

Effect of social skills training on juveniles' psychological problems in a detention center in Ghana

ABSTRACT

Background. In this world it is important to train children to acquire useful skills such that they would take care of themselves tomorrow and show good behaviors. The world can only be a peaceful and developed place if children are trained to acquire social skills that are useful. Therefore, to determine whether social skills training would change juvenile misbehavior this study was conducted.

Methods. This study was a quasi-experimental design. The sample was 50 juveniles in a Correctional Centre in Accra, Ghana. The outcome measure was Brief Symptom Inventory (BSI). Test scores on delinquent behavior were compared across the two groups; (1) 25 juveniles who underwent social skills training (SST) and (2) 25 matched control group of juveniles who did not undergo SST. Participants in the training group underwent a one-month SST. The training sessions lasted for 60 minutes and they met three times a week for four weeks. Data collection was from May 2017 to August 2017.

Results. The results of the experimental group showed that 8 subscales somatization ($df = 48; t = 2.39; p < .025$), obsessive-compulsion ($df = 48; t = 4.32; p < .001$), depression ($df = 48; t = 4.13; p < .001$), anxiety ($df = 48; t = 3.80; p < .001$), hostility ($df = 48; t = 3.74; p < .001$), phobic anxiety ($df = 48; t = 3.80; p < .001$), paranoid ideation ($df = 48; t = 2.46; p < .021$), and Psychoticism ($df = 48; t = 2.28; p < .032$) to have statistically significant differences.

Conclusion. This study found that out of the 9 subscales used only 1 scale was not statistically significant for the experimental group.

Keywords: Brief Symptom Inventory, delinquency, Ghana, Juvenile, misbehavior, psychological problems, social skills training

1. Introduction

In this world it is important to train children to acquire useful skills such that they would take care of themselves tomorrow and show good behaviors. The world can only be a peaceful and developed place if children are trained to acquire social skills that are useful.

Effective social relations are necessary for emotional and behavioural modification, and successful working in social settings [1]. This success can be especially challenging for adolescents to establish and maintain competent social connections because of the many developmental changes that occur.

Juvenile misbehavior is a problem in contemporary society. In Ghana, according to the Department of Social Welfare annual performance report, 276 juvenile delinquency cases were handled in the year 2016 [2]. The Ghana prison service annual report in 2016 also indicated an average daily lock-up of 115 juvenile lawbreakers [2]. Ghana's population is reported to be very youthful with two in every five people being less than 15 years [3]. This is really a challenging issue especially because Ghana has limited prospects for youth development.

Juvenile misbehavior has been an issue, which has been discussed at all levels of human development. Juvenile misbehavior is taking part in an illegal behaviour by minors [4]. Most legal systems prescribe specific procedures for dealing with juveniles, such as juvenile detention centers, and courts. For the purpose of this study, Juvenile misbehavior is defined as acts of a kind which having been committed by

33 persons (boys) between the ages of 16 and 18 years, having resulted in their appearing before court and
34 successive committal to a Senior Correctional Centre (SCC), for a statutory period of 3 months to three
35 years.

36
37 The population of people in prison have higher rates of problems in multiple domains including, social [5],
38 Social skills are defined as a set of behaviours that allow individuals to initiate and maintain positive social
39 contacts, peer acceptance, and allow for effective surviving [6]. A social skills shortfall can take the form of
40 noncompliance with school rules, physical or verbal aggression, or defiance of authority figures [7].

41
42 According to Arthur [8] even though there exist a excess of literature on juvenile delinquency and how it
43 can be prevented in the world, there is a dearth of research with respect to Ghana.

44
45 The objective of this study is to determine if differences exists in the level of social skills possessed by
46 juveniles in detention who have had social skills training (SST) and those who did not have the training.
47 Therefore, this study reports the findings of level of social skills possessed by juveniles in detention
48 centres who have had social skills training (SST) and those who did not get the training.

49
50

51 **2. MATERIALS AND METHODS**

52 **2.1 Design and Sample**

53 This study was a quasi-experimental design with an experiment and a control group. The sample was
54 drawn from a population of 97 juveniles in detention at a Senior Correctional Centre (formally known as
55 Borstal Institute) in Accra, Ghana. The center admits Juveniles and young offenders (14-18) who have
56 passed through the Juvenile Courts in Ghana and sentenced for detention, normally between 3 months to
57 3 years.

58

59 **2.2 Inclusion and Exclusion criteria**

60 All juveniles in the junior correction center (formally called Borstal Institute) in Accra, Ghana were included
61 in this study.

62

63 **2.3 Ethical approval and informed consent**

64 Approval was granted by the Directorate of Ghana Prison Service (GPS/2017/005_UG). Participants
65 were assured of confidentiality, anonymity, and security of the data that would be collected. Verbal
66 informed consent was obtained from the participants before the start of the study and a debriefing was
67 conducted after completing the study.

68

69 **2.4 Outcome measure**

70 The outcome measure was Brief Symptom Inventory (BSI) developed by Derogatis [9]. It consists of a 53-
71 item questionnaire on a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely).

72

73 **2.5 Procedure**

74 This study consisted of data collection and social skills training. Participants completed Brief Symptom
75 Instrument (BSI) as baseline and demographic variables which took approximately 60 minutes. Before the
76 training both the experimental and control groups were administered the questionnaire. The experimental
77 group had one-month training, thereafter both the groups had a post test, but by then the control had no
78 social skills training. However, after collecting the data for both groups, a training schedule just like the
79 experimental group was conducted for the control group.

80

81 Specific social skills were targeted and the detailed manual developed based on the Liberman and Tracy
82 Social skills Modules [11]. Participants in the experimental group underwent a one-month SST. The
83 training sessions lasted for 60 minutes per session and they met three times a week on Mondays,
84 Wednesdays and Fridays. During the training sessions, with assistance of their teachers who served as
85 research assistants, each participant had the opportunity to ask questions, contribute and discuss the
86 issues that were raised. The teachers were given training as research assistants to carry out the training.
87 A number of skills building processes were used to enhance the learning process. Some of the skills

88 building processes were brainstorming, discussion, questioning, small group discussion and
89 presentations. Data collection was from May 2017 to August 2017.

90

91 2.6 Data analysis

92 After all the necessary data was collected the matched t-test was used to compare the means of the
93 ratings of juveniles and to determine statistically significant differences between the groups before and
94 after the SST. All data were analysed using SPSS.

95

96 3. RESULTS

97 3.1 Demographic data

98 There were 50 male juveniles who took part in the study because the Senior Correctional Centre does not
99 admit females. Participants age ranged between 15 – 20 years with a mean age of 16.6 years (SD =
100 1.49). Participants educational level were from Junior High School (JHS) 1 to Junior High School (JHS) 3
101 (M =13.5). Thirteen (13) participants were from JHS 1, 20 participants form JHS 2, and 17 participants
102 from JHS 3. There were 48 Ghanaians and 2 Togolese. The Ghanaians tribes were made up of 15 Ewes,
103 22 Asantes, 2 Dagombas, 3 Frafras, 2 Fantes, 4 Hausas and 2 Gas (Table 1).

104

105 **Table 1: Demographics of the Experimental and Control groups**

	Experimental Group N = 25 (SD)	Control group N = 25 (SD)
Age	15.9 (1.23)	17.3 (1.57)
Gender		
Male	25	25
Female	0	0
Nationality		
Ghanaians	27	21
Togolese	1	1
Educational Level		
JHS 1	8	5
JHS 2	8	12
JHS 3	9	8

106

107

108 3.2 Results from BSI scores

109 Results from the analysis of the scores showed out of the 9 scales used for the experimental group 8
110 subscales were statistically significant while 1 subscale was not statistically significant at $p < .05$ level of
111 significance (Table 2). The 8 subscales that showed statistical differences were somatization ($df = 48; t =$
112 $2.39; p < .025$), obsessive-compulsion ($df = 48; t = 4.32; p < .000$), depression ($df = 48; t = 4.13; p < .001$),
113 anxiety ($df = 48; t = 3.80; p < .001$), hostility ($df = 48; t = 3.74; p < .001$), phobic anxiety ($df = 48; t = 3.80; p$
114 $< .001$), paranoid ideation ($df = 48; t = 2.46; p < .021$), and Psychoticism ($df = 48; t = 2.28; p < .032$). Only
115 interpersonal sensitivity did not show statistical significance ($df = 48; t = 1.13; p > .272$). These results
116 reflected how close the means were for the pre-test and post-test (Table 2).

117

118 On the other hand, the scores from the control group from pre-test and post-test showed out of the 9
119 subscales, 3 were statistically significant while 6 were not statistically significant. There were statistically
120 significant differences at the $p < .01$ level in phobic anxiety ($df = 48; t = -3.45; p < .000$), paranoid ideation
121 ($df = 48; t = -2.35; p < .001$) psychoticism ($df = 48; t = 1.6; p < .012$). However there were not statistically
122 significant ($p < .05$) somatization ($df = 48; t = 3.22; p > .62$), obsession-compulsive ($df = 48; t = -2.67; p$
123 $> .127$), interpersonal Sensitivity ($df = 48; t = 1.23; p > .289$), depression ($df = 48; t = 3.22; p > .145$), anxiety
124 ($df = 48; t = 1.22; p > .144$) and hostility ($df = 48; t = 1.39, p > .210$) (Table 2).

Table 2: Summary of matched paired samples t-test, means and standard deviation

Scales	Comparison	Experimental Group N = 25				Control Group N = 25			
		Mean	SD	t	p	Mean	SD	t	p
1. Somatisation	Pre-test	1.89	(.86)	2.39	.025*	1.82	(.83)	3.22	.062
	Post Test	1.31	(.74)			1.79	(.94)		
	Score difference	.58				.03			
2. Obsession Compulsion	Pre-test	2.11	(.80)	4.32	.000*	2.32	(.85)	2.67	.127
	Post Test	1.35	(.68)			2.32	(.79)		
	Score difference	.76				-.00			
3. Interpersonal sensitivity	Pre-test	1.66	(.62)	1.13	.272	1.59	(.55)	1.23	.289
	Post Test	1.43	(.78)			1.58	(.61)		
	Score difference	.23				.01			
4. Depression	Pre-test	2.27	(.81)	4.13	.000*	2.34	(.87)	3.22	.145
	Post Test	1.34	(.81)			2.26	(.83)		
	Score difference	.93				.08			
5. Anxiety	Pre-test	1.94	(.70)	3.80	.001*	1.88	(.73)	1.22	.114
	Post Test	1.24	(.77)			1.86	(.79)		
	Score difference	.70				.02			
6. Hostility	Pre-test	2.14	(.96)	3.74	.001*	2.17	(.93)	1.39	.210
	Post Test	1.28	(.77)			1.98	(.66)		
	Score difference	.86				.19			
7. Phobic Anxiety	Pre-test	1.40	(.62)	1.75	.094	1.39	(.79)	-3.45	.000*
	Post Test	1.03	(.82)			1.41	(.82)		
	Score difference	.37				-.02			
8. Paranoid Ideation	Pre-test	2.06	(.61)	2.46	.021*	2.10	(.70)	-2.35	.001*
	Post Test	1.59	(.82)			2.22	(.53)		
	Score difference	.47				-.12			
9. Psychoticism	Pre-test	1.88	(.70)	2.28	.032*	1.91	(.76)	1.66	.012*
	Post Test	1.35	(.85)			1.89	(.80)		
	Score difference	.53				.02			

128
129
130

* $p < .05$
N = sample number; SD = standard deviation; t = refers statistic

131

4. DISCUSSION

132
133
134

The objective of this study was to determine if a difference exists in the level of social skills possessed by the juveniles in detention who have had Social Skills Training (SST) and those who did not get the training.

135
136
137
138
139
140
141

The findings from this study was that out of the 9 subscales used only 1 scales was not statistically significant for the experimental group. This means that the use of the social skills training had an overall impact on improving the symptoms of somatization, obsession-compulsion, depression, anxiety, hostility, and psychoticism of juveniles. This is consistent with a by [12] who reported that when the level of self-esteem was assessed among Korean young offenders and a control group, the results showed that young offenders self-reported significantly lower self-esteem on the Rosenberg Self-esteem scale than the

142 control group. This improvement in the symptoms could be because it offers them an opportunity to
143 discuss social issues which is worrying them.

144
145 Also, related findings revealed that the young offender self-reported showed increase in the problems of
146 aggression and depression as compared to the controls. Implication of this study suggests that
147 behavioural and emotional disorders could be prevalent amongst young offenders and impair their
148 reformation. Also in a longitudinal study, 97 delinquent boys were assessed at the time of admission and
149 three months later [13]. Findings of that study showed that many boys required psychiatric help on
150 admission, especially for depression and anxiety. The results further showed that great proportion of these
151 health needs remained unmet. This may be the case because most often depression and anxiety plays an
152 important role in social skills. That study therefore advocated an improvement in psychological and
153 psychiatric care for delinquent boys. It concluded that the fact remains that mental health problems among
154 young offenders are a source of worry and a great concern for many. Also it has been observed that
155 mental health problems exhibited among young offenders are five times more than among non-
156 delinquents [14]. Despite these grave concerns the issue receives virtually no attention from appropriate
157 authorities. This study has also confirmed the research in a longitudinal study, where 97 delinquent boys
158 were assessed at the time of admission and three months later [13]. Findings of that study showed that
159 many boys required psychiatric help on admission, especially for depression and anxiety. That study
160 further showed that a greater proportion of those health needs remained unmet. That study therefore
161 advocated an improvement in psychological and psychiatric care for delinquent boys. Despite these grave
162 concerns the issue receives virtually no attention from appropriate authorities.

163
164 This study has not been confirmed by a related study by Hopko et al. [13] in São Paulo Medical School. In
165 that study, some mental problems were associated with young offenders especially anger, depression and
166 low self-esteem. However, Dias et al. [15] study, had gone to confirm the reduction in mental health
167 symptoms of anxiety and anger after an intervention programme. However, the study by Dias et al. [15]
168 had confirmed a study by Bickel and Campbell [14] who conducted an investigation into the incidence of
169 mental health problems among young offenders as compared to controls (12-18 years) in Tasmania,
170 Australia using Adolescent Psychopathy Scale. That study showed that 40% scored positively for mood
171 disorder, 36% for Post-Traumatic Stress Disorder (PTSD) and 32% for anxiety disorder excluding PTSD.
172 They suggested that young offenders exhibit mental health problems five times more than non-
173 delinquents in the community [14].

174
175 The other 2 scales Interpersonal Sensitivity and Phobic Anxiety had no statistically significant effect on the
176 pre-test and post-test. The Interpersonal Sensitivity and Phobic Anxiety which was not impacted by the
177 training could be due to the isolation and confinement of the juveniles at the Senior Correctional Centre.

178
179 However, the control group showed only 3 scales of Phobic Anxiety, Paranoid Ideation and Psychoticism
180 to be statistically significant for the pre-test and post-test. However, the rest of the 6 scales were not
181 statistically significant. Phobic anxiety was not statistically significant in the experimental group but was
182 statistically significant in the control group. This phenomenon may be explained that probably those who
183 had the training were under pressure to learn since they knew they would be asked to respond to
184 questionnaires at the end of the training. A previous study by Stipelman [16] attempting to test the merit of
185 performance inhibition hypothesis examined the verbal content component of social skills in a group of
186 socially anxious individuals by using a task that did not require performance in front of others. That study
187 did not detect statistically significant differences between the socially anxious subjects and controls in
188 verbal content, although global ratings of skill still differentiated the two groups. Stipelman [16] concluded
189 that effective communication involves not just verbal content; method of delivery and nonverbal behaviors
190 most likely played a large role in successful social communication.

191
192 Furthermore, taking into consideration the level of statistical significance in this study it means that in
193 general that social skill training (SST) have a positive effect on the behaviour of juveniles who had the
194 training.

195

196 A study by Spence and Marzillier [17] found that behaviour problems included lack of appropriate eye
197 contact, excessive fiddling and head movements, and lack of an appropriate number of
198 acknowledgements and question-type feedback responses per minute.

199
200 This study is consistent with series of multivariate research projects in which Quay [18] has shown that
201 there is a similarity to these dimensions of behaviour in juveniles to categories defined by researchers of
202 child psychopathology. It has also been reported that supportive relationships might provide additional
203 social reinforcement and stress-buffering social support, both of which would be expected to reduce
204 depressive symptoms [19].

205 206 **LIMITATIONS**

207 The limitations of this study are the use of self-report data. The sample size was also small because there
208 were few juveniles at the center during the period of this study. The findings of this study might not
209 generalize beyond the sample since this study only involve boys. There could also be a problem of
210 confounding since those who had the training may interact with their colleagues before the post-test.

211
212 Despite these limitation to the best of the researcher's knowledge, this is the first study evaluating
213 juveniles in detention center using in Ghana using Brief symptom inventory (BSI).

214 215 **CONCLUSIONS**

216 In conclusion, this study provided evidence indicating juveniles who underwent social skills training (SST)
217 had improvement in their social skills as compared to their colleagues who did not have such training. This
218 study suggests that some of the subscales on the Brief Symptom Inventory (BSI), can be used to measure
219 the social skills competence of juveniles.

220
221 It is suggested that there should be a follow-up assessment after six months to find out how the skills they
222 acquired during the training is having impact on the lives.

223
224 SST should not be considered as the single intervention for juveniles with social skills deficits but rather as
225 an integral part of a comprehensive intervention programme for this population. Although SST is an
226 effective, evidence-based strategy in teaching social competence, much improvement in research
227 methodology will benefit the field.

228 229 **References**

- 230 1. Hasselt VBV, Hersen M. Handbook of Adolescent Psychopathology: A Guide to Diagnosis and
231 Treatment. Simon and Schuster; 1995.
- 232 2. Bosiakoh TA, Andoh P. Differential Association Theory and Juvenile Delinquency in Ghana's Capital
233 City - Accra: The Case of Ghana Borstal Institute. 2010.
234 <http://ugspace.ug.edu.gh/handle/123456789/2125>. Accessed 8 Dec 2018.
- 235 3. Ghana - Population and Housing Census 2010 - Ghana.
236 <http://www.statsghana.gov.gh/nada/index.php/catalog/51>. Accessed 9 Dec 2018.
- 237 4. Siegel L, Welsh B. Juvenile Delinquency: The Core. Cengage Learning; 2007.
- 238 5. Dembo R, Schmeidler J. A Classification of High-Risk Youths. NCCD News. 2003;49:201–30.
- 239 6. Rutherford RB, Quinn MM, Mathur SR. Handbook of Research in Emotional and Behavioral Disorders.
240 Guilford Press; 2004.
- 241 7. Lo Y, Loe SA, Cartledge G. The Effects of Social Skills Instruction on the Social Behaviors of Students
242 at Risk for Emotional or Behavioral Disorders. Behav Disord. 2002;27:371–85.
243 <http://www.jstor.org/stable/43153398>. Accessed 27 Nov 2015.
- 244 8. Arthur JA. Rehabilitation of Juvenile Offenders in Ghana. J Offender Rehabil. 1996;24:23–37.
245 doi:10.1300/J076v24n01_03.
- 246 9. Derogatis LR, Melisaratos N. The Brief Symptom Inventory: an introductory report. Psychol Med.
247 1983;13:595–605. doi:10.1017/S0033291700048017.
- 248 10. Derogatis LR, Fitzpatrick M. The SCL-90-R, the Brief Symptom Inventory (BSI), and the BSI-18. In:
249 The use of psychological testing for treatment planning and outcomes assessment: Volume 3: Instruments
250 for adults (3rd ed). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers; 2004. p. 1–41.

- 251 11. Liberman RP. A guide to behavioral analysis and therapy. Pergamon; 1972.
252 12. Chae PK, Jung HO, Noh KS. Attention deficit hyperactivity disorder in Korean juvenile delinquents.
253 Adolescence. 2001;36:707–25.
254 13. Hopko DR, McNeil DW, Zvolensky MJ, Eifert GH. The relation between anxiety and skill in
255 performance-based anxiety disorders: A behavioral formulation of social phobia. Behav Ther.
256 2001;32:185–207. doi:10.1016/S0005-7894(01)80052-6.
257 14. Bickel R, Campbell A. Mental health of adolescents in custody: the use of the “Adolescent
258 Psychopathology Scale” in a Tasmanian context. Aust N Z J Psychiatry. 2002;36:603–9.
259 15. Dias ÁM, Serafim A de P, Barros DM de, Dias ÁM, Serafim A de P, Barros DM de. Prevalence of
260 Mental Disorders and Recidivism in Young Offenders. Psicol Reflex E Crítica. 2014;27:317–22.
261 doi:10.1590/1678-7153.201427212.
262 16. Stipelman BA. Social skills deficit versus performance inhibition in socially anxious individuals. thesis.
263 2005. <http://drum.lib.umd.edu/handle/1903/3093>. accessed 28 nov 2015.
264 17. Spence SH, Marzillier JS. Social skills training with adolescent male offenders--II. Short-term, long-
265 term and generalized effects. Behav Res Ther. 1981;19:349–68.
266 18. Quay HC. Handbook of Juvenile Delinquency. Wiley; 1987.
267 19. Stice E, Ragan J, Randall P. Prospective relations between social support and depression: differential
268 direction of effects for parent and peer support? J Abnorm Psychol. 2004;113:155–9.
269
270