Needs and Problems of Adolescent Orphans at Governmental Residential Institutions in Alexandria

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Abstract

Background: *The orphanhood is a widespread phenomenon in both developed and developing countries. Adolescent orphans have a wide range of fundamental problems and unmet needs that affect their health and development.* ***Aim:*** *to identify the needs and problems of adolescent orphans at governmental residential institutions in Alexandria.* ***Setting:*** *The study was carried out in 22 governmental residential institutions, Alexandria, Egypt.* ***Subjects:*** *250 resident adolescent orphans. Additionally, 60 residential institution personnel who are responsible for the caring of adolescent orphans.* ***Tools:*** *Five tools were used. Tool I: " Adolescent orphans' socio-demographic and profile structured interview schedule". Tool II:" Anthropometric measurements". Tool III: "Strength and Difficulties Questionnaire " (SDQ). Tool IV: " Residential institution personnel socio-demographic data questionnaire" Tool V: "Residential institution physical environment observation checklist"* ***Results:*** *More than one-quarter of institutionalized adolescents expressed that they need psychosocial care and recreational activities. Most of them had behavioral and peer problems. There were significant relations between adolescent perpetration of violence and sub-scales of SDQ as conduct problems.* ***Conclusion:*** *Adolescent orphans have many needs as psychosocial and recreational needs furthermore they suffer from health, psychosocial, and behavioral problems.* ***Recommendation:*** *Providing psychosocial counseling programs for resolving the psychosocial problems of orphans*

Keywords: Adolescent, Alexandria, Governmental Residential Institutions, Needs and Problems, Orph

Introduction

Orphanhood is a serious phenomenon worldwide in both developed and developing countries alike. Orphans and vulnerable adolescents comprise a significant section of the population and suffer from poor health and miserable living conditions (Kelley etal., 2016).

Approximately 147 million a adolescents worldwide have lost one or both of their parents (UNICEF, 2022). Orphans and vulnerable adolescents are more prone to encounter problems compared to other adolescents. Considering this, adolescent orphans are more likely to experience food insecurity, poor psychosocial health, low academic achievement,anxiety, and trauma (Zhang et al., 2022). Theyworry about the future, struggle to find

peace after parental loss, and are less likely to contribute to the community positively (Ntuli et al., 2020).

Consequently, orphaned adolescents need a wide range of support ranging from those things vital for survival, such as food and medical care, to those that would improve their quality of life in the future such as psychosocial support, economic self-sufficiency, and education (Alem, 2020).

Community health nurses can be an essential part of a community, gain knowledge about this significant population group, evaluate the variables that may affect their health and quality of life, and apply this knowledge to support their development into physically and emotionally healthy individuals. Furthermore, community health nurses can inform healthcare professionals, religious institutions, and voluntary organizations about institutionalized adolescents' needs and the methods that can be used to enhance their health (Abdel-Rahman et al., 2022).

Aims of the Study

This study aimed to identify the needs and problems of adolescent orphans at governmental residential institutions in Alexandria.

Research questions

- What are the needs of adolescentorphans at governmental residential institutions in Alexandria?
- What are the problems of adolescent orphans at governmental residential institutions in Alexandria?

Materials and Method

Materials

Design: A descriptive research design was used to accomplish this study.

Settings: This study was conducted in all (22) governmental residential institutions which provide services for adolescent orphans and are affiliated to the Ministry of Social Solidarity in Alexandria.

Subjects: All resident adolescent orphans of both sexes in the governmental residentialinstitutions in Alexandria, aged from 10 to 18 years, who accepted to participate in the study and were free from any mental or physical disabilities were included in this study, they were 250 adolescents. Additionally, 60 residential institution personnel who are responsible for adolescent orphans were included in this study.

Tools: In order to collect the necessary data for the study five tools were used:

Tool one: "Adolescent orphans' socio-demographic and profile structured interview schedule". This tool was developed by the researchers after reviewing related literature. **It consists of four parts:**

Part I: Socio-demographic characteristics of the institutionalized adolescent orphans: Socio-demographic data included: age, sex, number of siblings, birth order, age on institutionalization, reason for institutionalization, and period of residence.

Part II: Health profile of institutionalized adolescent orphans: This part included: past health history, history of exposure to accidents, menstrual history for adolescent girls, current health status, and risk-taking behaviors such as smoking and violent behaviors.

Part III: Adolescent orphans' needs: This part included: physical needs, psychological needs, social needs, and recreational needs.

Part IV: Education profile of institutionalized adolescent orphans: This part included: educational grade, scholastic achievement, and the school problems with teachers, peers, and others.

Tool two: Anthropometric measurements: This part included: weight, height, and Body Mass Index (BMI) which are calculated using the WHO equation:
BMI = weight in kilograms/ height in meters^2. For assessing adolescents' nutritional status.

Classification of the BMI in adolescents

BMI classification	CDC perc. scores for children and adolescents
Underweight	< 5th percentile
Normal weight	≥ 5th to <85th percentile

Overweight	≥ 85th to < 95th percentile
Obesity	≥ 95th percentile

Tool three: Strength and Difficulties Questionnaire (SDQ): It was developed by Robert Goodman in 1999. It is used to assess the behavioral, emotional, and social problems among adolescents. The SDQ includes 25 items which are grouped into five sub-scales: hyperactivity, conduct, emotional, peer problems, and pro-social behavior (five items per scale).

A score is estimated for each scale (range 0–10) and The Total Difficulties Score will be generated by summing up the scores from all scales except the pro-social scale which is considered different from mental health difficulties. Resultant total score can range from (0 to 40) (Elattar et al., 2019).

Each perceived difficulty item will be scored on a 0–2 scale (0, not true; 1, somewhat true; 2, certainly true). Each perceived strength item will be reversely scored, i.e. 2, not true; 1, somewhat true; 0, certainly true.

Items	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-19	20-40
Emotional Problems Score	0-5	6	7-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4-5	6-10
Pro-social Behavior Score	6-10	5	0-4

Tool four: Residential institution physical environment observation checklist (Ministry of Social Solidarity, 2018). It was developed by the researcher after reviewing relevant recent literature based on the Ministry of Social Solidarity quality standards for social welfare institutions for adolescents deprived of family care. It included the general characteristics, living and sleeping arrangements, household food security, safety and security system, and availability of services in the residential institutions.

Method

Approval from the Research EthicsCommittee, Faculty of Nursing, Alexandria University, and approval from the undersecretary of the Ministry of Social Solidarity, and directors of the selected institutions were obtained to conduct this study after an explanation of the aim of the study.
The study tools were tested for content validity by 5 experts in the field of community, pediatric, and psychiatric health nursing. The necessary modifications were done accordingly. A pilot study was carried out on 10% of the study sample in order to test the clarity and feasibility of the research tools.

Tool III: Strength and Difficulties Questionnaire (SDQ) was translated into Arabic by Alyahri A et al., and tested for reliability using Cronbach's Alpha test. The reliability coefficient was 0.72 which is acceptable (Al-Mukhani, 2018).
The structured Interview time took approximately 30 to 45 minutes for each child. Data was collected by the researcher during the period from May 2022 to November 2022.

Ethical considerations:

Written informed consent was obtained from each study subject after explaining the aim of the study. Subjects' voluntary participation and their right to withdraw from the study at any time were ascertained. and the right to refuse to participate in the study and/ or withdraw at any time. Study subjects' anonymity was maintained as well as the confidentiality of the collected data. The researcher established relationships with adolescent orphans and explained the aim of the study, and they were assured that their responses would be kept secret.

Statistical Analysis

The collected data were organized, coded, transferred into a specially designed format to be suitable for computer feeding and statically analyzed using the statistical package for social studies (SPSS) Version 25.0. Variables were analyzed using descriptive statistics which included: percentages, frequencies, range (minimum and maximum), arithmetic mean, and standard deviation. Finally, analysis and interpretation of data were conducted. P-values of

0.05 or less were considered statistically significant.

Results

Table 1 portrays the studied institutionalized adolescents' demographic characteristics. The age of institutionalized adolescents ranged from 10 to 18 years, with a mean of 14.74±2.53 years. Less than half (46.8%) of them were in the age group 16-18 years old. More than two-thirds (70%) of them were males. More than three-quarters (80.4%) of them were placed in residential institutions due to honorable parentage.

Table 2 shows the health and nutritional status among the institutionalized adolescents. Regardinghealth status, less than half (42%) of themsuffered from health complaints. Around one-fifth (17.2%) of them had health problems mainly iron deficiency anemia which was reported by 46.5% of them. Moreover, it was found that more than one-third (37.2%) of them were overweight and obese.

Table 3 shows the lifestyle of institutionalized adolescents. Regarding their eating habits, nearly all of them consumed three meals or more per day. The majority of them (90%) consumed fast food. Concerning sporting activities, slightly more than one-quarter (26.4%) of them didn't practiceany sporting activities mainly due to disliking of sporting activities which was reported by 40.9% of them. Concerning sleeping hours/night, it was with a mean of 8.94±2.47h. concerning sleeping problems, more than one-third (38.4%) of them encountered sleeping problems. Concerning hygienic practices, the times of shower in winter and in summer with a mean of 2.08 ± 0.85 days and 5.30±2.16 respectively. As regards brushing of teeth, it was with a mean of 1.76 ± 0.74. According to periodic medical checkups, slightly more than two-thirds (67.2%) of them didn't make periodic medical checkups due to the stability of their health condition as reported by nearly all (97.6%) of them. Regarding risk-taking behaviors, it was observed that only 2.8% of male adolescent orphans were currently smoking cigarettes, and only 0.4% of them reported that they had a trial to use addictive substances.

Table 4 displays behavioral and emotional problems encountered by adolescents asrevealed by their self–report Strengths and Difficulties Questionnaire scoring (SDQ). Concerning emotional problems, more than one-tenth (12.4%) of them had abnormal emotional symptoms, with a mean of 3.51±
2.57. Regarding conduct problems, more than one-third (35.6%) of them had conduct problems, with a mean of 3.496±2.20.
Concerning hyperactivity problems, about one-fifth (18.8%) of them were abnormally hyperactive, and nearly the same percent (18%) of them had peer problems. Furthermore, 12.8% of them had abnormal pro-social manifestations such as adolescents volunteering to help others,with a mean of 7.29± 2.02.
Finally, the total difficulties score showed that 30% of studied adolescents had abnormal difficulties, with a mean of 15.13± 6.46.

Table 5 demonstrates the relation between adolescents' emotional and behavioral problems based on SDQ score and their violent behaviors (perpetration of violence andsuicide). It was found that there were significant relations between adolescent perpetration of violence and sub-scales of SDQ that included emotional, conduct, hyperactivity scales, and prosocial behaviors (P≤0.05). Regarding the suicidal attempt, it was pointed out that there were significant relations between suicidal attempts of adolescents and sub-scales of SDQ that includedemotional symptoms and peer problems scale (P≤0.05).

Table 6 demonstrates the relation between the needs and problems of studied institutionalized adolescents that were expressed by themselves and by their guardians. Regarding their needs, slightly more than half (53.3%) of guardians as compared to 28% of adolescents mentioned psychological care. There is a statistically significant difference between both groups (FET= 46.368, MCP=0.000) Concerning theirproblems, psychosocial problems such as stigma were the first problems mentioned by more than half (56.7%)of their guardians while reported by 29.6% of adolescents. It was found a statistically significant

difference between both groups (FET= 34.267, MCP=0.000).

Figure (1) presents the distribution of the studied residential institutions according to their environment. Around two-thirds (63.6%) of the observed residential institutions had fair environments while the rest (36.4%) of them had good environments

Discussion

There is a general agreement that parental loss is a traumatic experience in all stages of orphans' lives from delivery to adolescence. Adolescent orphans are the most susceptible group as they are more likely to develop psychological and behavioral problems and they also lack the physical maturity to manage their psychological stress (Kaur et al., 2018; Mahanta et al., 2022). Orphans struggle to achieve their basic needs which are essential for having a healthy life (Duraisamy et al., 2023; Osamy Zaid Anbar et al., 2023). So, the current study is conducted to assess adolescent orphans' needs and problems.

The current study found that slightly more than half of them were aged between 10- <16 years, and slightly more than two-thirds of them were males which may be due to the increased likelihood of the male adolescents to unsuccessful experiences and homelessness. Furthermore, the present studyrevealed that the main cause of institutionalization is honorable parentage (unknown parentage). Similar results were supported by El-Sakka et al. (2018) who revealed that more than half of the studied subjects with unknown parentage and two-thirds of them were aged between 12-17 years.

The basic physical needs of institutionalized adolescents were assessed through their lifestyle including nutritionalhabits, sporting activities, personal hygiene, sleeping habits, and periodic medical checkups.

According to eating habits, it was found that nearly all adolescent orphans consumed three meals or more per day. This is agreed with several studies such as Ibrahiem (2019), and El-Kassas (2017), who assessed the nutritional status of school-age institutionalized adolescents and found that a high percentage of the participants consumed three meals per day. On the other hand, most of the studied adolescents consumed fast food which may be explained by that fast food is often designed to be highly palatable,or as a result of peer pressure toward the intake of fast foods. This comes in line with El-Sakka (2018) who noted that more than half of the studied adolescents ate food outside the institutions.

Poor dietary habits in addition to unhealthy foods among essential factors leading to nutritional problems during adolescence including iron deficiency anemia which was reported by half of the studied adolescents. This comes in line with a study carried out among orphaned adolescents in Yemen by Al-Halani et al. (2023) which revealed that there is a high prevalence of anemia, parasitic diseases, and malnutrition among the participating adolescents.
Iron deficiency anemia has a negative impact on adolescents' cognitive function and schoolperformance. Another nutritional problem was mentioned by one-quarter of studied adolescents which is overweight. This might be due to over intake of fast food, slightly more than one-quarter of them didn't practice any sports. These results come in line with Ibrahiem et al. (2019) who reported that 14.7% of Egyptian adolescents living in orphanage institutions at Minia City were overweight.

Adolescents need to sleep from eight to 10 hours/ night to restore their energies, The present study revealed that more than one-third of them had sleeping problems such as insomnia, interrupted sleeping, and hypersomnia which may be related to stressors within the environment that they live in. This comes in line with Ibrahiem El-Sakka et al. (2018) revealed that 24.3% of studied subjects had sleep problems.

Moreover, the present study found that two-thirds of the studied adolescents didn't perform periodic medical checkups. This may be due to the lack of awareness about the importance of medical checkups and financial constraints. This finding agreed with El-Sakka et al. (2018) who found that most institutionalized children didn't perform periodic medical checkups. Institutionalized adolescents should undergo periodic medical checkups once a year from the ages of eleven and up. Adolescent-friendly clinics should be attached to residential institutions.

Additionally, the current study shed the light on psychosocial needs of adolescents as expressed by themselves and their guardians, it was found that the main need is psychological care and support.
Unmet psychosocial needs can lead to psychosocial problems such as stigma and exposure to abuse which comes in line with Alem (2020) who found that orphans need psychosocial support from society and that they were exposed to diverse psychological problems. Furthermore, Palacios et al. (2013) found that orphans have more social problems than others.

Adolescents are exposed to emotional and behavioral problems. These problems were assessed by Strengths and Difficulties Questionnaire (SDQ); the present study found that more than one-third of institutionalized adolescents had conduct problems such as fighting with others. This finding comes in line with a study conducted by Kaur et al., (2018) who found that institutionalized adolescents are more prone to conduct problems than others as they are deprived of parents' affection and care which affects relationships with others.

Moreover, about one-fifth (18.8%) of the institutionalized adolescents had hyperactivity like being restless and overactive, also nearly the same percent (18%) had peer problems such as loneliness. On the other hand, abnormal prosocial behaviors were less common among them. Similar results were reported by Krishnaswami & Kuttappan (2019) who noted that peer pressure was the most prevalent problem among children under institutional care whereas prosocial behavior was less common among them.

Examining adolescent risk- taking behaviors is an important area of adolescents' behavioral problems. These include smoking, substance abuse, and violent behaviors. Accordingly, the current result showed that there were significant relations between adolescent perpetration of violence and sub-scales of SDQ that included emotionalsymptoms, conduct problems, hyperactivity, and prosocial behaviors ($P \leq 0.05$).

Thesefindings come in line with the study of El- kaluby (2014) which was carried out among adolescents in Alexandria and found that the perpetration of violence was highest among adolescents who were identified by SDQ as having emotional problems, hyperactivity, and conduct problems and there were significant relations between these factors and adolescent perpetration of violence ($P \leq 0.05$).

Adolescent orphans suffer from many stressors which lead to self-directed violence in the form of suicidal attempts. The current study discovered a significant relationship between suicidal attempts of adolescents and sub-scales of SDQ that included emotionalsymptoms and peer problems ($P \leq 0.05$). Thesefindings agree with the study of Guo et al. (2019) which was conducted among Chinese adolescents and revealed that emotional and behavioral problems were associated with an elevated risk of single and multiple suicide attempts. There were significant differences emerged between suicidal attempts and each subscale of the SDQ ($P < 0.001$).

Regarding smoking and substance abuse, the present study indicated that a very few percentage of them were smokers or substance users. This may be explained by adolescents' denial that they are smokers to avoid punishment from residential institutions. In contrast, the current results differed from the results of Kumari (2023) who found a higher smoking prevalence among adolescent orphans.

Residential institutions are unique settings that are created to meet the crucial needs of orphans (Canaff, 2020). The current study found that around two-thirds (63.6%) of the observed residential institutions had fair environments which disagrees with Christopher, T., & Mosha, M. A. (2021) who found that orphan children in the study were not provided with adequate basic needs like water, quality and adequate food.

Conclusion

Based on the findings of the current study,it could be concluded that institutionalized adolescents suffer from an underestimation of their psychosocial needs as caring and support aswell as they face behavioral and peer problems such as abuse, stigmatization, and violent behaviors, so all suitable interventions must be done by organizations, community leaders, and the community

at large to meet their needs, resolve their problems, and improve their quality of life.

Recommendations

In line with the findings of the study, thefollowing recommendations are made:

- Providing psychosocial counseling programs forresolving the psychosocial problems of orphans
- Providing screening for health problems for both orphan adolescents and their caregivers.
- Conducting regular supervision and evaluation of all residential institutions based on international and national quality standards of care.
- Developing guidelines for nurse roles in residential care institutions.
- Comparative analysis between orphaned adolescents in residential institutions and non-orphaned adolescents living in stable family environments

Table (1): Distribution of the studied institutionalized adolescents according to their demographic characteristics

Demographic characteristics	Total (n=250)	
	No.	%
Age (in years)		
▪ 10-	57	22.8
▪ 13-	76	30.4
▪ 16 and more	117	46.8
Mean ±SD 14.74±2.53 Min- Max 10-18		
Sex		
▪ Male	174	69.6
▪ Female	76	30.4
Having siblings		
▪ No	22	8.8
▪ Yes	27	10.8
▪ Didn't know	201	80.4
Age of institutionalization		
Mean ±SD 1.18 ± 0.39		
Reasons of institutionalization		
▪ Death of one or both parents	20	8.0
▪ Social orphan hood	29	11.6
▪ Honorable parentage	201	80.4
Duration of institutionalization		
Mean ±SD 12.87± 4.75		

Table (2): Distribution of the studied institutionalized adolescents according to their current health and nutritional status

Current health and nutritional status	Total(n=250)	
	No.	%
1-Current health complaints		
▪ No	145	58.0
▪ Yes	105	42.0
Medical diagnosis		
▪ No	207	82.8
▪ **Yes**	**43**	**17.2**
- Respiratory disease(asthma)	10	23.3
- Iron deficiency anemia	20	46.5
- Insulin resistance	4	9.3
- Psychological disease	3	7
- Others (kidney disease)	6	13.9
BMI (kg/m^2)		
▪ Underweight	7	2.8
▪ Normal	150	60
▪ Overweight	61	24.4
▪ Obese	32	12.8

Table (3): Lifestyle of the studied institutionalized adolescent

Adolescent's Lifestyle	Total (n=250)	
	No	%
Eating habits / Number of meals/day		
▪ ≤ two meals	11	4.4
▪ Three meals or more	239	95.6
Mean ±SD = 3.82 ± 0.89		
Fast foods		
▪ No	25	10.0
▪ Yes	225	90.0
Exercise / Practicing sporting activities		
▪ Yes	184	73.6
▪ No (**Reasons**)	**66**	**26.4**
- Dislike of sporting activities	27	40.9
- No suitable place	15	22.7
- No time	17	25.8
-Others (laziness)	7	10.6
Sleeping / Hours/night		
Mean ±SD 8.94±2.47 Min- Max 0-15		
Encountered sleeping problems		
▪ No	154	61.6
▪ Yes	96	38.4
Hygiene / Taking shower/week in winter		
Mean ±SD 2.08±0.85 Min- Max 1-3		
Taking shower/ week in summer		
Mean ±SD 5.30± 2.16 Min- Max 1-7		
Brushing teeth/day		
Mean ±SD 1.76 ± 0.74 Min- Max 1-4		
Seeking periodic medical checkup		
▪ Yes	82	32.8
▪ No (**Reasons**)	168	67.2
- Lack of interest	2	1.2
- laziness	2	1.2
- Stability of the health condition	164	97.6
Risk taking behaviors		
Smoking habits/ Cigarette smoking		
▪ No	243	97.2
▪ Yes	7	2.8
Trial for substance abuse		
▪ No	249	99.6
▪ Yes	1	0.4

Table (4.) Distribution of the studied institutionalized adolescents according to their SDQ

SDQ subscales	Mean ± SD	Normal		Borderline		Abnormal	
		No	%	No	%	No	%
Emotional problems	3.51 ± 2.57	189	75.6	30	12.0	31	12.4
Conduct problems	3.496 ± 2.20	124	49.6	37	14.8	89	35.6
Hyperactivity	4.396 ± 2.25	174	69.6	29	11.6	47	18.8
Peer problems	3.73 ± 1.90	108	43.2	97	38.8	45	18.0
Prosocial behaviors	7.29 ± 2.02	199	79.6	19	7.6	32	12.8
Total difficulties	15.13 ± 6.46	128	51.2	47	18.8	75	30

Table (5): The relation between adolescents' emotional and behavioral problems based on SDQ score and their violent behaviors (perpetration of violence and suicide)

SDQ score	Suicide				Test of significance	Perpetration of violence								Test of significance
	Yes (n=14)		No (n=236)			No (n=75)		Rarely (n=19)		Sometimes (n=105)		Always (n=51)		
	No	%	No	%		No	%	No	%	No	%	No	%	
Emotional scale														
Normal (189)	6	3.2	183	96.8	^{MC}P =10.374	62	32.8	16	8.5	82	43.4	29	15.3	^{MC}P =13.685
Borderline (30)	2	6.7	28	93.3	**P =0.004***	8	26.7	1	3.3	9	30.0	12	40	**P=0.027***
Abnormal (31)	6	19.4	25	80.6		5	16.1	2	6.5	14	45.2	10	32.3	
Conduct scale														
Normal (124)	3	2.4	121	97.6	^{MC}P =5.116	52	41.9	8	6.5	50	40.3	14	11.3	^{MC}P =23.582
Borderline (37)	3	8.1	34	91.9	**P=0.070**	8	21.6	3	8.1	17	45.9	9	24.3	**P=0.001***
Abnormal (89)	8	9.0	81	91.0		15	16.9	8	9.0	38	42.7	28	31.5	
Hyperactivity scale														
Normal (174)	7	4.0	167	96.0	^{MC}P =4.356	63	36.2	14	8.0	72	41.4	25	14.4	^{MC}P =18.266
Borderline (29)	4	13.8	25	86.2	**P=0.085**	4	13.8	1	3.4	13	44.8	11	37.9	**P=0.004***
Abnormal (47)	3	6.4	44	93.6		8	17	4	8.5	20	42.6	15	31.9	
Peer problems scale														
Normal (108)	2	1.9	106	98.1	^{MC}P=6.231	41	38	6	5.6	40	37.0	21	19.4	^{MC}P =7.033
Borderline (97)	7	7.2	90	92.8	**P=0.034***	23	23.7	10	10.3	45	46.4	19	19.6	**P=0.317**
Abnormal (45)	5	11.1	40	88.9		11	24.4	3	6.7	20	44.4	11	24.4	
Pro-social scale														
Normal (199)	11	5.5	188	94.5	^{MC}P =1.399	63	31.7	15	7.5	82	41.2	39	19.6	^{MC}P =12.494
Borderline (19)	2	10.5	17	89.5	**P=0.504**	1	5.3	0	0.0	10	52.6	8	42.1	**P=0.038***
Abnormal (32)	1	3.1	31	96.9		11	34.4	4	12.5	13	40.6	4	12.5	
Total difficulties														
Normal (128)	1	0.8	127	99.2	^{MC}P =13.183	54	42.2	10	7.8	49	38.3	15	11.7	^{MC}P =28.677
Borderline (47)	4	8.5	43	91.5	**P=0.001***	8	17	5	10.6	25	53.2	9	19.1	**P=0.000***
Abnormal (75)	9	12	66	88.0		13	17.3	4	5.3	31	41.3	27	36	

^{MC}P: Monte Carlo test ***:** Statistically significant at $p \leq 0.05$

Table (6): The relation between needs and problems of studied institutionalized adolescents as expressed by themselves and by their guardians.

Adolescents' needs and problems	Adolescents (n=250)		Guardians (n=60)		Total (n =310)		Test of significance
	No.	%	No.	%	No	%	
Needs of institutionalized adolescents							$^{MC}P = 44.460$ **P** =0.000*
▪ Recreational activities	69	27.6	12	23.3	81	26.1	
▪ Psychosocial care	70	28	32	53.3	102	32.9	
▪ Financial	12	4.8	2	3.3	14	4.5	
▪ Others (religious, educational)	12	4.8	12	20.0	24	7.7	
▪ No needs	87	34.8	2	3.3	89	28.7	
Problems of institutionalized adolescents							$^{MC}P = 40.275$ **P** =0.000*
▪ Violence / Bullying	45	18.0	19	31.7	64	20.6	
▪ Psychosocial (stigma)	74	29.6	31	51.7	105	33.9	
▪ Unemployment	9	3.6	0	0.0	9	2.9	
▪ Institutional problems (lack of services)	0	0.0	3	5.0	3	1.0	
▪ Others (educational problems)	13	5.2	0	0.0	13	4.2	
▪ No problems	109	43.6	7	11.7	116	37.4	

^{MC}P: Monte Carlo test *: Statistically significant at $p \le 0.05$

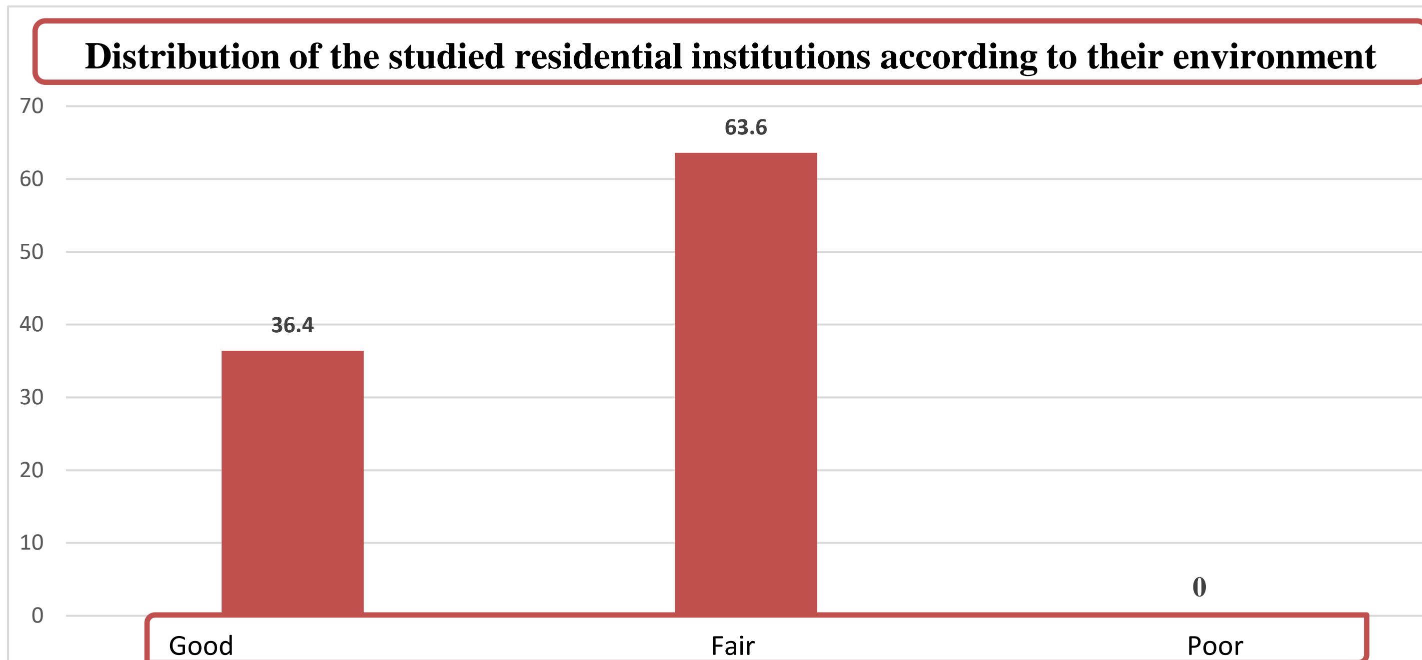

Figure (1): Distribution of the studied residentialinstitutions residential institutions according to their environment

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