Changing Self Perceptions

A controlled efficacy study of the Quadrinity Process

by Christiane Windhausen

A Synopsis of the Windhausen Dissertation Research
by Ron Meister Ph.D., December 1998

Methodology and Analysis Commentary
by Michael R. Levenson, Ph.D. and Carolyn M. Aldwin, Ph.D.

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Introduction

The opportunity for good scientific research in an academic environment concerning clinical issues and group therapy has been effectively realized by the German psychologist Christiane Windhausen. From 1995 to 1997, while at the Muenster University, she showed an interest in the benefits of the Quadrinity Process and was able to marshal support for her research idea in the form of a dissertation study at her graduate school. She successfully compared the results of group therapy in a hospital setting versus an 8 day Quadrinity Process training with a number of psychological tests. Her aim was to clarify what benefits, if any, may be derived from the Quadrinity Process.

This German dissertation research study by Christiane Windhausen entitled: *Veraenderte Selbst-Bilder: Eine kontrolierte Effektivitaetsstudie mit Katamnese zum—Quadrinity Prozess Changing Self Perceptions: A controlled efficacy study of the Quadrinity Process* was completed by January 1997 at the Westfaelische Wilhelms-Universitaet, Muenster, Germany.

As a clinician and consultant, it has been with some satisfaction that I have been able to review this dissertation. In the following pages, I will attempt to follow the spirit of her dissertation, but will not replicate some of the more complex research details of her 156 page dissertation. Those of you wishing to read the complete dissertation in German may contact the **Hoffman Institute** in order to obtain a copy.

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Executive Summary

The theme and purpose of the Windhausen study was to examine the effectiveness of the Quadrinity Process. On a pragmatic level, Windhausen was also concerned with the quality assurance regulations of German health laws, which require efficacy studies in order for specific therapies to be legally accepted as treatment modalities. Her dissertation therefore serves as a personal, professional, legal and scholarly endeavor to clarify a number of hypotheses. She enumerated a number of hypotheses.

The hypotheses:

1. The Quadrinity Process offers long-term changes.
2. In the examination of the two groups, the effects of the 8 day Quadrinity Process are larger and more stable than those of the three-month clinical therapy control group.
3. The therapeutic results of the Quadrinity Process show themselves in the following dimensions:
   a) reduction of reported symptomatology;
   b) increased self worth and self acceptance;
   c) increased self assurance;
   d) development of emotional competence (self-awareness, growth potential, ability to overcome problems, ability to deal with changes, consciousness of responsibility, etc.);
   e) increased ability to deal with life circumstances;
   f) the movement of self perception towards a picture of the desired ideal.

These hypotheses were measured by a number of paper and pencil tests. The majority of the tests are in the German language and authorship, however a translated SCL 90-R a test of American origin, was also included. The tests, which took approximately 1.5 hours to complete, were administered to a 56 of Quadrinity Process students and the selected patients with a 22 at the hospital clinic. These test were repeated immediately after treatment and again at three and six months after treatment. A further probe of the results for the Quadrinity Process students was repeated 12 months post-treatment.

The results were robust. Measures showed statistically significant results over a one-year period. For instance, among the many documented changes, the scores of the *Frankfurter Selbstkonzeptskalen*, a self-concept scale, rose significantly and remained stable. Other significant changes include changes to the *Problembewaeltigung* and the *Verhaltens-und die Allgemeine Selbstwert-schaetzung* scales, which address problem solving, relationships, and general self worth and judgment scales. All told, the changes in the Quadrinity Process were significantly greater than the changes in the three-month group therapy clinic program.

The Symptom Checklist 90 Revised (SCL 90-R), a list of 90 questions concerning medical symptoms, was included in the study. Depressive symptoms, for instance, were significantly reduced after the Quadrinity Process had been taken. The reduction of fear, was one of the most important results in the *Unsicherheitsfragebogen*—Confidence questionnaire. In the total of 38 scales, 11 of those scales showed significant statistical differences for those who took the Quadrinity Process. These scales concerned themselves with self worth, self assurance, empathy and capacity for consensus.

In all, the dissertation results are encouraging. Windhausen comes to the conclusion that the Quadrinity Process is a highly effective one. She finds the changes positive, stable and long-term.

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Theoretical Underpinnings

A previous author, the Fullbright scholar **Claudio Naranjo, MD**, has spoken to the issue of the underlying theory of the Quadrinity Process. In a monograph entitled *The Quadrinity Process: A New Synthesis* (1993), Naranjo elegantly lays out the internal working of the Process as an experience that touches the behavioral, psychodynamic, humanistic and spiritual domains. A major theme of his paper is the strength of transpersonal psychology, as a method that brings transpersonal value, value that transcends the self. He argues that the Quadrinity Process is methodologically sound, and enjoys its success due to its inspired adherence to common principles of transpersonal psychology.

Windhausen, on the other hand, inspired by the concept of the structure of psychotherapy and the dynamics of groups, is most interested as the Quadrinity Process as a *Ritual des Uebergangs*—Ritual of Transition. She argues that the Quadrinity Process is, due to its complexity and purpose, experienced as having existential meaning. She posits it is during these highly structured yet meaningful experiences that the individual participant moves forward into a new chapter of his or her life.

She argues that in the classic initiation ritual marking the end of puberty, each adolescent bears the full weight and responsibility of the adult as a new and mature member of the community. In the Quadrinity Process for adults, she argues that many participants are in a specific phase of their life, which is experienced as a crisis. They are often seeking a remedy for this crisis, looking for support and a new orientation. Or, they are standing at a crossing, such as at a divorce or serious illness, and are seeking to begin a new life phase, fully conscious.

Therefore, similar to the classic transitional rituals of puberty, the Quadrinity Process, especially in the first day or two, encourages a clear separation from everyday habits and ways of thinking. This is the move into the forest, into a contemplative mind set. This is called the "separation phase". The continuing process is called the "expansion phase", and finally the "reintegration phase" is experienced.

As Windhausen sees it, the Quadrinity Process has the inner working of the classic initiation rites; for instance, the on-going curriculum of experiences is ever-evolving, carrying the participant to the next level of experience. As a point of information to those who have not taken the 8-day Quadrinity Process, the curriculum is one in which the participant is consistently guided and directed by the instructors to experience a myriad of planned exercises. These planned exercises include emotionally cathartic experiences using visualizations and recollections of parental messages and childhood experiences. Other experiences include such activities as journal writing. Although there are no specific secrets of the process for an incoming participant, they are generally not told what their next day will bring. Windhausen argues that this curricular structure, in the absence of habitual behaviors, offers the potential for an inner life story to unfold and evolve. These outer curricular structures allow the participant to include inner psychic chaos (anti-structure) which then allows the individual to continue the transformative process in rich and various ways.

Windhausen, on a theoretical level, argues the parallels between the therapeutic process and the initiation (ritual) process. She suggests that the Quadrinity Process is a similar process in which things to be feared, things to be discovered, those things that are painful, unsavory personality characteristics and the like are faced in this structured (read ritualistic) environment with the likelihood that positive change will occur.

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The Procedure & Methodology

The four paper and pencil self-report instruments of this dissertation study are: *The Frankfurter Selbstkonzeptskalen (**FSKN**)*; *The Symptom-Check-Liste (**SCL 90-R**)*; *The Unsicherheitsfragebogen (**U-Fragebogen**)*; and *The Giessen-Test (**GTS und GTIS**)*.

The investigator, Christiane Windhausen, began with the axiom that changes occurring in the Quadrinity Process subjects would span social, affective, and cognitive aspects of an individual. Thus the instruments to measure changes varied in terms of their emphasis. The first instrument she chose was concerned mainly with the issues of the Selbstkonzepte Self Concept. The instruments used was: *The Frankfurter Selbstkonzeptskalen (FSKN) Frankfurter*—Self Concept Scales. The FSKN has 78 items and 10 sub-scales. The sub-scales are as follows:

FASL: *Allgemeine Leistungsfaehigkeit*—General Capacity for Responsibility

FSVE: *Verhaltens- und Entscheidungssicherheit*—Capacity for stick-with-it-ness in personal decision-making in everyday circumstances

FSST: *Standfestigkeit gegenueber Gruppen und bedeutsamen anderen*—Capacity for representing one's own opinion in the face of authority and group interchanges

FSKU: *Kontakt- und Umgangsfaehigkeit*—Capacity to commence and end conversations, to successfully mingle in social contexts

FSWA: *Wertschaetzung durch andere*—Self worth, as seen by others, especially in the family

FSIA: *Irritierbarkeit durch andere*—Emotional agitation through others influence

FSGA: *Gefuele und Beziehungen zu anderen*—Feelings and relationships with others

FSSW: *Allgemeine Selbstwertschaetzung*—General feelings of self worth

FSEG: *Empfindlichkeit und Gestimmtheit*—Sensitivity and Sensibility

Windhausen chose the second instrument to gauge mainly the number and severity of medical and psychological complaints. The instrument used was the *Symptom-Check-Liste (SCL 90-R)* (German Edition). This is a 90 item self-report test, in which the subject chooses the severity of symptom (rating from 1-5) from no symptoms to severe symptoms. There are 9 sub-scales for the SCL 90-R. They are the following:

SCL 1: *Somatisierung*—Somatization

SCL 2: *Zwanghaftigkeit*—Obsessive-Compulsive

SCL 3: *Unsicherheit im—Sozialkontakt* Interpersonal Sensitivity

SCL 4: *Depressivitaet*—Depression

SCL 5: *Aengstlichkeit*—Anxiety

SCL 6: *Aggressivitaet und Feindseligkeit*—Hostility

SCL 7: *Phobische Angst*—Phobic Anxiety

SCL 8: *Paranoides Denken*—Paranoid Ideation

SCL 9: *Psychotizismus*—Psychotism

The third instrument Windhausen used was the *Unsicherheitsfragebogen (U-Fragebogen)* Confidence Questionnaire. This test has 65 items, from which 6 sub-scales have developed:

U1: *Fehlschlag- und Kritikangst*—Fear of blame and criticism

U2: *Kontaktangst*—Fear of contact from those of the opposite sex, fear of responsibility

U3: *Fordern koennen*—Inability to set plans and set plans into motion

U4: *Nicht-nein-sagen-koennen*—Inability to say no

U5: *Schuldgefuehle*—Feeling of self-blame in relation to own actions as they relate to and affect others

U6: *Anstaendigkeit*—Inappropriately exaggerated feelings of embarrassment

The fourth instrument used sought to clarify the notion of self-perception and the ideal-self-perception of the subjects. Self-perception is simply the picture that the person might have of themselves. Ideal-self-perception is a picture of a future goal, one that has not yet been realized. Windhausen used the *Giessen-Test (GTS und GTIS)*. There are 40 items and a number of scales were specifically chosen to answer research questions dealing with relationships with others, emotional styles and perceptions of self.

GTS 1: *Soziale Resonanz*—Differentiating attributes of being loved or shunned in social settings

GTS 2: *Dominanz*—Differentiating attributes of dominance, showing authoritarian traits or self effacing submissive qualities

GTS 3: *Kontrolle*—Differentiating attributes of control — either uncontrolled behavior or over-controlled behavior

GTS 4: *Grundstimmung*—Differentiating attributes of either hypomanic or depressive styles of interpersonal relationships

GTS 5: *Durchlassigkeit*—Differentiating attributes of retentive or expressive styles of interpersonal relationship

GTS 6: *Sociale Potenz*—Differentiating attributes regarding social skills such as demonstrated comfort in heterosexual contact, free with imagination, ability to socialize easily

Collectively, the above questionnaires took approximately 1.5 hours to complete. Both the experimental group (Quadrinity Process) and the control group (3-month group therapy clinic) finished the questionnaires before the treatment. The second sitting for answering the questions was directly after the treatment. Further requests for completing the questionnaires occurred at 3 and 6 months after the treatment. The Quadrinity Process group has a further probe after a 12-month period. In both groups, the voluntary completion of the test diminished with approximately equal frequency. That is, the number of voluntary respondents diminished after each testing with both the experimental and control groups, in approximately equal proportion.

The experimental and control groups did vary in size. There was finally an n=56 for the experimental group, while the control group had an n=22. The experimental group showed a return of the questionnaire with an n=44 for the 12 month post-intervention testing, while the control group was not tested for this last analysis. The average age ranged in the 30-40 year age group, while the female population of both groups was at 70%. Both groups showed a high percentage of professionals, especially including those in the health professions. Another highly represented group was sales people. These demographics resulted in a higher than average income range.

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The Results

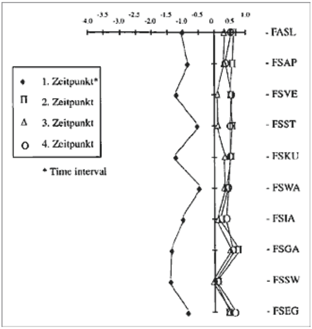
The Windhausen results are significant, both in their statistical analysis and in terms of the theoretical implications. In the Procedures and Method section above, the hypotheses were listed. Below, in the Results section, the hypotheses together with the evidence for their supportive data are presented.

Hypothesis 1: The Quadrinity Process offers long-term changes.

Windhausen's first hypothesis of her dissertation was that the Quadrinity Process offers long-term changes. This hypothesis was supported by the evidence in *The Frankfurter Selbstkonzeptskalen (FSKN) Frankfurter*—Self Concept Scales. For instance, below the reader can view this author's adapted

Figure 12 of the Windhausen dissertation. These are the results from the 10 Frankfurter (FSKN) sub-scales. Note that the FSKN sub-scales test for self concept. This scale recorded the individual's perception of self-worth, his worth as seen by others, and his ability to deal with exchanges in the social environment.

Figure 12



Note that the left string of scores is the first set of tests performed by the Quadrinity Process subjects.

The three right strings of scores are all post-intervention. Although somewhat difficult to decipher which of the three post-intervention test points are most significantly changed, what is clear is that immediately after the intervention, as well as 3, 6, and 12 months later, scores show significant changes that have not deteriorated over time. The above 10 FSKN scales refer to the listed scales below.

FASL: *Allgemeine Leistungsfaehigkeit*—General Capacity for Responsibility

FSAP: *Allgemeine Problembewaeltigung*—General Efficacy at Problem Solving

FSVE: *Verhaltens- und Entscheidungssicherheit*—Capacity for stick-with-it-ness in personal decision-making in everyday circumstances

FSST: *Standfestigkeit gegenueber Gruppen und bedeutsamen anderen*—Capacity for representing one's own opinion in the face of authority and social interchanges

FSKU: *Kontakt- und Umgangsfaehigkeit*—Capacity to commence and end conversations, to successfully mingle in social contexts

FSWA: *Wertschaetzung durch andere*—Self worth, as seen by others, especially in the family

FSIA: *Irritierbarkeit durch andere*—Influence of others on perceptions and emotional perameters

FSGA: *Gefuehle und Beziehungen zu anderen*—Feelings and relationships with others

FSSW: *Allgemeine Selbstwertschaetzung*—General feelings of self worth

FSEG: *Empfindlichkeit und Gestimmtheit*—Sensitivity and Sensibility

Hypothesis 2: In the examination of the two groups, the effects of the 8 day Quadrinity Process are larger and more stable than those of the three-month clinical therapy control group.

This hypothesis is supported by the data demonstrated in the adapted Tables **10** and **11** shown below. What this data suggests that exposure to the group therapy did not have the same effect on the scores as did exposure to the Quadrinity Process. That is, the symptoms reported by the hospital group did not diminish while the report of symptoms and their severity did significantly diminish with the Quadrinity Process group. This data helps confirm the second hypothesis.

Table 10

	SCL1	SCL2	SCL3	SCL4	SCL5	SCL6	SCL7	SCL8	SCL9
1. Zeitp.	2.85	3.41	3.06	3.21	3.22	3.03	3.33	3.14	3.34
2. Zeitp.	3.3	2.71	2.66	2.64	3.21	2.67	2.41	2.44	2.69
3. Zeitp.	2.02	2.05	2.19	2.19	2	2.18	2.1	2.26	2.03
4. Zeitp.	1.94	1.93	2.09	1.95	1.57	2.12	2.16	2.16	1.94
n	55	55	55	54	52	52	45	50	47
df	3	3	3	3	3	3	3	3	3
chi	47.25	50.2	18.98	29.79	66.96	17.41	26.49	17.59	36.1
Wahr.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 11

	SCL1	SCL2	SCL3	SCL4	SCL5	SCL6	SCL7	SCL8	SCL9
1.Zeitp.	2.88	3.08	2.92	2.88	3.04	2.58	.69	3.12	2.69
2.Zeitp.	2.27	2.42	2.62	2.19	2.5	2.73	2.15	2.15	2.54
3.Zeitp.	2.15	1.69	1.65	2.88	1.85	1.88	2.23	1.96	2.08
4.Zeitp.	2.69	2.81	2.81	3.04	2.65	2.81	2.92	2.77	2.69
2.69	13	13	13	13	13	13	13	13	13
df	3	3	3	3	3	3	3	3	3
chi	2.792	8.4692	7.8234	7.1077	5.7	4.1438	3.1846	6.7158	1.9846
Wahr.	0.4248	0.0372	0.0498	0.685	0.1272	0.2453	0.364	0.0815	0.5756

Note the comparison of the two groups. In Table **10** the probability scores are at 0.0000 for the experimental Quadrinity Process group. The these low probabilities reflect the fact that the Symptom Check List scores become consistently lower over a 3,6, and 12 month interval, after the exposure to the 8 day QUADRINITY PROCESS.

Note that the probability scores in Table **11** for the control group, (the three-month group therapy at a hospital), are not statistically robust. Here the probability ranges from 0.5756 at the highest level to 0.0372

SCL 1: *Somatisierung*—Somatization

SCL 2: *Zwanghaftigkeit*—Obsessive-Compulsive

SCL 3: *Unsicherheit im Sozialkontakt*—Interpersonal Sensitivity

SCL 4: *Depressivitaet*—Depression

SCL 5: *Aengstlichkeit*—Anxiety

SCL 6: *Aggressivitaet und Feindseligkeit*—Hostility

SCL 7: *Phobische Angst*—Phobic Anxiety

SCL 8: *Paranoides Denken*—Ideation Paranoid

SCL 9: *Psychotizismus*—Psychotism

Hypothesis 3 (a): Reduction of reported symptomatology.

Windhausen hypothesized that the symptoms reported by the subjects on *The Symptom-Check-Liste (SCL 90-R)* would show statistically significant reductions. The adapted Table **10** is evidence for the confirmation of this hypothesis. Notice that the mean scores of the 4 different Zeit time intervals, are reduced in terms of severity over time. That is, symptoms are reported as less severe after the Quadrinity Process over time.

Hypothesis 3 (b): *Frankfurter Selbstkonzeptskalen (FSKN)*, the sub-scales FSST and FSEG, were analyzed to specifically clarify this hypothesis. The FSST acronym for *Standfestigkeit gegenueber Gruppen und bedeutsamen anderen*—Capacity for representing one's own opinion in the face of authority and social interchanges and the FSEG acronym for Empfindlichkeit und Gestimmtheit Sensitivity and sensibility both address the 3(b) hypothesis. Windhausen's findings were partially significant. The adapted **Table 8** gives the chi-square results, showing a probability of 0.0109 for the FSST scale, and a probability score of 0.2834 for the other sub-scale FSEG. These are the results for the 3-month group therapy clinic. The results of the Quadrinity Process show very significant results of probability 0.0000 and 0.0000 for the FSST and FSEG sub-scales respectively. These results are found in the adapted **Table 7** below.

Table 8

	FSAL	FSAP	FSVE	FSSW	FSEG	FSST	FSKU	FSWA	FSLA	FSGA
1.Zeitp.	1.91	2.07	2.14	1.98	2.2	1.89	2.16	2.16	2.09	2.147
2.Zeitp.	2.68	2.68	2.59	2.84	2.84	2.98	2.36	2.7	2.52	2.62
3.Zeitp.	3.18	3.11	3.05	2.82	2.68	2.91	3.3	2.84	2.84	2.14
4.Zeitp.	2.23	2.14	2.23	2.36	2.27	2.23	2.18	2.3	2.55	2.07
n	22	22	22	22	22	22	22	22	22	21
df	3	3	3	3	3	3	3	3	3	3
chi	12.1636	9.6136	6.7636	6.7227	3.8045	11.1682	11.4682	4.1727	3.7773	9.1
Wahr.	0.0068	0.2220	0.0798	0.0813	0.2834	0.0109	0.0094	0.2434	0.2865	0.028

The Table 7

	FSAL	FSAP	FSVE	FSSW	FSEG	FSST	FSKU	FSWA	FSLA	FSGA
1.Zeitp.	1.26	1.35	1.33	1.25	1.22	1.29	1.1	1.55	1.33	1.27
2.Zeitp.	3.04	3.11	2.88	2.98	3.01	2.8	2.81	2.65	2.65	2.94
3.Zeitp.	2.72	2.71	2.74	2.76	2.57	2.77	2.65	2.79	2.77	2.56
4.Zeitp.	2.98	2.83	3.04	3.04	3.16	3.14	2.72	3.01	3.25	2.93
n	56	56	56	56	56	56	56	56	56	56
df	3	3	3	3	3	3	3	3	3	3
chi	70.88	62.17	62.84	71.27	79.58	68.94	21.611	42.316	68.052	41.705
Wahr.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hypothesis 3 (c): Increased self-assurance.

Windhausen chose three sub-scales to demonstrate her hypothesis that the experimental group would show higher degrees of self-assurance over time. Those scales were the SCL3, (From the SCL 90-R), the *Unsicherheit im Sozialkontakt*—Interpersonal Sensitivity and from the FSKN she chose the FSST, *Standfestigkeit gegenueber Gruppen und bedeutsamen anderen*—Capacity for representing one's own opinion in the face of authority and group interchanges, and the *FSIA Irritierbarkeit durch andere*—Influence of others on perceptions and emotional perameters. The probability scores, as shown in Table **10** above, for the SCL3 score was 0.0003, again a robust and statistically significant score. The FSST and FSIA, as noted in Table **7** were both at a probability level of 0.0000.

Hypothesis 3 (d): Development of emotional competence (self-awareness, growth potential, ability to overcome problems, ability to deal with changes, consciousness of responsibility, etc.).

This hypotheses drew from the following scales for confirmation and support: From the FSKN, the sub-scales of FASP, FSAL FSVE, and FSST. From the Giessen-Test (GTS und GTIS) the GTS 1, *Soziale Resonanz*—Differentiating attributes of being loved or shunned in social settings, and the GTS 2, *Dominanz*—Differentiating attributes of dominance, showing authoritarian traits or self effacing submissive qualities, and the GTS 3, *Kontrolle*—Differentiating attributes of controleither uncontrolled behavior or over-controlled behavior, as well as the GTS 5: *Durchlassigkeit*—Differentiating attributes of retentive or expressive styles of interpersonal relationship, were chosen. The *Unsicherheitsfragebogen (U-Fragebogen)*—Confidence Questionnaire was also used to confirm or disconfirm this hypothesis. Results for the Giessen-Test sub-scales 1, 2, 3, and 5 are in the adapted Tables **17** below Again, probability scores show significant statistical results, at a probability level of 0.0000, 0.0220, 0.0066 and 0.0000.

Table 17

	GTS 1	GTS 2	GTS 3	GTS 4	GTS 5	GTS 6	GTS 7	GTS 8
1. Zeitp.	1.68	2.16	2.85	3.56	3.21	3.22	2.11	3.15
2. Zeitp.	2.84	2.91	2.02	2.14	2.13	1.97	2.69	2.72
4. Zeitp.	2.57	2.47	2.54	1.9	2.25	2.4	2.64	1.98
n	56	56	56	56	56	56	56	56
df	3	3	3	3	3	3	3	3
chi	30.45	9.627	12.252	52.408	24.236	27.546	7.184	29.245
Wahr.	0.0000	0.0220	0.0066	0.0000	0.0000	0.0000	0.0663	0.0000

GTS 1: *Soziale Resonanz*—Differentiating attributes of being loved or shunned in social settings

GTS 2: *Dominanz*—Differentiating attributes of dominance, showing authoritarian traits or self effacing submissive qualities

GTS 3: *Kontrolle*—Differentiating attributes of controleither uncontrolled behavior or over-controlled behavior

GTS 4: *Grundstimmung*—Differentiating attributes of either hypomanic or depressive styles of interpersonal relationships

GTS 5: *Durchlassigkeit*—Differentiating attributes of retentive or expressive styles of interpersonal relationship

GTS 6: *Sociale Potenz*—Differentiating attributes regarding social skills such as demonstrated comfort in heterosexual contact, free with imagination, ability to socialize easily

Hypothesis 3 (e): Increased ability to deal with life circumstances.

To confirm or disconfirm the hypothesis of the increased ability to deal with life circumstances, this investigator used FSKN, the sub-scales of FSKU, FSWA, AND FSGA. From the Giessen-Test (GTS und GTIS) the GTS 2, *Dominanz*—Differentiating attributes of dominance, showing authoritarian traits or self effacing submissive qualities, and the GTS 6, *Sociale Potenz* — Differentiating attributes regarding social skills such as demonstrated comfort in heterosexual contact, free with imagination, ability to socialize easily. Using Table **7** and Table **17** results shows the probability scores ranging from scores of 0.0220 to 0.0000 for the Giesen instrument. The Frankfurter (FSKN) scores ranged from the 0.0001 to the 0.0000 level for all subscale scores of FSKU, FSWA and FSGA.

Hypothesis 3 (f): The movement of self-perception towards a picture of the desired ideal.

This hypothesis, although to be measured by the Giesen instrument, was probably not adequately placed into the context of this instrument. In other words, the statistical results of the "ideal picture" are not realized. The Giesen sub-scales show probability scores from 0.6161 to 0.0212. This suggests less than confirmation of the hypothesis that the individuals have realized their desired ideal.

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Synopsis & Discussion

Long-term changes are highly desirable for the proponents of any clinical or educational intervention. To seek long term changes, and then to have evidence for the support of such changes, is not only desirable, but an ethically reasonable goal for the proponents of any educative methodology. Bob Hoffman, the originator of the Quadrinity Process, often alluded to long-term changes, but had little supporting evidence beyond his own observations, and anecdotal reports. This dissertation study clearly supports this notion of significant changes over time. Further longitudinal studies of the same subjects would further confirm the longevity of the Quadrinity Process experience.

Long term changes are desirable in group therapy and educational settings. Furthermore, some interventions are more prone to creating positive changes than others. Windhausen, in the examination of the two groups, effectively demonstrated that the effect of the 8-day Quadrinity Process was larger and more stable than that of the three-month clinical therapy control group. This is an important result, in that efficacy of any method or process is an important ethical and financial consideration for both health professionals and their clients alike.

Windhausen hypothesized a reduction of reported symptomatology, increased self worth and self acceptance, increased self assurance, development of emotional competence, and increased ability to deal with life circumstances. She has effectively marshaled supporting evidence for all these hypotheses, and has made her point that the Quadrinity Process is an effective intervention for positive change of the individual. A cautionary statement must be added to these strongly supportive results, in that a replication study, in another venue, with different investigators would further confirm or disconfirm the present report. Additionally, other tests and styles of investigation would add richness and texture to the question of the efficacy of the Quadrinity Process

Commentary on Methodology, Results Analysis, and Future Research

This is obviously a preliminary study with an understandably small sample size. The design does not include random assignment of the subjects to the experimental control conditions. As is obvious from Table 1, (Windhausen, p. 95), the Quadrinity Process individuals were substantially older, and more educated. The researcher did not control for these demographic differences in the analyses.

A further condition of the study was that there were many scales administered to this rather small sample, resulting in a n to k ratio problem, not using the Bonferroni correction. In other words, the significance of the results were inflated, as one would expect. The validity and reliability of the scales themselves were not documented in the dissertation. With the exception of the SCL 90-R it is not clear whether or not these scales have been published, as no references have been given. An Appendix with these measures would have aided in the interpretation of this study.

Third, the analytic plan was somewhat puzzling. Of course, translating from the English to German language and national differences may have added to the differences in the statistical presentation and planning. While it is understandable that the author would want to standardize the SCL 90-R, which is clearly skewed in the sample, scoring such measures in such a small sample is usually not attempted. It is not clear why the author chose non-parametric statistics once the data had been standardized. As far as can be determined from the Tables, primarily within-group analyses were done using the Friedman test. Thus, one cannot determine if there were between-group differences over time.

The preferred method of analysis would have been a repeated-measures MANCOVA co-varying out demographic differences between groups. While the data are skewed, MANCOVA's are typically robust enough to overcome problematic distributions. Only a group by time interaction effect could determine whether the groups do vary significantly over time.

The above suggestions, using these added methodological features, may possibly show robust results and high levels of significance. With randomization, effects can be established with increased confidence. We highly recommend the above analysis with larger samples and randomization be conducted in the future.

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