Psych educational intervention for caregivers of institutionalized school age children

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Abstract: *The lack of proper training for caregivers and personnel inside Egyptian orphanages is cited as a key factor by both government officials and independent children's-rights activists so the aims of the current study are to; Assess knowledge, attitude, and practice of caregivers toward institutionalized school age children behavior. And train care giver on behavior modification strategies to improve their skills in dealing with children. The study was conducted at Institution of education for Boys (EL Mansoura –EL Glaast .West –district) and Institution of education for girls. (EL Mansoura –EL stad st. East –District). Quasi experimental design was followed.The subjects of this study include, All care givers (n=50) who have worked at the previously mentioned settings .An interview questionnaire sheet developed by the researchers after thorough review of literature it consists of four parts.Results show that the caregivers are composed of 32 supervisors (18males & 14 females) and 18 workers (4 males & 14 females). 43.8% of supervisors had less than 10 years' experience,while 33.3% of workers were divorced. Also There was a significant difference between total knowledge score of supervisors (T: 17.131, p <0.001) and total knowledge score of workers (T:11. 365 P<0.001)*

In conclusion:*There was significant improvement in knowledge, attitude, and practice of caregivers toward institutionalized school age children behaviorbetween pre –post intervention based on the current study the researchers recommend to replicate this study in other settings to improve skills of caregiver and in turn rear healthy children*

Keywords:*institution,psycho-education ,behavior modification*

I.   Introduction

Institutional rearing environments for young children tend to provide quite minimal social/emotional relationship experiences (e.g., St. Petersburg-USA Orphanage Research Team, 2005, 2008; Rosas & McCall, 2008), and perhaps as a partial consequence of this deprivation such children tend to be substantially underdeveloped and have higher rates of behavioral problems   (Gunnar, 2001; Johnson, 2000; MacLean, 2003; St. Petersburg-USA Orphanage Research Team, 2005, 2008).

Orphanage settings children receive minimal communication or from caregivers, and experience little responsiveness attention to their individual needs .A caregiver is the person who looks after infants and young children. If a child expects   caregivers to be uncaring, she or he may stop seeking assistance and comfort from caregivers. Institutionalization Breaks the mother-child bound that is needed for a child's healthy psychological development (Bibars, 2001; Fries and Pollak, 2004).

Institutionalized children who are with multiple caregivers display insecure attachments and indiscriminate friendliness. It is essential that the child welfare system provide institutionalized children with productive and nurturing care giving substitute families when their biological parents can not provide the safe and stability they need (Judge, 2004).

Most of children in institution are the outcome of illegal pregnancy that acts as a risk factor for developing an abnormal child. Children experience a great deal of stress and trauma when referred to an institution. This stress is shown in symptoms of confusion, anxiety, depression, impulsive behavior and behavioral disorder. Children who are frustrated, fearful, and depressed often fail to concentrate in class and therefore, perform badly (Holland and gorey 2004&Brendgen et al, 2002).

Children in orphanages are exposed to multi factor stresses. Therefore, continuous training should be provided to child care givers about early detection of   inappropriate behavior and how they change their children' behavior by using modification as a therapeutic method to change behavior disorder and provide opportunities for the child to acquire integrated responses. psych education is the most effective method to give consumers cognitive and emotional "power" over the condition (empowerment); accurate information to correct previous misinformation and prevent future errors; and the ability to distinguish, access, and utilize efficacious

and cost-effective care(Lukens& McFarlane 2004)Psychoeducation is often confused with psychotherapy (Friedberg & McClure, 2002). However, the main difference between the two is psychoeducation deals with the acquisition of information and/or skills while psychotherapy involves the actual application of information/skills to a person's specific life circumstances inside and outside of therapy.

In behavior modification theory, all behavior is defined as being externally controlled by aspects of the environment,Behavior modification become popular in the past three decades for three principle reasons. First people some times have problems that may not warrant an in depth discussion of early childhood, an exploration of unconscious motivations, a lengthy discussion about current feelings, or a resolution of inner conflicts. For examples of such problems are fears of heights, anxiety about public speaking. In these cases, behavior therapy may be more appropriate than psychodynmically based or humanistic therapies. Second, behavior therapy has become popular because less expensive solutions to everyday problems. Last, behavior therapy can be very effective. This type of modification is very focused on changing current behavior and on designing solutions to problems (Azarrad, 2001).

Psychological problems are not always obvious, many caregivers in charge of orphans are not able to identify them. However, even where the problem may have been identified, there is lack of knowledge of how to handle it appropriately *(*Sengendo and Nambi 1997).

Children who have been adopted or fostered are at high risk of experiencing interpersonal difficulties and placement breakdown may occur if these difficulties are not addressed through interventions.Therefore, continuous training should be provided to child caregivers about early detection of inappropriate behavior and how they change their children's behavior by using behavior modification as a therapeutic method to change behavior disorder and provide opportunities for the child to acquire integrated responses.

II.   Aim of the study

The aims of the current study are to;Assess knowledge, attitude, and practice of caregivers toward institutionalized school age children behavior. And train care giver on behavior modification strategies to improve their skills in dealing with children .

III.   Subject and methods

Setting:
The study was conducted at:
A- Institution of education for Boys (EL Mansoura –EL Glaast .West –district)   . parts.
B-Institution of education for girls. (EL Mansoura –EL stad st. East –District). .
<u>Research design</u>: Quasi experimental design was followed
Subjects: The subjects of this study include:

All care givers (n=50) who have worked at the previously mentioned settings.

Tools used for data collection.
 An interview questionnaire sheet developed by the researchers after thorough review of literature it consists of four parts :
   1-   An interview questionnaire to gather demographic data; age, gender, years of experience, marital status.
   2- A questionnaire to assess knowledge of caregivers about abnormal behaviors of children. It consists of 28 statements that are constructed as <u>multiple choice options</u> each participant choice only one answer. The questionnaire addresses knowledge such as types of behaviors, behavior modification, behavioral problems.Possible range of score is from 0 to 28. Total knowledge score: incorrect is less than 60 %, and correct equal or more than 60 %.
   3- An Observation checklist to assess attitude and practice of care givers toward children's behavior. It was designed by the researcher in Arabic language .The attitudes measured 20 items. Each item was constructed based on 3 point likert scale that ranges from Never, sometimes and always. The scale scores: Never less than one third of total score (less than 13.33%), sometimes from one third to two third of total score (from 13.33% to 26.66%), and Always more than two thirds of total score (more than 26.66%). Total score = the number of questions (20) multiplied by the highest score of each question (2) = 40.
   4-The practices measured 39 items for supervisors. Such as supervise children's food, encourage children to study, rewarding children for any positive activity ….etc .Each items was constructed on 3 point likert scale that range from never, sometimes, and always .The scale scores: Never less than one third of total score (less than 26%), sometimes from one third to two third of total score (from 26% to 52 %), and always more than two third total score (more than 52 %). Total score = the number of questions (39) multiplied by the highest score of each question (2) .The practices measured 23 items for workers. Such as keeping the place clean, helping children during bathing, rewarding good behavior … etc .Each item was constructed on 3 point

likert scale that ranges from never, sometimes, and always. The scale scores: Never less than one third of total score (less than 15.33%), sometimes from one third to two third of total score (from 15.33 % to 30.66%), and always more than two third total score (more than 30.66 %). Total score = the number of questions (23) multiplied by the highest score of each question (2).

4- Develop behavior intervention for children's care givers to improve children's behavior disorders. It was designed according to relevant literatures review .

Ethical consideration

The researchers submitted official letter to social Affairs in Mansoura in order to obtain their acceptance to collect data from the Institution of education for Boys and Institution of education for girls. Furthermore, approval was obtained from the identified settings to collect the necessary data.

The pilot study was carried out on 5 caregivers fulfilling the selected criteria and was included later in the study sample. The purpose of the pilot study was to test the clarity of the different items of the tools when obtaining the required information .Results of the pilot study helped to make such modification of the tools. The tools then were revised, redesigned, and rewritten with the objectives of improving its accuracy and consistency, and the final forms of the tools were reviewed by 3 professor of psychiatric nursing . The collection of data started at 7/ 6 / 2014 and end at 31/8/2014.

Program development phase

Based on the literature review, the educational training was developed by the researchers.

Implementation phase; the researchers met the caregivers (supervisors and workers) throughout two shifts at supervisor's office. They were sat down in a circle. At the beginning, in the first session the researchers first introduced their self to them and gave them a brief idea about the study and its aim.

Any clarification requested by the care givers was done by the researchers. The subject content has been sequenced through the 14 sessions to be covered in 12 hours (2 hours theoretical and 10 hours practical . In addition to two sessions for pre and post test .The number of sessions in each week was four sessions. The number of each group varied according to shifts range from 5 to 15 persons. The basic content was the same for groups.

The duration of time in each session ranged from 30 minutes to 60 minutes including periods of discussion and break .Session started at 10 AM for morning shifts, afternoon shifts started at 3 PM. The care givers (supervisors and workers) who were working night shifts met with researchers during their morning and afternoon shifts. The researchers started each session with a summary feedback about the previous sessions; simple words and Arabic language were used to suit the caregiver's level of understanding. During the 14 session the caregivers (supervisors and workers) discussed their ideas and suggestions towards dealing with children's problems through group discussion and discussing real situations .After that the researchers explained the intervention for children behavior problems which is developed by the researchers after thoroughly reviewing literature.

After finishing these sessions. The researchers repeated the same sessions in the Institution of Education for girls. Methods of teaching included modified lectures, group discussion, discussing real situations, demonstration, and redemonstration. All members received the same handouts.

Evaluation:

Pre-post educational training Evaluation was done, in order to identify differences, similarities, and areas of improvement.

Statistical analysis:

The collected data was organized, tabulated, and statistically analyzed using SPSS soft ware statistical computer package version 12. For quantitative data, the range, mean and standard deviation were calculated. The difference between two means was statistically analyzed using the students (t) test. Wilcoxon singed rank test was performed to test mean values of before and after treatment when the observations were not found to follow the normal distribution and so t test was not the appropriate test for comparison between means. For comparison between more than two means, the F value of analysis of variance (ANOVA) was calculated. For qualitative data the number and percent distribution was calculated. Pearson's correlation coefficient (r) was calculated to test the association between two variables. +Significance was adopted at $p < 0.05$ for interpretation of results of tests of significance.

IV.   Results

Table (1): Sociodemographic data of care givers (supervisors and Workers)

Characters	Supervisors		Workers	
	N	%	N	%
Age in years:				
<30	13	40.6%	0	0.0
30-50	19	59.4%	18	100%
Mean	33.56		6.31	
S.D.	9.34		5.81	
Sex:				
Males	18	56.3	4	22.2
Females	14	43.7	14	77.8
Experience in years:				
0-<5	14	43.8	1	5.6
5-	10	31.3	5	27.8
10-	4	12.5	4	22.2
15+	4	12.5%	8	44.4%
Mean	40.78		13.44	
S.D.	7.23		5.44	
Marital status:				
Single	12	37.5	3	16.7
Married	20	62.5	6	33.3
Divorced	0	0.0	6	33.3
Widow	0	0.0	3	16.7

Table (1) shows the distribution of caregivers according to their sociodemographic characteristics. The caregivers are composed of 32 supervisors (18males& 14females) and 18 workers (4 males&14 females).Regarding to supervisors' age more than half of the supervisors (59.45%) were in the age group of 30-50 years, while all workers were in age 30-50 years. Concerning the years of experiences of care givers, 43.8% of supervisors had less than 10 years ,while 33.3% of workers were divorced.

Table (2): Number and Percentage distribution of supervisor's knowledge related to behavior modification of institutionalized school age children before and after intervention

Items of knowledge	Before intervention		After intervention		Z	P
	Correct		Correct			
	N	%	N	%		
Definition of behavior modification	11	34.4	32	100.0	4.583	0.001*
Rationale for use of enforcement, punishment and ignoring	24	75.0	32	100.0	2.828	0.005*
Definition of accustom style	10	31.2	32	100.0	4.690	0.001*
Definition of response costs	5	15.6	32	100.0	5.196	0.001*
Total score	2	6.2	32	100.0	4.983	0.001*

Table (2): illustrates that there is a significant difference in relation to supervisor's knowledge related to behavior modification .It was observed that the correct answer about behavior modification mentioned by 15.6% to 75.0% of supervisors before intervention, and 100% of supervisors after intervention. there was a statistically highly significant difference.

Table (3): Number and Percentage distribution of supervisor's knowledge related to behavioral problems of school age Children before and after intervention

Items of knowledge	Before intervention		After intervention		Z	P
	Correct		Correct			
	N	%	N	%		
Identification of behavioral disorders during school age	14	43.8	29	90.6	3.873	0.001*
Manifestation of over movement among children	11	34.4	25	78.1	3.742	0.001*
Causes of aggression among children	23	71.9	31	96.9	2.828	0.005*
Manifestations of aggression among children	17	53.1	24	71.9	1.897	0.058
Fears of children aging 8-9 years	7	21.9	23	68.8	3.873	0.001*
Manifestation of anxiety among children	13	40.6	24	71.9	2.887	0.004*
Causes of anxiety among children	15	46.9	31	96.9	4.000	0.001*
Causes of depression among children	21	65.6	30	93.8	3.000	0.003*
Manifestations of depression among children	7	21.9	24	71.9	4.000	0.001*
Definition of secondary nocturnal enuresis	7	21.9	32	96.9	4.899	0.001*
Causes of nocturnal Enuresis	15	46.9	32	100.0	4.123	0.001*
Reasons for telling lies among children	17	53.1	31	96.7	3.742	0.001*
Causes of stealing among children	16	50.0	31	96.7	3.873	0.001*
Total score	15	46.9	31	96.7	4.946	0.001*

Table (3) is concerning supervisors' knowledge related to behavioral problems of institutionalized school age before and after intervention .It was found that the knowledge about definition of secondary nocturnal enuresis ,manifestations of depression, and fears of children aging 8-9 years mentioned by 21.9% of supervisor's before the intervention,96.9%,71.9% and 68.8% after the intervention, respectively. This difference was statistically highly significant .

Table (4): Number and Percentage distribution of supervisor's knowledge related to dealing with behavior problems of school age children before and after intervention

Items of knowledge	Before intervention		After intervention		Z	P
	correct		Correct			
	N	%	N	%		
Requirements to be fulfilled when dealing with behavioral problems of children	22	68.7	32	100.0	3.162	0.002*
Best ways of dealing with a child with excessive movements	6	18.7	26	81.2	4.264	0.001*
Dealing with fighting children	28	87.5	32	100.0	1.342	0.180
Best methods of dealing with aggressive child	7	21.9	27	84.4	4.472	0.001*
Dealing with a child's fears of darkness	20	62.5	29	90.6	2.714	0.007*
Dealing with a child's fears of going to school	4	12.5	28	87.5	4.899	0.001*
Total score	**8**	**25.0**	**30**	**93.8**	**4.907**	**0.001***

*Significant

Table (4) addresses supervisor's knowledge of dealing with behavioral problems of school age children before and afterintervention. It was observed that the knowledge about dealing with a child's fears of going to school, best methods of dealing withaggressive child, and best ways of dealing with a child with excessive movement were mentioned by 12.5%,21.9%,and 18.7% of supervisors before the intervention,87.5%,84.4%,and 81.2% after the intervention, respectively. This difference was statistically highly significant.It shows that knowledge was improved after the intervention with highest percent (100%) for requirements to be fulfilled when dealing with behavioral problems of children,anddealingwith fighting children**.**

Table (5): Number and Percentage distribution of worker's knowledge towards behavior modification of institutionalized school age children before and after intervention

Items of knowledge	Before intervention Correct		After intervention Correct		Z	P
	N	%	N	%		
Definition of behavior modification	1	5.6	14	77.8	3.606	0.001*
Rationale for use of enforcement, punishment and ignoring	5	27.8	16	88.9	3.051	0.002*
Definition of accustom style	8	44.4	11	61.1	1.000	0.317
Definition of response costs	6	33.3	14	77.8	2.828	0.005*
Total score	2	11.1	14	77.8	3.436	0.001*

Table (5) clarifies that most of workers had inadequate knowledge about behavior modification .However ,after the intervention, rationale for the use of enforcement ,punishment and ignoring improved from 27.8 % to 88.9% .The difference between before and after the intervention was statistically highly significant (p<0.001).

Table (6): Number and Percentage distribution of worker's knowledge towards behavior problems of school age children before and after intervention

Items of knowledge	Before intervention		After intervention		Z	P
	Correct		Correct			
	N	%	N	%		
Identification of behavioral disorders during school age	4	22.2	9	50.0	2.236	0.025*
Manifestation of over movement among children	3	16.7	8	44.4	1.667	0.096
Causes of aggression among children	8	44.4	16	88.9	2.828	0.005*
Manifestations of aggression among children	2	11.1	5	27.8	1.732	0.083
Fears of children aging 8-9 years	11	61.1	12	66.7	0.447	0.655
Manifestation of anxiety among children	2	11.1	6	33.3	2.000	0.046*
Causes of anxiety among children	4	22.2	7	38.9	1.732	0.083
Causes of depression among children	7	38.9	11	61.1	2.000	0.046*
Manifestations of depression among children	2	11.1	3	16.7	0.577	0.564
Definition of secondary nocturnal enuresis	4	22.2	14	77.8	2.673	0.008*
Causes of nocturnal Enuresis	5	27.8	17	94.4	3.464	0.001*
Reasons for telling lies among children	5	27.8	8	44.4	1.732	0.083
Causes of stealing among children	5	27.8	9	50.0	2.000	0.046*
Total score	4	22.2	9	50.0	3.528	0.001*

*Significant

Table (6) is concerning worker's knowledge related to behavior problems of institutionalized school age children before and after intervention .It was found that the knowledge about causes of aggression among children, and causes of nocturnal enuresis mentioned by 44.4%, and 27.8% of workers before the intervention 88.9%, and 94.4% after intervention, respectively. The difference between before and after intervention was statistically highly significant.

Table (7) is regarding worker's knowledge of dealing with behavioral problems of school age children before and after intervention. It was found that best methods of dealing with aggressive child, and dealing with a child's fears of darkness were not known by all workers compared to 6 1.1% ,and 38.9% after the intervention with highest percent (100%) for dealing with fighting children .Generally, the difference between the before and after intervention was highly Significant (p<0.01).

Table (8): Shows number and percentage of supervisors in relations to their positive attitude towards institutionalized school age children .Table 10 illustrates that there is a significant difference in relation to supervisor's positive attitude toward institutionalized school age children in the items should marry non institutionalized persons in the future, and a picked-up child is orphan as mentioned by 34.4%, 68.8% before intervention, 53.1%, 90.6% after intervention.

Table (9) shows number and percentage of supervisors in relation to their negative attitude towards institutionalized school age children .Table 11 showed that there is significant difference in relation to supervisor's negative attitude toward institutionalized school age children. It was found positive change in supervisors attitude in relation to institutionalized .The items, school age children ,children should be treated as abnormal ,and mercy encourage disobedience mentioned by 40.6%,21.9% before intervention,21.9%,6.3 % after intervention respectively.

Table 10: presents number and percentage distribution of workers positive attitude toward institutionalized school age children after and before intervention. There were slight improvements in workers attitude. These improvements were found to be statistically significant. It was found that 66.7% of workers had positive attitude score before intervention and 72.2% had positive attitude score after intervention.

Table (11): Presents number and percentage distribution of workers negative attitude toward institutionalized school age children after and before intervention. There was a slight improvement in workers attitude. These improvements were found to be statistically significant. None of them mentioned that there is a big difference in dealing with an orphan and illegitimate child after intervention compared to 44.4% before intervention .Also it was found that 5.6% of workers mentioned that mercy encourage disobedience after intervention compared to 66.7% before intervention.

Table 12: Shows supervisor's practices related to institutionalized school age children .This table reveals that there was a significant difference before and after intervention , where always 81.2% of supervisors were using rewarding positive behavior of children ,rewarding and encouraging telling the truth , rewarding children for positive activity and citing this in note book after intervention .Concerning encouraging children to go to school ,immediately rewarding accepted behavior, and prevent pocket money in case of faulty behavior by children, it was found that always none of supervisors do that before the intervention compared to 68.7%, 71.8%, and 75.0% after intervention, respectively. In regarding to avoiding negative comments, this table shows improvement of supervisors' practice where 68.7% of them do always avoid negative comments after the intervention

Table (13): in relation to workers practices towards institutionalized school age children before and after intervention, this table reveals that always 72.2% of workers were asking children to sweep or clean before intervention compared to 44.4% after intervention. Regarding comparing children to each other, it was found always 5.6 of them do that after intervention .Regarding "using disgracing words, blaming children, it was found that 38.9% of workers always do that before intervention compared to 11.1%, 5.6% after intervention respectively. These differences were statistically significant.

   Table (14): illustrates that range of knowledge score for supervisors was more (15-28) than range of knowledge score for workers (11- 26) after intervention. There was a significant difference between total knowledge score of supervisors (T: 17.131, p <0.001) and total knowledge score of workers (T:11. 365 P<0.001)

Table (7): Number and Percentage distribution of worker's knowledge related to dealing with behavior problems of of school age children before and after intervention

Items of knowledge	*Before intervention*		*After intervention*		*Z*	*P*
	Correct		*Correct*			
	N	*%*	*N*	*%*		
Requirements to be fulfilled when dealing with behavioral problems of children	8	44.4	9	50.0	0.447	0.655
Best ways of dealing with a child with excessive movements	1	5.6	8	44.4	2.333	0.020*
Dealing with fighting children	12	66.7	18	100.0	2.449	0.014*
Best methods of dealing with aggressive child	0	0.0	11	61.1	3.317	0.001*
Dealing with a child's fears of darkness	8	44.4	8	44.4	0.000	1.000
Dealing with a child's fears of going to school	0	0.0	7	38.9	2.646	0.008*
Total score	**0**	**0.0**	**9**	**50.0**	**3.238**	**0.001***

*Significant

Table (8): **Number and Percentage distribution of supervisors in relation to their positive attitude towards institutionalized school age children before and after intervention**

Items of positive attitude	Before intervention						After intervention						Z	P
	Never		Some-times		Always		Never		Some-times		Always			
	N	%	N	%	N	%	N	%	N	%	N	%		
Feeling proud of children when accompany them out of institution	5	15.6	7	21.9	20	62.5	4	12.5	6	18.8	22	68.7	1.732	0.083
Like exchanging kisses with children	13	40.6	4	12.5	15	46.9	12	37.5	3	9.1	17	53.1	1.732	0.083
Like rewarding children's positive behavior	1	3.1	3	9.4	28	87.5	1	3.1	1	3.1	30	93.8	1.414	0.157
Like children to visit and play with my children	8	25.0	9	28.1	15	46.9	7	21.9	8	25.0	17	53.1	1.732	0.083
Institutionalized children should marry non institutionalized persons in the future	10	31.2	11	34.4	11	34.4	5	15.6	10	31.3	17	53.1	2.428	0.015*
Feeling anxious about their future	13	40.6	7	21.9	12	37.5	13	40.6	6	18.8	13	40.6	0.302	0.763
Like to sit with them during free time	1	3.1	6	18.8	25	78.1	1	3.1	5	15.6	26	81.3	0.577	0.564
Keen to supervise their school performance	2	6.3	3	9.4	27	84.3	1	3.1	3	9.4	28	87.5	1.414	0.157
A picked-up child is an orphan	9	28.1	1	3.1	22	68.8	3	9.4	0	0.0	29	90.6	2.530	0.011*
Total score	1	3.1	14	43.8	17	53.1	0	0.0	8	25.0	24	75.0	3.393	0.001*

*Significant

Table (9): **Number and Percentage distribution of supervisors in relation to their negative attitude towards institutionalized school age children before and after intervention**

Items of negative attitude	Before intervention						After intervention						Z	P
	Always		Some-times		Never		Always		Some-times		Never			
	n	%	n	%	N	%	n	%	N	%	n	%		
Feeling lack of emotion towards children	20	62.4	6	18.8	6	18.8	19	59.4	5	15.6	8	25.0	1.342	0.180
Institutionalized children are the worst	1	3.1	11	34.4	20	62.5	0	0.0	7	21.9	25	78.1	2.449	0.014*
Punishment is the best way to deal with them	1	3.1	9	28.1	22	68.8	0	0.0	3	9.4	29	90.6	2.530	0.011*
There is a big difference in dealing with an orphan and illegitimate child	5	15.6	1	3.1	26	81.3	1	3.1	1	3.1	30	93.8	2.000	0.046*
Children should be treated as abnormal	13	40.6	1	3.1	18	56.3	7	21.9	1	3.1	24	75.0	2.449	0.014*
Mercy encourage disobedience	7	21.9	13	40.6	12	37.5	2	6.3	10	31.3	20	62.4	3.127	0.002*
Adultery-resulting children are of no benefit	3	9.4	7	21.9	22	68.7	1	3.1	6	18.8	25	78.1	2.236	0.025*
Not accepting marriage of one of my children to one of institutionalized children	25	78.1	5	15.6	2	6.3	25	78.1	5	15.6	2	6.3	0.000	1.000
A picked-up child is a synonym of adultery and when grown up will be a source of evil	1	3.1	10	31.3	21	65.6	0	0.0	6	18.8	26	81.2	2.449	0.014*
It is a good chance to work in another place	15	46.9	6	18.8	11	34.3	14	43.8	7	21.9	11	34.3	1.000	0.317
Disgrace the child when arouses one's anger	28	87.5	4	12.5	0	0.0	26	81.2	4	12.5	2	6.3	2.000	0.046*
Total score	1	3.1	15	46.9	16	50.0	0	0.0	9	28.1	23	71.9	3.505	0.001*

*Significant

Table (10): Number and Percentage distribution of workers in relation to their positive attitude towards institutionalized school age children before and after intervention

Items of positive attitude	Before intervention						After intervention						Z	P
	Never		Some-times		Always		Never		Some-times		Always			
	n	%	N	%	N	%	n	%	n	%	n	%		
Feeling proud of children when accompany them out of institution	0	0.0	2	11.1	16	88.9	0	0.0	2	11.1	16	88.9	0.000	1.000
Like exchanging kisses with children	6	33.3	1	5.6	11	61.1	5	27.8	1	5.6	12	66.7	1.414	0.157
Like rewarding children's positive behavior	0	0.0	0	0.0	18	100.0	0	0.0	0	0.0	18	100.0	0.000	1.000
Like children to visit and play with my children	5	27.8	2	11.1	11	61.1	5	27.8	2	11.1	11	61.1	0.000	1.000
Institutionalized children should marry non institutionalized persons in the future	1	5.6	3	16.7	14	77.8	1	5.6	2	11.1	15	83.3	1.000	0.317
Feeling anxious about their future	8	44.4	0	0.0	10	55.6	6	33.3	3	16.7	9	50.0	0.577	0.564
Like to sit with them during free time	0	0.0	5	27.8	13	72.2	0	0.0	4	22.2	14	77.8	1.000	0.317
Keen to supervise their school performance	11	61.1	0	0.0	7	38.9	8	44.4	0	0.0	10	55.6	1.732	0.083
A picked-up child is an orphan	7	38.9	0	0.0	11	61.1	4	22.2	0	0.0	14	77.8	1.732	0.083
Total score	1	5.6	5	27.7	12	66.7	0	0.0	5	27.8	13	72.2	2.754	0.002*

*Significant

Table (11): **Number and Percentage distribution of workers in relation to their negative attitude towards institutionalized school age children before and after intervention**

Items of negative attitude	Before intervention						After intervention						Z	P
	Always		Some-times		Never		Always		Some-times		Never			
	n	%	n	%	n	%	n	%	n	%	n	%		
feeling lack of emotion towards children	7	38.9	4	22.2	7	38.9	4	22.2	7	38.9	7	38.9	1.732	0.083
Institutionalized children are the worst	2	11.1	6	33.3	10	55.6	1	5.6	3	16.7	14	77.8	1.667	0.096
Punishment is the best way to deal with them	4	22.2	4	22.2	10	55.6	0	0.0	2	11.1	16	88.9	2.640	0.008*
There is a big difference in dealing with an orphan and illegitimate child	8	44.4	0	0.0	10	55.6	0	0.0	0	0.0	18	100.0	2.828	0.005*
Children should be treated as abnormal	9	50.0	0	0.0	9	50.0	4	22.2	0	0.0	14	77.8	2.236	0.025*
Mercy encourage disobedience	12	66.7	3	16.7	3	16.7	1	5.6	7	38.9	10	55.6	3.448	0.001*
Adultery children are of no benefit	4	22.2	10	55.6	4	22.2	0	0.0	11	61.1	7	38.9	2.646	0.008*
Not accepting marriage of one of my children to one of institutionalized children	4	22.2	7	38.9	7	38.9	4	22.2	7	38.9	7	38.9	0.000	1.000
A picked-up child is a synonym of adultery and when grown up will be a source of evil	0	0.0	3	16.7	15	83.3	0	0.0	3	16.7	15	83.3	0.000	1.000
It is a good chance to work in another place	5	27.8	0	0.0	13	72.2	4	22.2	0	0.0	14	77.8	1.000	0.317
Disgrace the child when arouses one's anger	15	83.3	2	11.1	1	5.6	16	88.9	2	11.1	0	0.0	1.414	0.157
Total score	**3**	**16.7**	**10**	**55.6**	**5**	**27.7**	**0**	**0.0**	**5**	**27.7**	**13**	**72.2**	**3.473**	**0.001***

*Significant

Table (12): Percent distribution of supervisors in relation to their practice towards institutionalized children before and after intervention

Items of practice	Before intervention						After intervention						Z	P
	Never		Some-times		Always		Never		Some-times		Always			
	n	%	N	%	N	%	n	%	n	%	n	%		
Supervise children's food	4	12.5	13	40.6	15	46.9	2	6.3	13	40.6	17	53.1	1.633	0.102
Ensure all children have enough food	5	15.6	13	40.6	14	43.8	2	6.2	14	43.8	16	50.0	2.236	0.025*
Ensure daily cleanliness of children	5	15.6	13	40.6	14	43.8	2	6.2	14	43.8	16	50.0	2.236	0.025*
Satisfy basic children's necessities	8	25.0	10	31.2	14	43.8	3	9.4	14	43.8	15	46.8	2.449	0.014*
Encourage children to study	14	43.8	6	18.8	12	37.4	2	6.3	18	56.3	12	37.4	3.464	0.001*
Ensure quite environment for study	22	68.8	8	25.0	2	6.2	20	62.5	6	18.8	6	18.7	2.449	0.014*
Divide homework into small units and supervise performance	32	100.0	0	0.0	0	0.0	6	18.8	11	34.4	15	46.8	4.604	0.001*
Remind children of finishing their homework	24	75.0	6	18.8	2	6.2	4	12.5	10	31.3	18	56.2	4.617	0.001*
Let children play without doing their homework	0	0.0	8	25.0	24	75.0	13	40.6	10	31.3	9	28.1	3.903	0.001*
Encourage children to go to school	22	68.8	10	31.2	0	0.0	4	12.5	6	18.8	22	68.7	4.774	0.001*
Visit children at their schools	11	34.4	11	34.4	10	31.2	2	6.3	8	25.0	22	68.7	3.586	0.001*
Praising children's good behavior when returning from school	31	96.9	1	3.1	0	0.0	4	12.5	11	34.4	17	53.1	4.774	0.001*

Table (13): Percent distribution of workers in relation to their practice towards institutionalized children before and after intervention

Items of practice	Before intervention						After intervention						Z	P
	Never		Some-times		Always		Never		Some-times		Always			
	n	%	n	%	n	%	n	%	N	%	n	%		
Keeping the place clean	0	0.0	6	33.3	11	61.1	0	0.0	6	33.3	11	61.1	0.000	1.000
Cooking and preparing food	0	0.0	0	0.0	4	22.2	0	0.0	0	0.0	4	22.2	0.000	1.000
Giving children enough quantities of food	0	0.0	1	5.6	3	16.7	0	0.0	1	5.6	3	16.7	3.162	0.002*
Helping children during bathing	0	0.0	1	5.6	1	5.6	0	0.0	1	5.6	1	5.6	0.000	1.000
Helping in changing clothes	0	0.0	1	5.6	1	5.6	0	0.0	1	5.6	1	5.6	0.000	1.000
Helping in cutting nails	2	11.1	0	0.0	0	0.0	2	11.1	0	0.0	0	0.0	0.000	1.000
Helping in combing hair	2	11.1	0	0.0	0	0.0	2	11.1	0	0.0	0	0.0	0.000	1.000
Changing bed linen	0	0.0	3	16.7	4	22.2	0	0.0	3	16.7	4	22.2	0.000	1.000
Reporting cases of micturition on bed	0	0.0	3	16.7	4	22.2	0	0.0	3	16.7	4	22.2	0.000	1.000
Punishing children by hitting	3	16.7	9	50.0	6	33.3	8	44.4	9	50.0	1	5.6	3.162	0.002*
Using disgracing words	3	16.7	8	44.4	7	38.9	7	38.9	9	50.0	2	11.1	2.714	0.007*
Blaming children	2	11.1	9	50.0	7	38.9	4	22.2	13	72.2	1	5.6	3.000	0.003*
Asking children to sweep or clean	2	11.1	3	16.7	13	72.2	3	16.7	7	38.9	8	44.4	2.121	0.034*

N.B: some tasks were not of required functions for some care givers

Table (14): Comparison between total knowledge score of supervisors and workers about institutionalized school age children before and after intervention

Total knowledge score	Supervisors				Workers			
	Before		After		Before		After	
	N	%	N	%	N	%	N	%
Wrong	8	25.0%	0	0.0%	13	72.2%	0	0.0%
Incomplete	20	62.5%	2	6.3%	5	27.8%	14	77.8%
Complete	4	12.5%	30	93.7%	0	0.0%	4	22.2%
Range	2-23		15-28		1-15		11-26	
Mean	12.31		23.13		7.00		17.44	
S.D.	5.11		3.14		3.68		4.22	
T	17.131				11.365			
P	0.001*				0.001*			

*Significant

V. Discussion

Institutional care is often examined through the problematic psychosocial functioning of children. Many studies in the west see psychological and sociocultural pathologies as the scourge of child institutionalization (Gibbons.2005).

Children in orphanages are exposed to multi factors stresses, therefore, they are Considered as high-risk group showing psychological disorders in adolescence. (Hodges and Tizard 1989). They found that the effects of institutionalization on behavioral problems of children are evident and maintained through adolescence. Previous studies have mentioned that an institutional upbringing is associated with increased rates of emotional disturbance in childhood. Egypt has seen an increase in the number of orphans in the last 10 years. Egypt has one million orphans. It should be noted that orphan statistics in Egypt include single mother families (Bibars, 2001).

In regards to care givers (supervisors, and workers) characteristics, The finding reveled that more than half of supervisors reported being married. They change over shifts. As a result institutionalized children have multiple supervisors. Institutionalized children who are with multiple care givers display insecure attachments and indiscriminate friendliness (while one third of workers were divorced. This means, they have certain stressors affect workers' abilities to improve children's behavior and development. The children who live in the orphanage react to the emotional state and psychological characteristics of the caregivers. (Mamedrahimov. 2004).

The study showed that the levels of knowledge of care givers (supervisors and workers) were inadequate in pre-intervention, while after intervention, there was improvement with statistical significant difference in-between.

The study showed that the levels of knowledge of care givers (supervisors, and workers) related behavior, behavioral problems of institutionalized children, and behavior modification are inadequate in pre-intervention, while after intervention, there was improvement with statistical significant difference in-between. It is also well known that care giver knowledge about child normal and abnormal behavior, and behavior modification, affect how care givers behave with children. Educating care givers about psychological and behavioral problems of institutionalized children must be essential cornerstone of the institution process. In institution, there is an obvious lack of knowledge of care givers in identifying behavioral problems. (Hardman, 2004) reflected on her work as a consultant on behavior management in two Romania orphanages. Hardman suggested some managerial strategies to decrease behavior problems of orphans .These include ensuring a cohesive system where communication channels are opened, the availability of policies and procedures, encouraging caregivers to be involved in the decision making, maintaining a system of keeping the records, the availability of job description for caregivers, continuous Training of care givers, continuous teaching of constructive behaviors to care givers. In this study range of knowledge score for supervisors more than range of knowledge scores for workers before and after. This may be due to that as level of education increases the person becomes more knowledgeable.

Regarding care givers (supervisors and workers) attitude towards institutionalized children. There was improvement in care givers attitude. These improvements were found to be statistically significant. Half of supervisors mentioned that institutionalized children should marry non institutionalized persons in the future after intervention. While in the table (12) more than two thirds of supervisors not accepting marriage of one of their children to one of institutionalized children before and after intervention. People don't want their kids to marry kids like this. They know that 90 per cent or something like that, are found on the street, which means they are probably bastards. They don't know how they have been brought up. All orphanage personnel spoke of

the stigmatization of orphans in society. Babies are often found in the streets or mosque doorstep and taken to a police station .from there, they come under the umbrella of the Ministry of social affairs, which then names them and gives them a birth certificate. Because of the social stigma attached to orphans, it is rare for a child to be adopted. Families say that they do not know the father or mother of the child (Gibbons.2005).

Female orphans are stigmatized because they are seen as carrying the potential for demonstrating the loose morals. In contrast. The society honours the orphan 'like a child of God 'and under religious and official sanction, favours giving such children a helping hand .At the same time, orphans struggle against age–old prejudices ,in a place where such terminology as laqeet (bastard)remains active in street ,school and family lexicon. Orphans, who aspire to enhance their Educational trajectory, face prejudice and outright discrimination (Wolff, and Gebremeskel, F 1998).About two thirds of workers exhibited positive attitude before and more than two thirds after intervention table (13) .Non of workers mentioned that ''there is a big difference in dealing with an orphan and illegitimate child after intervention '' table (14).

Concerning the level of practice of caregivers The results of the current study revealed that (supervisors and workers) toward institutionalized children inadequate before intervention, while, and after intervention, there was improvement with significant difference in-between. In table 15 after interventions the majority of supervisors were using rewarding and citing this in a note book. The behavior is strengthened when the rewarding occurs only if the behavior occurs. Reinforcement is making the behavior more likely to occur in the future, by presenting a positive consequence immediately following the behavior (Merrell. 2001). One behavior modification technique widely used with children is positive reinforcement, which encourages certain behaviors through a system of rewards.

Based on behavior modification principle, rewarding (chips, token, money, tickets; etc is sometimes used in schools and institutions to encourage desired behavior. This positive reinforcement technique has been used to treat a wide variety of disorders in children, ranging from minor adjustment or developmental problems to autism(Sokolova, 2005). Use positive reinforcement has been shown to be effective intervention for depression, anxiety, phobic, and aggression (Azerrad.2001). **Black, 2003** mentioned guideline for helping and protecting aggressive kids from falling victims to extreme aggression .When teachers deal with students vent their anger, they should remain calm. Explosive children should be helped to calm down to become aware of the situation that initiated the aggressive reaction. Giving kids token rewards if they reduce undesirable behavior. When a child performs a desirable behavior, either a new one or an improved one (e.g., with more skill or in a new place), a care giver does not notice the desirable behavior and /or does not provide adequate reinforcement. Consequently, the child's desirable behaviors weaken or fail to increase .This further decreases the child's opportunities for participation and reinforcement behavior (Kozloff, 1997).

None of supervisors encourage children to go to school before intervention table (13). This may be due to institutionalized children had poor level of education in the public schools. So some of supervisors prefer that children acquire handicraft. But after intervention, they wish to augment this education with extra lessons for children at institution in the afternoon. Teachers were coming from outside to give the children lessons. This study showed improvement of supervisors practice where more than two thirds of them reported always encourage children to go to school after intervention. Regarding '"avoiding negative comments'' the results of this study showed improvement of supervisors practice where more than two thirds of them always reported avoiding   negative comments after intervention.

In this study after intervention less than one third 0f workers were punishing children by hitting, blaming children, and compared children to each other, table (14). People punish when they are upset or angry. The recipient experiences anxiety& fear. The use of punishment can lead to more resistance and aggression on the part of the one being punished. **Debord, (2000)** reported that children need to good modeling. Care givers should deal with stressful situation by using patience, loving guidance, and positive interaction rather than aggressive, hostile, and antisocial acts.

So, early intervention for foster children and care givers should be offered as a preventive measure

Study concludes by emphasizing that behavior modification among institutionalized children must be understood, identified and appropriate intervention provided to decrease the dire consequence of behavior problems.

VI.   Conclusion

In conclusion: There was significant improvement in knowledge, attitude, and practice of caregivers toward institutionalized school age children behavior between pre –post intervention .

Recommendations

Based on the current study the researchers recommend   to replicate this study in other settings to improve skills of caregiver and in turn rear healthy children Finally motivate the care givers in the institution care through financial rewards and incentives is must.

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