

The Effects of Reality Therapy/Choice Theory Principles on High School Students' Perception of Needs Satisfaction And Behavioral Change

Byron D. Loyd

The author is a certified high school counselor at Brookwood High School, Snellville, GA, and is a faculty member with Western International University. This manuscript was adapted from his doctoral dissertation at Walden University.

ABSTRACT

This study investigated the extent to which exposure to Choice Theory increased high school students' perceived satisfaction in 4 psychological needs: belonging, power, freedom, and fun. A quasi-experimental, nonrandomized pretest/posttest design was used. For 5 sessions, the treatment group received exposure to Choice Theory principles. After the first posttest, the control group also received exposure to Choice Theory principles. A second posttest was administered to each group. A 2 x 3 with repeated measures ANOVA was conducted on all data concerning the perceived satisfaction of each of the 4 psychological needs after the end of the second exposure. The results suggested that high school students' exposure to Choice Theory principles had a positive sustaining effect on their perception of satisfaction in 3 of the 4 psychological needs. This study could prove beneficial to educators; teaching students to satisfy their needs in appropriate and effective methods may help decrease disruptive and destructive behavioral choices, and may increase behavioral choices that effectively satisfy their needs.

Of the many problems facing schools today, addressing the needs of at-risk youth has become one of the most difficult problems, one that will likely grow well into the 21st century (Richardson & Wubbolding, 2001). These problems are predicted to continue to mount with "frequency and severity" (Morse, 1996, p. 126). Society expects teachers and counselors to develop productive relationships with youth who have difficulty accepting responsibility, managing their emotions, making responsible choices, and believing adults can and want to help them. It can be a difficult task to develop and nurture meaningful relationships with youth who have a history of abuse, neglect, and rejection by caretakers.

Many current researchers agree with the concept of human needs and the disruptive behaviors associated with not having those needs met. For example, Ryan and Deci (2000), creators of the Self-Determination Theory (SDT), have performed extensive and widespread research over the past several decades (p. 69). Through their research, they have concluded that there are "innate psychological needs that are the basis for self-motivation and personality integration," and that the meeting of these needs "appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being" (p. 69). Ryan and Deci (2000) stated their definition of a psychological need by declaring, "A psychological need is an energizing state that, if satisfied, is conducive to

health and well-being but, if not satisfied, contributes to pathology and ill-being." They go on to specify that psychological needs are "essential nutrients that individuals cannot thrive without satisfying all of them, any more than people can thrive with water but not food" (p. 76).

At-risk student behaviors and their relationship to unmet psychological needs are viewed through the lens of Choice Theory (1998a), authored by William Glasser. What contributes to the motivation of students who continue to make choices to engage in at-risk behaviors? Glasser maintains that adolescents make ineffective and self-damaging choices in an attempt to fulfill basic human needs such as freedom, belonging, or power (1998a).

According to Choice Theory (1998a), there exists an interconnection between needs satisfaction and behavior. Glasser wrote, "Our behavior is always our best attempt to control the world and ourselves as part of that world so that we can best satisfy our needs." He further suggests, "Every client is choosing some sort of painful, self-destructive behavior in a misguided or misunderstood attempt to regain control over a poorly controlled, need-frustrating life" (Glasser, 1998a, p. 5). Mickel (1994) states the basic needs (as defined by Glasser) are the "determinants of behavior. Unmet needs lead to violence, and violence is an irresponsible way to meet our basic needs" (p. 7-8). Many students choose at-risk and disruptive behaviors in order to gain a sense of control, and disruptive behavior is a common response to unfulfilled needs (Glasser, 1998b).

In the Choice Theory literature, innate basic needs are also referred to as "genetic instructions," and "internal instructions," that are "biologically encoded" (Buck, 2002, p. 7) and "genetically programmed" into the human at conception (Glasser, 1998a, p. 28). One of the fundamental tenants of Choice Theory is that all behavior is internally motivated and therefore, not a response to external stimuli, that "all of our behavior is our constant attempt to satisfy one or more of five basic needs that are written into our genetic structure" (Glasser, 1998b, pp. 18-24). Skeen (2002), writing about these needs, declared they "push from within for outward expression" (p. 14). Wubbolding refers to these innate human needs as "internal forces or internal motivations" (2000, p. 10). Based on the Choice Theory premise that the human needs are genetically encoded, it should be kept in mind that the five needs are considered universal and common to every human being, while specific behaviors that each person will choose to satisfy these needs will be unique to each individual human being. The universal observation is that humans will

feel pleasure when a need is met and frustration when a need goes unsatisfied; there is a constant urge to act to satisfy the unmet needs (Glasser, 1998).

Rationale for the Study

Research has shown that a lack of needs satisfaction contributes to disruptive and self-destructive behaviors, low academic motivation and performance, and unsatisfying social relationships in the lives of some high school students. Students may choose ineffective behaviors due to a lack of understanding of the connection between their innate needs and their behavior; they also lack the knowledge of how to effectively satisfy their needs. This study was designed to explore and evaluate what effects Choice Theory/Reality Therapy principles may have on high school students' perceived satisfaction of the four psychological needs as defined by Glasser (1998), (Belonging, Power, Freedom, and Fun), and how these principles effect behavioral change. The Choice Theory/Reality Therapy principles were presented within the framework of the *Choice Connections Manual* (Loyd, 2003). This study was also intended to provide high school counselors with a manual, of which its principles have been empirically tested, for use in guiding students into making more effective choices. Teaching students Choice Theory/Reality Therapy principles could aid students in moving toward assuming responsibility for satisfying their personal needs, thereby encouraging more positive behavior changes. In the current literature, needs satisfaction is linked to positive coping skills, an internal locus of control, academic motivation and success, and greater personal responsibility. Also, the current literature indicates that ineffectively meeting these needs leads to frustration, higher levels of anger intensity, disruptive classroom behaviors, lack of academic motivation and performance, personal relationship dissatisfaction, and an external locus of control. The *Choice Connections Manual* (Loyd, 2003) may be an effective tool to lead students into choosing more effective life behaviors, thereby, effecting social change.

Four research questions were addressed in this study. For the purpose of this article, one research question will be given addressing all four Choice Theory psychological needs.

To what extent will exposure (instruction, discussion, application) to Choice Theory/Reality Therapy principles, as presented within the framework of the *Choice Connections Manual* (Loyd, 2003), increase perceived need satisfaction for Belonging, Power, Freedom, and Fun, and effect behavioral change in high school students?

METHOD

Participants

In an attempt to answer the research questions, the following quantitative study was conducted with two classes ($n = 68$) of high school students. One class was designated as the treatment group ($n = 34$), and the other class, the control group ($n = 34$). To determine the two participating classes, five classes,

taught by the same teacher, were numbered 1-5, respectively. From these five numbers, two were drawn blindly from a container. The two classes became the research groups. From these two, each class was re-numbered, 1, 2 respectively, and from the remaining two numbers, one number was drawn blindly from a container. The first number drawn became the treatment group. The non-drawn class became the control group. Due to the nature of the school setting, this was a "sample of convenience" (Triola, 2002, p. 20).

Due to the structure and constraints of the high school environment, randomly assigned participants were not possible. Pre-formed classroom student assignments could not be disrupted and must remain intact. The classes that represent the treatment and control groups were randomly chosen from a pool of five classes. Since any one teacher at the chosen high school has five teaching periods and one planning period, and the constant of having the same teacher needed to be maintained, only a pool of five classes could have been used. This study was a quasi-experimental study, a design that Babbie (2001), referred to as "the non-equivalent control group design" (p. 341). He gave the example of a school classroom being appropriate for this type of design.

Materials

The chosen instrument used to measure the perceived level of needs satisfaction was Pete's Pathogram, a very practical and effective assessment tool used by Choice Theory/Reality Therapy counselors, originally developed by Arlin Peterson and Gerald Parr (1982, 1992). One rationale behind this decision was that Pete's Pathogram is the only instrument that measures the specific aspects of the four psychological needs of Choice Theory needed for this project. Another rationale was that a substantial amount of empirical research has been conducted using Pete's Pathogram, as opposed to a limited amount of empirical research conducted with other available instruments. This instrument assesses the self-perceived (a) interest, strength, or intensity of each of Glasser's four psychological needs, (b) the time and effort invested in satisfying each need, and (c) the success attained in satisfying each need. This instrument was originally designed to be a clinical instrument to provide a graphic illustration for clients to measure the perceived intensity of their basic needs as explained by Glasser, the time and effort the students were investing in attempting to satisfy their needs, and the success attained in satisfying each need (Peterson, Chang, & Collins, 1998, p. 27). The rating is subjective, but consistent with the Choice Theory concept of self-evaluation (Sullo, 1997, p. 115).

Pete's Pathogram revised (1992) is designed to maintain the clinical utility of the original pathogram (1982), while adding a consistent numerical scale (1-9), with a mean score of 5, and a standard deviation of 1. The Pathogram is designed to measure quantitatively, various dimensions of the psychological needs of belonging, power, freedom, and fun (Peterson & Truscott, 1988). The Pathogram is utilized to compare the profiles in regard to perceived needs, time/effort invested, and success

achieved in satisfying each psychological need. Also, the inter-relationships of each need to each of the other needs have been reported. It has been shown to be an effective tool for discovering the internal world of students, as well as an effective tool for counseling (Peterson & Parr, 1982; Peterson & Truscott, 1988).

Procedures

Each group was given a pretest, consisting of Pete's Pathogram. This instrument assessed self-reported satisfaction of each of the four psychological needs (Belonging, Power, Freedom, and Fun) as defined by Choice Theory. The test data were collected and recorded. Then, the treatment group was exposed to Choice Theory/Reality Therapy principles, as presented within the framework of the *Choice Connections Manual* (Loyd, 2003) through five consecutive, 50-minute sessions, which consisted of instruction, discussion, personal application, and planning for practically applying these principles to life situations. When the five sessions were completed, a posttest consisting of Pete's Pathogram was administered to the treatment and control groups. Data were collected and recorded.

To increase the statistical power of this study, the following additions were performed. After the posttest, the Choice Theory/Reality Therapy principles were administered through five consecutive, 50-minute sessions, to the control group. At the completion of the additional five sessions, a posttest was administered to both groups. Finally, repeated measures of analysis of variance were used. These additional steps will serve two functions: (1) A stronger test was created for Choice Theory/Reality Therapy principles in a situation where the participants in the original control group acted as their own control, and (2) A test to determine if any gains from the original treatment group had lasted beyond the original treatment.

The quantitative data obtained from three administrations of Pete's Pathogram were analyzed by SPSS (Norusis, 1993), a statistical analysis program for social sciences. Two different operations of statistical analysis were conducted with the research data collected for each of the four research questions and hypotheses. First, an Analysis of Covariance (ANCOVA) was conducted for the purpose of controlling for any pre-study differences that might have existed between the control and treatment group with respect to the level of need satisfaction prior to this study. This type of analysis was necessary because it was not possible to randomly assign students to control or treatment groups independently; intact, pre-formed groups had to be used. Second, a Repeated Measures Analysis of Variance was conducted for the purpose of testing the equality of means over time. A repeated measure ANOVA is used when all members of a sample are measured under a number of different conditions or over a number of different time periods.

RESULTS

Quantitative Picture

The following table presents a panoramic quantitative pic-

ture of this research study. The mean satisfaction scores for each of the three administrations of Pete's Pathogram are recorded. The treatment group was exposed to Choice Theory principles (TX) after the pretest and the control group was exposed to Choice Theory principles (TX) after the posttest. One can observe the changes in the satisfaction of needs scores after each group was exposed to Choice Theory principles.

Mean Scores for Need Satisfaction

Group	Needs	Pretest	TX	Posttest	TX	Follow up test
Control		N=34		N=34		N=34
	Belonging	6.50		6.85	x	7.44
	Power	6.20		6.52	x	7.14
	Freedom	6.23		6.61	x	7.47
	Fun	7.11		6.91	x	7.91
Treatment		N=34		N=34		N=34
	Belonging	6.70	x	7.44		7.85
	Power	6.11	x	7.61		7.41
	Freedom	6.08	x	7.52		7.67
	Fun	7.20	x	7.67		7.85

The control group's pretest mean score of the satisfaction of Belonging was 6.50, with a standard deviation of 1.69. The treatment group's mean score was 6.71, with a standard deviation of 1.58. This analysis demonstrates that these two groups were statistically equal when this study began.

After treatment with Choice Theory principles, the treatment group's posttest mean score for satisfaction of Belonging rose to 7.44, with a standard deviation of 1.35. The control group's posttest score remained near the pretest score at 6.85, with a standard deviation of 1.74. At first glance, it appears that the treatment by Choice Theory principles increased the satisfaction scores of the treatment group. However, the data analysis revealed no significant statistical improvement in the groups' posttest mean satisfaction scores concerning Belonging. The other psychological needs (Power, Freedom, and Fun) did show a significant statistical improvement in the mean satisfaction scores.

Summary

The four research questions examined the effectiveness of Choice Theory principles on the needs satisfaction levels of Belonging, Power, Freedom, and Fun, as defined by Choice Theory. The findings indicate that with respect to the needs for Power, Freedom, and Fun, Choice Theory principles were effective in increasing the posttest satisfaction scores of the treatment group after their exposure to the principles. The findings also indicate that the follow up test scores of the control group also increased, while the increased scores of the treatment group were sustained at the follow up test.

CONCLUSIONS

Given the research data results presented, the following conclusions were reached:

1. Based on the results of the Pre- and Posttest, exposure to and practice of Choice Theory/Reality Therapy principles by high school students do have a positive effect on those students' perception of satisfaction of three of the four psychological needs of Choice Theory: Power, Freedom and Fun.
2. Based on the repeated measures conducted in the study, exposure to Choice Theory/Reality Therapy principles do have a sustaining effect on students' perception of needs satisfaction of three of the four psychological needs of Choice Theory: Power, Freedom, and Fun.

RECOMMENDATIONS

After evaluating the effectiveness of this study, the following recommendations are presented:

1. When evaluating the satisfaction level of the four psychological needs, some ambiguity could arise due to the many areas in which needs satisfaction could be assessed. For example, a student could score very high in satisfaction in Belonging with reference to family and score very low with reference to the classroom. A more accurate reading of needs satisfaction could be assessed if the focus of needs satisfaction is narrowed to a specific area of life (a specific classroom, family life, extracurricular activities, etc.) when completing Pete's Pathogram.
2. Pete's Pathogram could be reconstructed to include the Survival need. The original Pete's Pathogram only included Glasser's four psychological needs. From the literature, it is evident that the psychological aspects of the Survival need (safety and security) are valid elements to be assessed.
3. A polarized, dichotomous selection of each of the four psychological needs could be created as a forced-choice, self-evaluation and assessment tool, to help students more accurately identify and distinguish the characteristics of each of Glasser's needs.
4. Incorporating personality-profiling instruments, such as the MBTI, with the exploration of the strength and satisfaction of Glasser's needs, may help students to discover any correlations that may exist within the "engine" in their personal Car of Life.
5. This program could be implemented school-wide and continually evaluated as to its progress and effectiveness. Longitudinal studies need to be conducted in an attempt to determine the longevity of the effects of Choice Theory/Reality Therapy principles on elementary, middle, and high school students' perceived needs satisfaction of Glasser's four psychological needs.

FUTURE RESEARCH POSSIBILITIES

The current study was intended to explore the impact Choice Theory principles have on high school students' needs satisfaction. Not only is there a need to add to the research

knowledge base by replicating the current study, but the need also exist to explore the influence of Choice Theory principles on elementary and middle school students. Early exposure to Choice Theory principles may result in early prevention of disruptive and destructive student behaviors.

There is also a need to conduct empirical research in the use of Pete's Pathogram in other specific and focused situations. For example, teachers could conduct studies for a specific classroom atmosphere, where satisfactions of the four psychological needs would be assessed. Results of the Pathogram could help teachers assess present instructional strategies as to their effectiveness in meeting the students' needs. Another example is to have students complete the Pathogram concerning their home life only. The results could have implications concerning the relationships at home and their impact on student behaviors at school. These research possibilities could help teachers and counselors determine school life and classroom effectiveness, home life influences on students, and how extracurricular activity is need satisfying to students. The data could aid educators in planning need satisfying curriculum and teaching strategies to maximize student performance and minimize disruptive behaviors. Studies such as these would also add to the research knowledge base concerning the use of Pete's Pathogram and the effectiveness of Choice Theory principles on students' behavioral choices. Administrators could conduct studies concerning the needs satisfaction of faculty and staff. Results of such studies could aid administrators in staff development and staff management. Such data would also add to the present knowledge base of the use of Pete's Pathogram and the effectiveness of Choice Theory principles in quality management.

IMPLICATIONS FOR SOCIAL CHANGE AND PROFESSIONAL PRACTICE

Considering the continued increase of at-risk and disruptive behaviors, the importance and necessity of this research study conducted with student populations is evident. Since the literature supports the idea of the existence of human needs, supports the idea that needs frustration contributes to student at-risk behaviors, and supports the idea that needs satisfaction contributes to student well being and positive academic performance (Deci & Ryan, 2000), it seems reasonable to conclude that, based on the data results of this study, teaching Choice Theory principles to students can have a positive social impact within education.

The results of this study support the above stated postulation and could also prove significant to school administrators, teachers, parents, and students. Teaching students to meet their needs in appropriate and effective methods may help those students to choose less disruptive and less destructive methods of meeting their needs, enabling them to effectively satisfy their needs. If differences are made in students' lives to the extent that they make less disruptive and less destructive behavioral choices, then this study has contributed to the goal of positive social change, within and without the educational system.

Students in crisis are not a new phenomenon, nor are the concepts of intervention within the educational setting. Margolin, Youga, and Ballou (2002) suggested that although research on student aggression and at-risk behaviors has increased understanding of the problem, "prevention and intervention efforts have achieved only moderate success. Perhaps what is needed is some fresh insight into the problem" (p. 215). This is one reason why this study is exciting and relevant; it contains research results that could offer fresh insight and a fresh approach to helping students make responsible choices. Beck and Dolce-Maule (1998) suggested that the principles of Choice Theory, with their emphasis on effectively satisfying the human needs of students, are the best opportunity for reaching at-risk students (p. 24).

Glasser maintains that adolescents make ineffective and self-damaging choices in an attempt to fulfill basic human needs such as freedom, belonging, power, or fun (1984, 1998a). Glasser's postulations could be crucial and pivotal concepts in dealing with at-risk students. Vass (2002) proposed that those individuals who are able to have their needs met are more likely to be "mentally and physically healthier, more stable and better integrated. Those whose needs are not fulfilled may suffer considerable distress or develop, as a means of coping, antisocial behaviors which are a burden to others or to society at large" (p. 40).

The data results of this study, added to the existing research knowledge base, could have implications for school curriculum and teaching methods. Curriculum and methodology could incorporate the meeting of the four psychological needs within their framework, creating classrooms that are need satisfying for students. Successful interventions for at-risk students experiencing academic or psychological problems could include methods to help students satisfy unmet needs. Students could be trained in the principles of Choice Theory, teaching them more effective behavioral strategies for satisfying their needs, subsequently demonstrating less at-risk behaviors and demonstrating more appropriate behaviors. The idea is to empower students to exercise responsible freedom. In general, students' abilities to satisfy basic needs "appear to be critical for healthy psychological growth" (Vass, 2002, p. 35). The results of this present study, which support and add to the literature, are encouraging, considering the impact this could have on the behavior, academic success, and safety of students. The results of this study may also have an impact on teachers as they create classrooms with a more need-satisfying atmosphere. With students equipped with Choice Theory principles to satisfy their needs more effectively, teachers and administrators may see less disruption, greater quality of work, and happier students.

With a firm foundation of Choice Theory, schools would be equipped to develop students with values that are consistent with internal choice and motivation, quality work, personal responsibility, and needs satisfaction. This, in turn, will produce leaders and citizens in this country who possess these same values that would cultivate and promote educational progress, social reform, and moral enlightenment to future generations.

REFERENCES

- Babbie, E. (2001). *The practice of social research* (9th ed.). Belmont: Wadsworth.
- Beck, M. & Dolce-Maule, D. (1998). The development of a quality school: A four year journey. *International Journal of Reality Therapy*, 18(1), 23-28.
- Buck, N. (2002). *Peaceful parenting*. Chula Vista, CA: Black Forest Press.
- Glasser, W. (1998a). *Choice Theory*. New York: Harper Collins.
- Glasser, W. (1998b). *Choice theory in the classroom*. New York: HarperCollins.
- Loyd, B. (2003). *Choice connections manual: A manual for high school counselors*. Unpublished manuscript. Walden University.
- Margolin, A., Youga, J., & Ballou, M. (2002). Voices of violence: A study of male adolescent aggression. *Journal of Humanistic Counseling, Education & Development*, 41(2), 215-231. Retrieved May 28, 2003 from Academic Search Premier database.
- Mickel, E. (1994). Violence is a chosen behavior. *Journal of Reality Therapy*, 13(1), 7-13.
- Morse, W. C. (1996). The role in caring in teaching children with behavior problems. In N. Long, W. C. Morse, & R. G. Newman (Eds.), *Conflict the classroom: The education of at-risk and troubled students*. (5th ed., pp. 126-132. Austin, TX: Pro-ed.
- Norusis, M. (1993). *SPSS for windows: Advanced statistics, release 6.0*. Chicago: SPSS, Inc.
- Peterson, A. & Parr, G. (1982). Pathogram: A visual aid to obtain focus and commitment. *Journal of Reality Therapy*, 2, 18-22.
- Peterson, A., Chang, C., & Collins, P. (1998). Taiwanese university students meet their basic needs through study of CT/RT. *International Journal of Reality Therapy*, 17(2), 27-29.
- Peterson, A. & Truscott, J. (1988). Pete's pathogram: Quantifying the genetic needs. *Journal of Reality Therapy*, 8(1), 22-32.
- Richardson, B. & Wubbolding, R. (2001). Five interrelated challenges for using reality therapy with challenging students. *International Journal of Reality Therapy*, 20(2), 35-39.
- Ryan, R. & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. Retrieved July 12, 2003 from PsycARTICLES database.
- Skeen, J. (2002). Choice theory: Virtue, ethics, and the sixth need. *International Journal of Reality Therapy*, 22(1), 14-19.
- Sullo, R. (1997). *Inspiring quality in your school*. West Haven, CT: National Education Association Publications.
- Triola, M. (2002). *Essentials of statistics*. Boston: Addison-Wesley.
- Vass, A. (2002). Teaching that works: Using the human givens in class. *Human Givens Journal*, 9(3), 34-42.
- Wubbolding, R. (2000). *Reality therapy for the 21st century*. Philadelphia: Taylor & Francis.

The author may be contacted at Byron Loyd, Ph.D., 3852 Betty Jean Ct., Lilburn, Ga 30047

Copyright of International Journal of Reality Therapy is the property of Northeastern University - Psychology Department. The copyright in an individual article may be maintained by the author in certain cases. Content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.