

## **EFFECTIVENESS OF CONTINGENCY MANAGEMENT AND SYSTEMATIC DESENSITIZATION IN THE MANAGEMENT OF TRUANCY IN SCHOOLS**

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**ABSTRACT:** *This study investigated the effectiveness of Contingency Management (CM) and Systematic Desensitization (SD) on adolescent truant behaviour participants consist of one hundred and forty four students (72 male and 72 female) from four co-educational schools in Edo State of Nigeria. ANOVA was used to test the effectiveness among the independent variables (CM and SD) on truancy and CM was identified the most effective in the treatment of truancy than SD ( $p < .05$ ). Based on this result the study advocated for the use of CM for the treatment of truancy.*

**KEYWORDS:** Contingency Management, Systematic Desensitization and Truancy.

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### **INTRODUCTION**

Truancy is the most commonly used term to describe school absenteeism and is usually seen as the deliberate absence from school on the part of the learner without the knowledge or consent of a parent. Truancy is the act of deliberately missing one or more classes. It is also staying away from school.

Truancy is derived from the French word *truand* meaning beggar, parasite, lazy person, naughty child or rogue. Today, truancy is often used as an umbrella term for school absenteeism, phobia, and disaffection, skipping school, non-attendance or school refusal. Some authors distinguish truancy from other forms of absenteeism as any absence which is unexcused is done without the knowledge of the parent and is not due to anxiety or fear (Elburn 1983). On the other hand, the failure of the absentee to obtain permission to be absent from school is considered to be truancy in the definition proposed by Osarenren (1996) and Medahunsi (2001).

Students indulge in different types of truancy such as blanket, post-registration, parental - condoned and psychological absence. Blanket truancy exists when the child fails to attend school and lacks authorization for failing to do so, with or without the knowledge and/or consent of the parent or guardian. The post-registration truant does registration; truant does register at a particular lesson or lesson during the school day. In parental condoned truancy, some parents simple encourage students to perform home chores, help in family business and care for invalid or handicapped siblings while psychological absence occurs when a child physically attends school yet fails to participate in any meaningful way.

Truancy is the willingness to violate societal and school rules that is shown through hostility, stealing, aggression, rebellion and deviations (Mathye, 2004). In the opinion of the researcher,

truancy may lead to other antisocial behaviour such as stealing, lying, hooliganism, raping, drug use cheating in examination and the like.

Truancy is also demonstrated through drug use (to include cigarettes and alcohol use at a very early age), gang activity keenness to start physical fights, using weapons in physical fights, lying criminal behaviour such as stealing, breaking into houses, shop-lifting, vandalism, learning difficulties, low self-esteem and rebelliousness, the aggressive actions against people (including bullying and physical or sexual abuse). Jessor and Jessor (1997) observed that truant students are at risk of drug abuse, delinquency and dropping out of school.

This study also explored the literature for gender differences in adolescent's truant behaviour. Numerous students have identified gender to be one of the strong factors in the study of adolescent truant behaviour. For example Attwood and Croll (2006), Baker (2001), White (2001), and Bell (2001) observed that truancy is more pronounced among boys than girls.

Schulz (2001) and Maccoby (2002) explained that males have higher rates of truancy than females especially in serious violent and property crimes. Regarding gender differences in adolescent Olds and Feldman (2000) state that in every society females are expected to be compliant and nurturing while men are to be active, aggressive and competitive.

Adolescent family structure have also been identified as a factor that affect truant behaviour, Danesy and Okedirian (2002); Weiss (2000) and Shittu (2004) noted that truant behaviour is more prevalent among adolescent who are faced with economic hardship. Similarly, Evans (2000) and Barndard (2004) discovered that children from single parent home are more truant than children from intact home. Aderanti (2006) also stressed that delinquent behaviour (of which truancy is one) is a social problem that cannot be overlooked due to its negative effect on both the truant youth themselves and the society in general in that an unchecked truant child can encourage many more children to take to crime and in the end result to a battalion of young and dangerous criminals. Also truants can create problems and dissipate peace in school leading to loss of appropriate learning periods and properties. Truant adolescents may refuse to learn and eventually drop out of school thus causing shortage of qualified manpower required in the various sectors of our country economy (Aderanti 2006).

Since it is dangerous to ignore the negative consequence of truancy and growing maladaptive behaviour among adolescents various preventive and controlling measures have been employed by different people such as parents who may use different kinds of disciplinary measure such as beating, depriving the child of basic needs and some parents may scold or abuse to correct the truant children, teachers and school administrators also use methods like corporal punishment to deal with truant students which appear not have a lasting effect on them. In the researcher opinion when behavior is unwholesome it needs therapeutic programme to help remedy such behaviour. Psychologist in the recent past have risen to this societal challenges by carrying researches in order to find out ways of managing such behaviours. Their efforts have resulted in psychological theories.

The Nigeria government like most other countries of the world has established remand homes, approved schools rehabilitation centers and other correctional institutions to take care of adolescents with various forms of deviant behaviours. Counseling psychologists have also developed a variety of behavioural modification techniques to address different types of behaviour problems. These include shaping cognitive restructuring, contingency management and systematic desensitization (Egbochuku, 2008).

Wasserman and Miller (1998) opined that the approaches to the prevention of delinquency might be universal, selected or indicated. They also explained that the universal programs address an entire population of children such as those in the classroom, schools or neighborhoods and also select programs on the other hand, targeted high-risk children who may have already shown some anti-social behaviour while indicated programs are for those children who have been identified as showing clear signs of truancy or anti-social behaviour.

This study adopts the indicated approach (which is directed at already identified truant adolescents) to establish the effectiveness of contingency management and systematic desensitization on truancy reduction among students.

Contingency management as proposed by B.F. Skinner is based on the assumption that behaviour is learned and that abnormal behaviour is thought to be due to defective learning. To eliminate unwanted behaviour the client is expected to learn new behaviours. Contingency management is a behaviour modification technique in which the stimuli and reinforcers that control a given behaviour are manipulated to increase the likelihood of occurrence of the desired behaviour and the withholding of reinforcement or punishment of undesired behaviour as a means for treating problem behaviour. It uses the processes of reinforcement and punishment to affect behaviour change.

Contingency management techniques involved provision of incentives to individuals who provide objective evidence of having achieved a targeted element of behavioural change. The counselor arranged the environment such that target behaviour (for example school attendance) is readily detected, tangible reinforcers are provided when the target behaviour is demonstrated and incentives are withheld when the target behaviour does not occur (Balowo, 2004). Once behaviour has been targeted a protocol must be put in place to allow for objective verification of each and every occurrence of the behaviour. Perfect monitoring is appropriate to verify absenteeism while in compliance with treatment plan. Contingency reinforcement is most effective when delivered as soon as possible after the target behaviour has occurred.

Contingency management has been found to be very effective in the treatment of all forms of antisocial behaviour such as stealing (Obalowo, 2004), socially undesirable behaviour (Akinranti, 1984) rule breaking and drug use Higgin and Silverman, (1999). This study attempts to compare the effectiveness of contingency management with systematic desensitization.

Systematic desensitization is a procedure by which new behaviours are learned in response to stimuli that previously elicited other behaviours. Information giving, relaxation training, establishment of hierarchies and counter-conditioning procedures are include in the strategy.

Systematic desensitization involves three steps.

1. The first step is to teach the student relaxation techniques, typically with teaching the students to tighten and relax various groups of muscles. This should be practiced for 10 – 15 minutes every day to become comfortable with the technique.
2. Following this the students and therapist develop a fear hierarchy. In the hierarchy the student will develop a list of 15 – 20 items that become increasingly more fearful on a scale of 0 – 100.
3. The third and final step is to have the students imagine each of the items on the hierarchy in order from least fearful to most, while engaging in the relaxation technique taught by his or her therapist. Kearney and Silverman (2000) and Egbochuku (2012) revealed that systematic desensitization is effective in modifying deviant behaviour while acknowledging the fact that different studies had established the efficacy of contingency management (e.g. Obalowo, 2004, Adedirain, 2007, & Brook, 2001) at ameliorating some anti-social behaviour (e.g. bullying, stealing and truancy). Little efforts have been made to investigate the effectiveness of contingency management and systematic desensitization on truancy reduction among secondary school adolescent. The present study therefore looks into the effectiveness of contingency management and systematic desensitization on the reduction of adolescent truant behaviour.

### **Purpose of the Study**

Adolescent truancy behavior problem as a psychosocial problem has not received the due attention it deserves from counseling psychologists. There are a lot of gaps in understanding of this problem and how it can be experimentally managed. Many management skills have been made available by counseling psychologists derived from laboratory studies but their relative efficacy has not been established with respect to adolescent maladaptive behaviour management.

The main purpose of this study is to determine the effectiveness of contingency management and systematic desensitization on the reduction of truancy among secondary school adolescent.

The specific purpose is to assess the influence of family structure and gender on treatment of truancy among secondary school adolescent.

### **Significance of Study**

The result of the study formed the basis for a systematic treatment of truant behaviour among secondary school students. It indicated effective remedy that is useful to the adolescents who experience such problems. Also the findings of this study increased the methods of reducing truancy problems among youths or at least assist them in relating properly with their teachers and peers.

### **Research Hypothesis**

1. There is no significant difference in the effect of contingency management and systematic desensitization on adolescent truant behaviour reduction.
2. There is no significant gender difference in the effect of contingency management and systematic desensitization on adolescent truant behaviour reduction.
3. Family structure of adolescent will not interact significantly with the effectiveness of contingency management and systematic desensitization on truant behaviour reduction.

## **METHOD OF STUDY**

### **Design**

The study adopted a pre-test, post-test experimental control group design. The hypotheses were tested using a 2x3x3 factorial design. The various factors are treatments which exist at two levels (contingency management, systematic desensitization and control). Gender, which exist at two levels (male and female) and family structure which was observed at three levels (intact parent, single parent and foster home). The dependent variable was truancy.

The population comprised of all senior secondary school students in three local government areas of Edo State. One hundred and forty four students were selected through stratified random sampling technique from four co-educational secondary schools in Edo State. The same method was used to select thirty six (36) senior students into each of the two groups in the four schools after the pretest assessment. The sample size of the study therefore is 144 students. The instruments used for the study is students truancy behaviour scale in form of a 4 point likert scale of strongly agree to strongly disagree adapted from Gesinde (2004). Truancy behaviour scale, the scale is made up of twenty items which are indicative of a negative attitude towards school. Contingency management and systematic desensitization was employed for the treatment intervention in each of the four schools. The students were pretested two weeks before the experimental treatment was carried out and were all assigned to treatment group. The experimental participants were exposed to 12 treatment session spread over six weeks with an average of hour per session. The post treatment session was carried out week after the last treatment session. The data were analyzed using the independent t-test and ANOVA.

### **Procedure**

Study was carried out in three phases. In the first phase the students were randomly assigned to the treatment groups (CM, N = 36 and SD, N = 36) respectively. Students truancy behaviour scale (STBS) was administered to the students. At phase two each group went through 6 weeks (1 hour a week) of intensive training 30 minutes to discuss the previous assignments given, 15 minutes to summarize and give the next assignment.

Instructions and explanations on the task involved in each experimental group such as lectures discussion and assignments were given to all participants. Among other discussions/lectures given to participants under contingency management skill training (CMST) were the effect of self-esteem on behaviour and the importance of substituting negative self-statement with positive self-statements. Assignments include: giving examples of making positive statement in the place of negative one, e.g. I am wonderfully made. "I have to study hard to pass my exam".

The participants who received systematic desensitization skill training (SDST) were also instructed on overcoming bad habit. After each discussion section participants were train on muscles relaxation and breathing exercise to counter the anxiety or fear they have about school. Assignments were also given to all participants after each session. At phase three the treatments were evaluated by administering the instrument (STBS as post-test) on the students to determine the effectiveness of the two treatment package (CMST and SDST).

**The Control Group**

The control group had lectures on voter's education.

**RESULTS**

The results obtained in respect of the research hypotheses are presented below in the table. Inferences were also made immediately after each table hypothesis I.

There is no significant difference in the effect of contingency management and systematic desensitization on adolescent truant behaviour reduction.

**Table 1**

	<b>Sum of Squares</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
<b>Between Groups</b>	752.059	2	376.030	118.101	.000
<b>Within Groups</b>	448.941	141	3.184		
<b>Total</b>	1201.000	143			

The result in table 1 above revealed a significant effect of the treatment (contingency management and systematic desensitization) on truant behaviour reduction therefore the first hypothesis, which stated that there is no significant difference in the effect of contingency management and systematic desensitization on truant behaviour is rejected since a significant ( $F = 118.101$ ;  $p < 0.05$ ), exist in the effectiveness of the two treatment. The descriptive data on table 2 below shows the extent of the difference.

**Table 2**

Descriptive Statistic of Scores Of Subjects Under Contingency Management And Systematic Desensitization Treatment Groups.

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<b>Dependent Variable (1) Group (5) Group</b>	<b>Mean Difference (1-5)</b>	<b>Std Error</b>	<b>Sig</b>
<b>Contingency Management vs Systematic Desensitization</b>	1.8881*	.4177	.000
<b>Control</b>	5.32559*	.3650	.000
<b>Systematic Desensitization vs Contingency Management</b>	-1.8881*	.4177	.000
<b>Control</b>	3.4377*	.3618	.000
<b>Control vs Contingency Management</b>	-5.3259*	.3650	.000
<b>Systematic Desensitization</b>	-3.4377*	.3618	.000



The result revealed a significant difference between contingency management and systematic desensitization with a mean difference of 1.888 and significant at .000 and also a significant difference between contingency management and control with a mean different of 5.326, significant at .000. This means therefore, that contingency management is superior to both systematic desensitization and control in truancy management. It also shows a significant difference (for systematic desensitization) of 3.438 significant at .000 meaning systematic desensitization is also superior to control in truancy management.

### Hypothesis 3

Family structure of adolescent will not interact significantly with the effectiveness of contingency management and systematic desensitization on truant behaviour reduction.

**Table 3**

	<b>Sum of Squares</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
<b>Between Groups</b>	4.340	1	4.340	.161	.913
<b>Within Groups</b>	51744.819	142	364.400		
<b>Total</b>	51749.160	143			

Significant at .05 levels

The one way analysis of variance on table 3 shows an F ratio for the effect of sex to be .161 with  $df = (1,143)$ . This was not significant at  $p > .05$ . The null hypothesis stating no significant gender difference in the effect of contingency management and systematic desensitization on truant behaviour reduction was retained. It was concluded that there was no significant difference in treatment of males and females on the reduction of truancy. It means that the treatment is efficacious for both males and females.

### Hypothesis 3

Family structure of adolescent will not interact significant with the effectiveness of contingency management and systematic desensitization on truant behaviour.

**Table 4**

	<b>Sum of Squares</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
<b>Between Groups</b>	144.116	2	72.058	.197	.822
<b>Within Groups</b>	51605.044	141	365.993		
<b>Total</b>	51749.160	143			

In the one way Anova table 4.0 showing F-ratio for family structure was found to be .197 with  $DF = (2,143)$ . This was not significant at  $p > .05$ . This implies that there is no significant difference in treatment effect based on family structure, indicating that students from the different family structure gained after treatment. Thus the null hypotheses stating no difference were retained. It is concluded that there was no significant difference in treatment by family structure on truancy reduction. This implies that the difference in the treatment groups is the same across all the family structure.

## **DISCUSSION**

The result of the first hypothesis indicates that a significant difference exists in the effectiveness of the treatments on truant behaviour which is an indication that the two treatments (Contingency Management and Systematic Desensitization) are effective in the treatment of truant behaviour. The reason for this result could be as a result of their six weeks exposure to treatment. Since positive changes in behaviour especially truancy are facilitated by using behaviour techniques (Coon, 2000).

The effectiveness of contingency management in modifying truant behaviour as compared to that of systematic desensitization is not a surprise because contingency factor play an important and well documented role in truant behaviour since the way people learn has a controlling effect on their action (Garder, 2003) that is learning and unlearning will help the individual to create more adaptive behaviour. Many researchers confirm the effectiveness of contingency management in the treatment of all forms of antisocial behaviour including Obalowo (2004), Brook (2001) Dubar Spencer (1984) and Kearney (2000).

The outcome of the data analysis indicates that there is no interaction effect of gender on treatment on the student's truant behaviour. This is an indication that contingency management and systematic desensitization work effectively on both male and female.

No significant family structure difference on the effect of contingency management and systematic desensitization on student truant behaviour. This result is not surprising since the approaches to prevention of truancy are universal and these universal programmers address an entire population of children irrespective of family structure (Wasserman and Miller 1998). By this finding it is clear that the two behavioural therapies are effective in the management of truancy among students.

## **CONCLUSION AND RECOMMENDATION**

This study concluded that both contingency management and systematic desensitization therapy are both effective in the management of truancy among secondary school adolescent. However, contingency management was more efficacious. It was also concluded that there was no gender and family structure difference on treatment of truant behavior. In other words, both gender and family structure responded equally to treatment.

It is recommended that these two therapies should be adopted in the management of truancy among adolescent in secondary school. They both adopt a psychological approach that first identifies the underlying problems before equipping adolescents with appropriate skills. Thus, the skill acquired could be applied to different endeavours in life and this ensures their success in life.

The researcher also recommends the use of these two therapies in the management of behavior problem among adolescent.



## IMPLICATION OF THE FINDINGS

The findings of this study have some implications for all stakeholders in the training of truant children and adolescents. The study revealed that truancy could be treated by the two techniques (contingency management and systematic desensitization) used in this study irrespective of gender and family structure. The finding is also instructive to counselor, psychologist, teachers, school administrators and parents whose business among other things is behaviour modification that contingency management is best in the treatment of adolescent's truant behaviour irrespective of gender and family structure especially among adolescent. Social workers who reside with the delinquents in the correctional institutions could use any of these techniques alongside with any other corrective measures in the various Nigerian correctional institutions such as approved schools, remand homes and even in prison to help the truants. It is also an eye opener for individual adolescents who have formed a habit that needs to be discontinued and wishes to stop the behaviour that both treatments (CM and SD) could be better options.

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