regions of the brain associated with high cognitive functions, such as reasoning, planning, language generation, and problem-solving. It seems that more experienced mediums reduce their "rational" concentration, have a quirky consciousness and are less integrated during psychography. In contrast, the less experienced perform the test with more difficulty, activating the more "cognitive" regions of the brain. An additional, more curious aspect is that the better mediums produce more complex and elaborate writing texts than the control condition (without trance) and the less skilled. Typically, this would imply increase activity in the temporal and frontal lobes, an increased activity that did not occur. Indeed, while we would expect less regular, more chaotic and confusing writing precisely because of low frontal cortical activity, nevertheless the mediums were able to write better than when not in trance. A possible explanation then for this phenomenon is, according to the researchers, the fact that the trance state acts in much the same way as alcoholic and narcotic substances, disinhibiting precisely those areas that drive psychographic writing, increasing the complexity of the paper. However, this research suffers from 2 major criticisms: a) the sample examined is too small and is all from the same geographical region; b) the correlation with possible mental contact of a supposedly paranormal nature has not been explained.

A third research paper, by Richeport [3], focused instead on the hypothesis of a possible multiple personality disorder underlying the mediumistic experience. This assumption, drawing interesting parallels with historical, clinical and anthropological perspectives, then dwelled on the Eriksonian view, where multiplicity might not be strictly related to a psychopathological fact in the strict sense: in essence, seeing them as resources and not as afflictions to be treated, other personalities would be nothing but normal manifestations of "other selves". Fascinating thesis, though not confirmed in light of the scientific rigour that research should have.

In the wake of the last theses, namely dissociation in a general sense, another research, conducted by Wahbeh and Radin [4], however, showed that people who report mediumship experiences have higher dissociation symptom scores than non-medians, but still below the thresholds for pathological dissociation.

The results, on the other hand, obtained from the research conducted by Beischel and Schwartz [5] did indeed bring out something very interesting: it appears that some mediums can receive accurate information about deceased individuals, but not according to the classical pattern of telepathy, so much as survival of consciousness (continuous existence, separate from the body, of an individual's consciousness or personality after physical death) and super-ESP (the so-called retrieval of

information via a psychic channel or quantum field). Thus, a detailed study of the electromagnetic interaction of such individuals with their surroundings is urgently needed.

Research partially carried out by Persinger [6] but not fully completed: a total of 621 reports (with experience for about 70 years) of paranormal experiences concerning death were differentiated according to the traditional labels: telepathic, precognitive and postmortem phenomena. The 232 telepathic experiences occurred during 24-hour periods when global geomagnetic activity was significantly less (quieter) than in the days before or after the experiences; this relationship was not shown by the 186 precognitive or 203 postmortem cases. Although content analysis suggests that nocturnal psi experiences and temporal lobe epilepsy may share a similar mechanism, different classes of subjective psi experiences may not be affected by the same stimuli.

Finally, Claus [7] concluded that the phenomenon of the spirit has its existential dignity: in particular, he argued that the phenomenon of spirit possession is considered concerning the broad cultural context in which it is found to exist, in a region of southern India. The author critically critiques various attempts to explain spirit possession as an exclusively psychological or sociological event; instead, he turns to mediumship cults, oral traditions, and social ideology for an ethnographic interpretation.

In the literature, there are many possible explanations [8-13]:

a) According to Alexander's studies, it is unclear whether ESP phenomena are attributable to the right (predominance) or left hemisphere, or depend on factors related to multiple areas present in both hemispheres.

b) Persinger demonstrated through dozens of researches, between the 1950s and 1960s, that there was a direct connection between hallucinations and the temporal lobes (on the left is the sense of self, while on the right is the other external self, precisely the entity), just as there was between mystical and religious experience and the limbic system. Ramachandran then concluded that the temporal lobes were the seat of religious experience (the right temporal lobe in particular, for Morse); of a different opinion were Newberg and D'Aquili who pointed to the parietal and frontal lobes, while Joseph valued the importance of the amygdala as a transmitter of God.

c) On the ESP-related contributions of Joire (1892), Rhine (1884, 1930), Persinger (1950-1960), Mitchell (1971), Honorton (1974), Schmeidler (1988), and Bem (2011), and the incredible insight of several researchers that perhaps the answer to psi phenomena can be found in junk DNA, there is no scientific research geared toward the existential hypothesis of the spirit phenomenon, studied, however, through field data related to temperatures and electromagnetism, or even brain scanning during the episode of telepathic connection with the entity. It seems strange that no scientific research has been concretely oriented toward the hypothesis of hallucinations determined by electromagnetic alterations, except for Persinger's studies on sacred places and the recent Blanke on the feeling of presence (FoP), demonstrating the involvement of 3 brain regions: the temporoparietal cortex, the insular or insula cortex and the frontoparietal cortex. The data obtained help to understand how such illusory experiences are mediated by altered perceptions regarding the origin and identity of sensory and motor signals (in particular, those of a tactile, proprioceptive, and motor nature) of one's body. These findings provide a framework of probable neural mechanisms for the experience of FoP, for the generation of the experience of "self" and "others," and constitute an advance in understanding the brain mechanisms that induce hallucination phenomena in schizophrenic patients. Precisely on the latter point, interesting research, such as that of Figner, has shown instead how low-level electromagnetic fields can alter self-control and the sense of

morality, while other research has shown how such fields can negatively interfere with the physiological functions of the body, from the immune system to the circadian system, regulated by melatonin, produced by the epiphysis or pineal gland (third eye for Western and Eastern esoteric traditions), often referred to by occultists and esotericists as the seat of the soul, although to date there is no scientific evidence for such claims.

The literature, therefore, places more emphasis on the denialist hypothesis, claiming the inconsistency of the mediumistic phenomenon [14-15], albeit with some exceptions [16-17], seeking explanations in clinical hypotheses or mechanisms not yet perfectly known and explained but not paranormal [5, 18-22], although the studies that delved into the psychopathological issue were limited to assessing the possible presence of one or more morbid conditions, without ever delving into the personality framework from both a structural and a functional point of view.

2. Objectives

The main research objective, based on the findings in the literature, is to identify the exact psychological picture of the participants in the selected population sample, to try to answer the following profiles:

1. ontological, i.e., whether the reality under scrutiny exists objectively (and thus whether or not the individual presents a pathological personality profile);

2. epistemological, that is, whether the reality under examination is knowable (and whether it is possible to identify both the structural and functional profile of one's personality framework);

3. methodological, that is, whether the reality under examination is measurable (using suitable psychometric instruments to identify individual characteristics);

4. axiological, i.e., whether the reality under investigation is worthy of study (and thus whether any psychopathological correlation found can influence the quality and goodness of the perception reported by the subject).

3. Materials and methods

I searched in Pubmed until November 20, 2022, for reviews, meta-analyses, clinical trials and randomized controlled trials, using the keywords "medium", "seer", "mediumship" and "paranormal", content on the abstract and title, have been selected 22 useful results. Simple reviews, opinion contributions or systematic reviews were included because there are no published clinical trials. The search was limited to English-language articles. No limit was placed on the year of publication, covering the time window from 1979 to the present period.
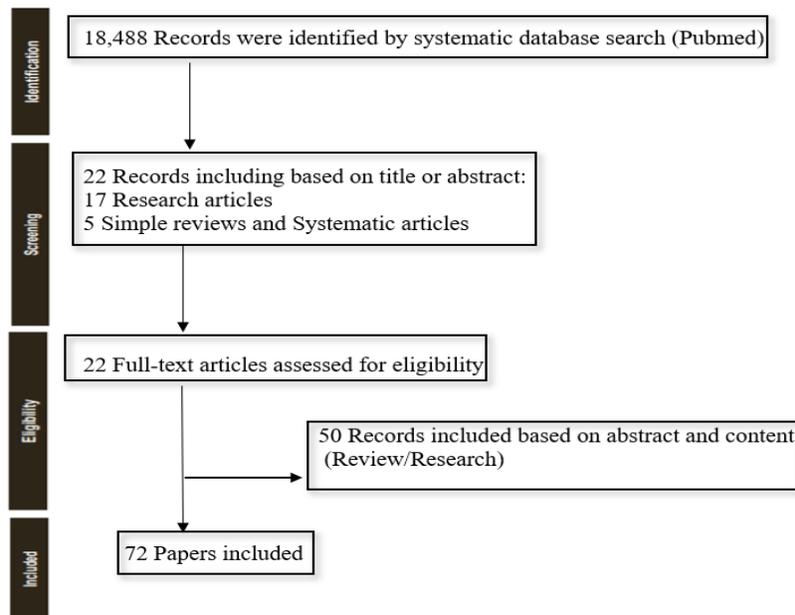
Figure 1: Prisma model.

The methods used are two: 1) Clinical interview, based on narrative-anamnestic and documentary evidence and the basis of the Perrotta Human Emotions Model (PHEM) concerning their emotional and perceptual-reactive experience; 2) Administration of the battery of psychometric tests published in international scientific journals by the author of this work: a) Perrotta Integrative Clinical Interviews (PICI-2), to investigate functional and dysfunctional personality traits; b) Perrotta Individual Sexual Matrix Questionnaire (PSM-Q), to investigate individual sexual matrix; c) Perrotta Affective Dependence Questionnaire (PAD-Q), to investigate affective and relational dependence profiles; d) Perrotta Human Defense Mechanisms Questionnaire (PDM-Q), to investigate ego defence mechanisms.

The phases of the research were divided as follows:

1. Selection of the population sample, according to the parameters indicated in the following paragraph.

2. Clinical interview, with each population group.

3. Administration of the psychometric tests.

4. Data processing following administration.

5. Comparison of data obtained.

4. Setting and participants

The requirements decided for the selection of the sample population are:

1) Age between 21 years and 80 years, m/f defined, heterosexual orientation, of healthy and robust constitution and in the absence of pathological symptoms: this choice is oriented to exclude underage

subjects because they were not identified during the research of the sample population and subjects of excessively old age to avoid possible implications with neurodegenerative and/or neurovascular medical conditions.

2) Status statement of one's mediumistic ability, demonstrable through professional or scholarly activity, and research with public and private entities, for at least 2 years.

3) Absence of psychopathological diagnoses or known neurological and neurodegenerative disorders at the time of participation in this study.

Age	Male	Female	Total
21-30	4	6	10
31-40	9	12	21
41-50	12	19	31
51-60	15	22	37
61-70	14	13	27
71-80	10	4	14
Total	64 (45,7%)	76 (54,3%)	140 (100%)

Table 1: Population sample (numerousness) - CG.

A second group (Control Group, CG) was then selected, consisting of the same numerosity and selected based on the following inclusion criteria, then again divided into six groups by age groups identical to the CG: 1) Age between 21 years and 80 years, m/f defined, heterosexual orientation, of the healthy constitution and in the absence of pathological symptoms. 2) Declaration of atheism of one's religious faith and absence of belief in the psychic faculties of mediums. 3) Absence of psychopathological diagnoses or known neurological and neurodegenerative disorders at the time of participation in this study.

5. Results

After the selection of the chosen population sample (first stage), we proceeded with the clinical interviews (second stage), from which the first significant data emerged:

1. Considering the total population sample (140/140), one immediately notices in the CG the substantial parity of distribution between the overall female (76/112) versus male (64/112) sample populousness, albeit with a slight majority for the female population. For the sake of organizational simplicity, the different mediumistic nuances were flattened by categorizing the clinical group (avoiding distinguishing between different mediumistic faculties and focusing only on the ability to communicate with spirit entities through thought means or physical means such as writing). Preliminary results from the interviews and the medical history form would suggest that the phenomenon of mediumistic communication has a total prevalence in the population believing in the existence of paranormal phenomena per se, even in the absence of objective and/or scientific evidence, and this is a phenomenon almost completely related (136/140, 97.1%) to individuals who have a low to middle cultural level or are not fully educated.

2. Other data of relevance also emerged during the first clinical interview: a) all of the proposed narratives had fantastic and phantasmal elements, unsupported by evidentiary evidence such as descriptive testimonies, photo-video-audio material and peculiar physical signs, except in 14/140 (10%) cases where the material produced (audio-video and material) presents anomalies that deserve

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. The present research work was carried out from March 2019 to November 2022. All participants were guaranteed anonymity and the ethical requirements of the Declaration of Helsinki are met. Since the research is not financed by anyone, it is free of conflicts of interest. The selected population clinical sample (Clinical group, CG), which meets the requirements, is 140 participants, divided into six groups:

further investigation elsewhere and with specialized technical instrumentation; b) at the clinical interviews, 81/140 (57. 9%) of the sample presented markedly psychotic features (mainly paranoid, delusional, dissociative, and schizophrenic), but denied ever having received a psychiatric diagnosis, having ever taken psychotropic drugs, or having undergone psychotherapy.

3. Using, during the interview, the strategic language and the Perrotta Human Emotions Model (PHEM) [23], it emerged that the totality of the selected population sample presents a full distress orientation, facilitating feelings such as guilt, shame, anger, fear and disappointment, in the presence of past (childhood) and current (interpersonal and work) family traumas. In fact, without the administration of questionnaires, it is evident that the impairment of perception in the plane of reality involves per se the manifestation of paranormal episodes described by patients, in the presence of a probable personality disorder to be identified with the help of psychodiagnostic tools.

The third phase of the research focused on the administration of the battery of questionnaires, to the two study groups, from which the following results emerged for the clinical group (CG):

1. Administration of the Perrotta Integrative Clinical Interviews (PICI-2) [24-29]. Regarding the analysis of dysfunctional traits (PICI-2TA), the primary (structure) disorder that emerged with at least 5 traits was delusional disorder (64/140, 45.7%), dissociative disorder (44/140, 31.4%), narcissistic overt-type disorder (26/140, 18.6%), and disorder (6/140, 4.3%). Secondary (function) disorders include borderline disorder (48/140, 34.3%), bipolar disorder (29/140, 20.7%), paranoid disorder (23/140, 16.4%), obsessive disorder (22/140, 15.7%), narcissistic covert type disorder (11/140, 7.9%), and psychopathic disorder (7/140, 5%). A separate category that deserves specific mention is schizophrenic disorder, which was first diagnosed in 2/140 (1.4%) of the population sample (1 woman and 1 man, both in the age range 21-30 years) after administration of the PICI-2, confirmed by the psychiatric examination offered later. In 131/140 (93.6%), the following disorders emerged as comorbidities [38-60]: ADHD (in the subpopulation under 40 years old), body

dysmorphism, ICT disorder, sleep disorders, eating disorders, anxiety and mood disorders, paraphiliac disorders, and behavioural addictions (especially technology and internet addiction); concrete risk of suicide then emerged in 8/140 cases (5.7%), while presumed risk or demand for attention emerged in 21/140 (15%). In the analysis of functional traits (PICI-2FT), on the other hand, it was found that the most impaired classes, because they tended to be dysfunctional (with values of 0 or 4), were those referring to self-control, sensitivity, action, Ego-Id comparison, emotionality, ego stability, safety, and relational functionality, again confirming the marked dysfunctional tendency of the clinical population.

2. Administration of the Perrotta Individual Sexual Matrix Questionnaire (PSM-Q) [30-31, 61-66]. The PSM questionnaires demonstrated that almost 2/3 of the participants (77/140, 55%) show a dysfunctional tendency towards sexual behaviour and a marked tendency to chronicle feelings of shame in avoidance behaviour or hyposexuality/hypersexuality. Furthermore, 100% (140/140) of the sample of the population interviewed reported having suffered significant or serious psychological or physical abuse at a young age, intra-parental relational imbalances, or in any case a sexual upbringing that was not open and lacking in free communication.

3. Administration of the Perrotta Affective Dependence Questionnaire (PAD-Q). [32-35] According to the PDM-Q, 22.1% (31/140) are affected by affective dependency, with greater emphasis on types I (neurotic), VI (covert narcissist), V (borderline) and VII (psychotic), in this descending order.

4. Administration of the Perrotta Human Defense Mechanisms Questionnaire (PDM-Q) [36-37]. The PDM-Q reveals the widespread psychopathological tendency of the functional framework of the Ego, in the totality of the population sample (140/140) for the mechanisms of isolation, denial, regression, reactive formation, denial, projection, removal, withdrawal, instinct, repression and idealisation.

The second part of the third phase of the research focused on administering the battery of questionnaires to the control group (Cg) only, from which the following results emerged:

1. Administration of the Perrotta Integrative Clinical Interviews (PICI-2) [24-29]. As for the analysis of dysfunctional traits (PICI-2TA), there were 41/140 (29.3%) subjects with at least 5 traits, with profiles equally distributed among neurotic, borderline and psychotic (with greater tendency according to this order). The same should be said for the analysis of functional traits (PICI-2FT), in which the classes of distribution on the 18 channels emerged equally.

2. Administration of the Perrotta Individual Sexual Matrix Questionnaire (PSM-Q) [30-31]. 36/140 (25.7%) show a dysfunctional tendency to sexual behaviour and a marked tendency to chronicle feelings of shame into avoidance behaviours or hyposexuality/hypersexuality. In addition, 61/140 (43.6%) of the sample population surveyed reported having experienced significant or severe psychological or physical abuse at a young age, intra-parental relational imbalances, or otherwise a sexual upbringing that was not open and lacked free communication.

3. Administration of the Perrotta Affective Dependence Questionnaire (PAD-Q). [32-35] 7/140 (5%) are affected by affective dependency,

with trends evenly distributed among the seven categories, with a majority pattern prevalence for the neurotic and border classes.

4. Administration of the Perrotta Human Defense Mechanisms Questionnaire (PDM-Q) [36-37]. The PDM-Q reveals the widespread psychopathological tendency of the functional framework of the Ego, in the totality of the population sample (76/140, 54.3%) with trends evenly distributed among the seven categories, with a majority pattern prevalence for the neurotic and border classes.

6. Discussions and limits

The research results show the following:

1. There is, in the CG, a substantial parity of distribution between the overall female versus male sample populousness, albeit with a slight majority for the female population, with a total prevalence in the population of the existential belief of paranormal phenomena per se, even in the absence of objective and/or scientific evidence, and this is a phenomenon almost entirely related to subjects who have a low to medium cultural level or are not fully educated. A possible limitation is determined by the fact that neither population group declared or produced documentation about the existence of a past or ongoing epileptic form, and therefore they were included in the population samples based on a statement that could not be disproved.

2. The entirety of the CG population sample appears to be pathological, with at least 5 dysfunctional traits, and a corollary of secondary traits reinforcing the primary condition and related conditions, such as sleep disturbances and suicidal risk. The preference for administering the PICI-2 over other widely validated and used psychometric tests, such as the MMPI-2, was motivated by reasons of expediency: in fact, previous research has demonstrated the effectiveness and efficiency, sometimes better indicated, of the PICI-2 over the MMPI-2, in terms of performance and completeness of diagnosis. However, this can be considered formally a limitation, albeit not substantively. The pathological differential, compared with the PICI-2, between the CG and the Cg is +70.7%.

3. On individual sexual matrix questionnaires, slightly more than 1/4 of the CG show a dysfunctional tendency to sexual behaviour and a marked tendency to chronicle feelings of shame into avoidance behaviours or hyposexuality/hypersexuality, while slightly less than half of the sample population surveyed report significant or severe psychological or physical abuse at a young age, or intra-parental relational imbalances, or otherwise a sexual upbringing that is not open and lacks free communication. The pathological differential of PSM-Q between CG and Cg, taking the average of the two differential values, is +42.8%.

4. Just over one-fifth of the total CG population sample has affective dependence, while the pathological differential for PAD-Q between CG and Cg is +17%.

5. The entirety of the total CG population sample exhibits a pathological tendency of ego defense mechanisms, and therefore the pathological differential for PDM-Q is +45.7%.

The research results show significant differences between the two groups (CG/Cg), assigning a summed value of traits for each participant and relating the statistics to the personality profile determined by the PICI-2 findings; here the data summarized in the table:

Test	CG	Cg	Δ CG/Cg	M±DS	P
PICI	100%	29.3%	+ 70.7%	CG = 181.96±27.92 Cg = 121.36±17.92	**0.0001**
PSM-1	55%	25.7%	+ 29.3%	CG = 28.50±9.39 Cg = 23.27±7.44	**0.0001**
PSM-2	100%	43.6%	+ 56.4%	CG = 6.05±0.83 Cg = 4.08±1.78	**0.0001**
PAD	22.1%	5%	+ 17%	CG = 83.78±15.41 Cg = 77.60±7.12	**0.0001**
PDM	100%	54.3%	+ 45.7%	CG = 85.57±8.22 Cg = 68.76±18.90	**0.0001**

Table 2: SPSS, T-test and CG/Cg pathological differential.

7. Conclusions

In conclusion, this research confirms the psychopathological nature of the personality profiles of the mediums who are part of the selected clinical population sample, although these results do not prove the fraudulent nature of the mediumistic activity carried out by the mediums, and therefore what has been obtained should be read in a more general key, subjecting mediums in mediumistic activity to technical instrumentation (electroencephalogram, functional magnetic resonance imaging, signal potential and audio-video) to verify their outcomes. From the psychological point of view, the results obtained demonstrate the fallible subjective interpretation of reality [67-69] and the undoubted need for psychotherapeutic intervention (preferably cognitive-behavioural and/or strategic) of the subjects belonging to the selected population sample [70-72], including pharmacological, depending on the symptoms manifested and the severity of the morbid condition.

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