

Report on

Musculoskeletal symptoms and psychosocial status among working children's

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Abstract

Title: Musculoskeletal symptoms and psychosocial status among working children's.

Objective:

- Socio-demographic characteristics of working children.
- Prevalence of musculoskeletal symptoms among working children within the last 12 month.
- Activities of daily living disruption due to musculoskeletal symptoms.
- Psychosocial status among working children.

Study design:

The study was conducted through cross sectional design among the participants who were selected according to the inclusion criteria. Children's/Adolescent's (6-17 years old) Psychosocial Assessment was used to collect the data from the participants. The questionnaire was fulfilled through asking question to the participant and teacher and also observing the participants behavior.

Result:

Result shows the socio demographic characteristics of the children like age, gender, working area etc. 66.67% participants report that they have musculoskeletal symptom (MSS) in one or more body regions during the past 12 months. 65.1% said that they have Activities of Daily Living (ADL) disruption due to MSS. The participants has some psychosocial status like 25.4% have frequently trouble sleeping, 13.8% have frequently poor appetite, 23.8% frequently and 4.8% very frequently seems fearful and anxious. 22.5% participants very frequently have poor concentration and attention in school work.

Conclusion:

By the above findings it is clear that there is huge area to work with these clients. As the children have many limitation but we should teach them how to cope with the environment and how to handle the situation in the very beginning of their life.

Abbreviation

VERC- Village Education Resource Centre

ECD-Early Childhood Development

ADL- Activities of daily living

MSS- Musculoskeletal symptoms in the neck, shoulders, elbows, and hands or wrists were defined by aches, pain, or discomfort (Devereux et al.2002, p-270). People with musculoskeletal symptoms sometime complain that their entire bodies ache. Their muscle may feel like they have been pulled. Sometimes the muscles twitch or burn. Symptoms may vary from person to person. Musculoskeletal symptoms are the sign of the trauma that causes the musculoskeletal disorder. Injuries often start as minor aches and pains but can develop into disabling injuries that affect our activities of daily living such as laundry, hobbies and even the ability to pick up our children (Saravanan, 2011, p.57).

Musculoskeletal disorder: Musculoskeletal disorder is a term that refers to soft tissue injuries that occur gradually over time. It can affect muscles, tendons, ligaments, joints and nerves. These injuries can develop when the same muscles are used over long periods without adequate rest and also in awkward posture. The severity of the MSD can vary. MSDs usually arise due to inappropriate physical work activities or appalling workplace conditions (Chan et al.2002, p.248). Pain and discomfort may interfere with everyday activities. Musculoskeletal disorder identifies a large group of conditions that result from traumatizing the body.

Background:

Village Education Resource Centre (VERC) is an organization working with different challenging aspect, education of the working children is one of them. VERC run a huge amount of school to the local community for the working child to educate them as a part of Early Childhood Development (ECD).After having a meeting with the responsible authority of the VERC about the role of Occupational Therapy they become interested to do this report. After permitting we are started to do this work in a project implemented by VERC titled “Protection of children at risk from abuse and exploitation and ensure their development” while is supported by Terredes Hommes Netherlands. For completing this report data was collected from the 7 local school of VERC. The participant was the working children who are reading in this school in any class.

From these participants the following things were identified.

- Socio-demographic characteristics of working children.
- Prevalence of musculoskeletal symptoms among working children within the last 12 month.
- Activities of daily living disruption due to musculoskeletal symptoms.
- Psychosocial status among working children.

Methodology:

- Research Design : Cross-sectional
- Study Setting : VERC School
- Study Population: Working children of VERC School and teachers.
- Sample size : 63
- Sampling procedure: Randomly
- Analysis: Through SPSS software.
- Tool: Standardized questioners, pen, and paper.
- Data collection procedure: After taking permission from VERC the researchers were visit the VERC School for collecting data. A structured questioner used for data collection. After taking consent from the teacher and the participant the researcher collected data only to those who fulfill the inclusion criteria.

Inclusion criteria:

- Working children and teachers of VERC School.

Socio-demographic findings:

From the total participant 43.8% were male and 54.7% were female. In this study total 63 children are included where 44.4% were domestic worker, 7.9% were garments worker, 17.5% works in factory settings, 11.1% are tokai and 19% are others. These characteristics named working area are shown on figure 1.

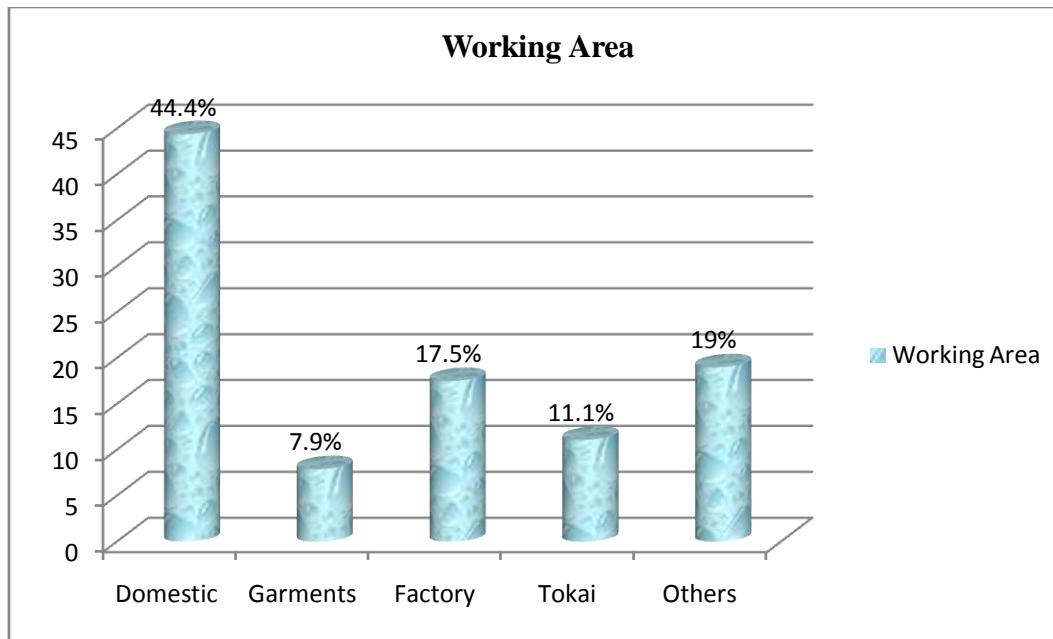


Figure 1: Working area

From the total participant the researcher found 57.1% are at 6-10 and the other 42.9% are 11-14 years old. By this study it is clear that the participant of the study starts to work when at the mean age of 8.70 years old. 47.6% children are worked 4-6 hours and 30.6% children worked more than 10 hours. 25.4% fathers of the children included in this report are day labor and 42.9% mothers are garments worker. The other socio-demographic characteristics are given in Table 1.

Variables	Frequency	Percentage
Gender		
Male	28	43.8%
Female	35	54.7%
Age		
6-10	36	57.1%
11-14	27	42.9%

Working hour		
4-6	30	47.6%
8	6	9.5%
10	8	12.7%
>10	19	
Income per day		
20	23	36.5%
50	24	38.1%
100	8	12.7%
150-200	3	4.8%
None	5	
Father's profession		
Garments worker	8	12.7%
Truck driver	7	11.1%
Rickshaw puller	15	23.8%
Day labor	16	25.4%
Others	17	27%
Mothers profession		
Garments worker	27	42.9%
Domestic worker	5	7.9%
Day labor	4	6.3%
House wife	18	28.6%
Others	9	14.3%
Parent relationship		
Good	30	47.7%
So So	17	27%
Not good	16	25.4%
Age at which work began		
Mean \pm SD		
8.70 \pm 1.73		

Table1: Socio- demographic characteristics

Findings the prevalence of MSS and ADL disruption due to MSS:

Figure 2 represents the rate of overall the musculoskeletal symptoms (MSS) during the last 12 month among the working children by using Nordic musculoskeletal questionnaire. One year prevalence of musculoskeletal symptom by anatomical area showed different prevalence for different anatomical areas. 66.67% of respondents reported that musculoskeletal symptoms troubled them in one or more body regions during the past 12 month. Among this responds lower back was the area with the highest prevalence of musculoskeletal symptom (34.9%) followed by neck (4.3%), shoulder (19%), upper back (11.1%) and elbow (11.1%), wrist (9.5%), thigh (4.8%), ankle/feet (1.6%), knee (1.6%).

66.67% of respondents reported that musculoskeletal symptoms and a high rate of lower back pain during last 12 month (34.9%) which is dangerous situation for a child. Because usually people have MSS after a certain period of time if the children get MSS at this age in future what will remain for them? It's occurred because of their awkward posture, literacy, lack of guidance and involve in hard work very early stage.

A survey which was conducted to establish the prevalence and characteristics of back pain in school children that results provide additional evidence that back pain is a serious problem in children aged 11-14 years, whilst also indicating widespread co-occurrence of pain in the neck, upper back and lower back spinal regions (Trevelyan and Legg 2010). Musculoskeletal pain is common among working children and teens. In a study of Brazil had found that 15% of working children have pain in the neck, knee, wrist or hands, and upper back (Fassa et al. 2005, p.665).

Musculoskeletal symptom can impact on individuals and households like- quality of life, employment status, loss of working time, loss of productivity and impact. The consequences of MSDs can be sick leave/absence from work; severity of injury and functional impairment; and increase medical costs and also crate many musculoskeletal diseases like: neck pain, back pain, CTS, DQS etc.

Prevalence of musculoskeletal symptom during last 12 month

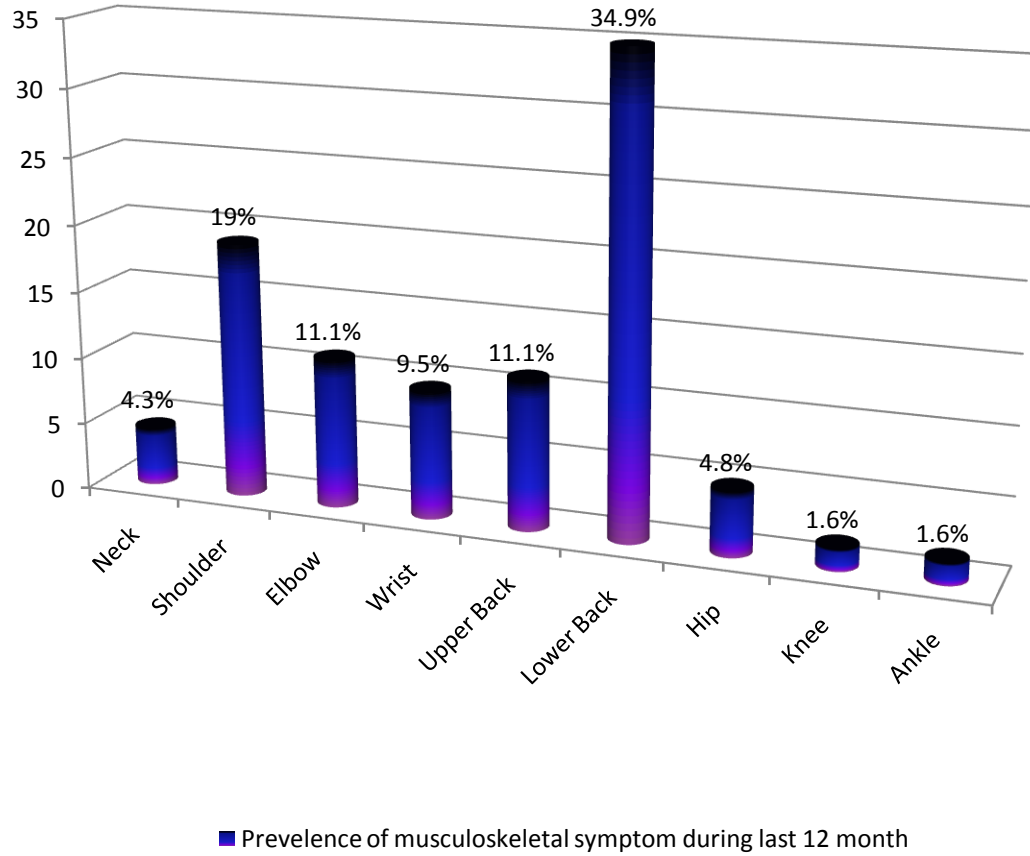


Figure 2: Prevalence of MSS during last 12 month

Figure 3 represents the rate ADL disruption due to MSS among working children. Here we have seen that 34.9% have ADL disruption which is an alarming sign for everyone. 34.9% children told that they have Activities of Daily Living disruption because of their MSS and some of them told they want to take break when they feel pain in body part. As they work in others house or factory but they don't gave it. As a result they are suffering more pain on that time. And this is one of the consequences of musculoskeletal disorder.

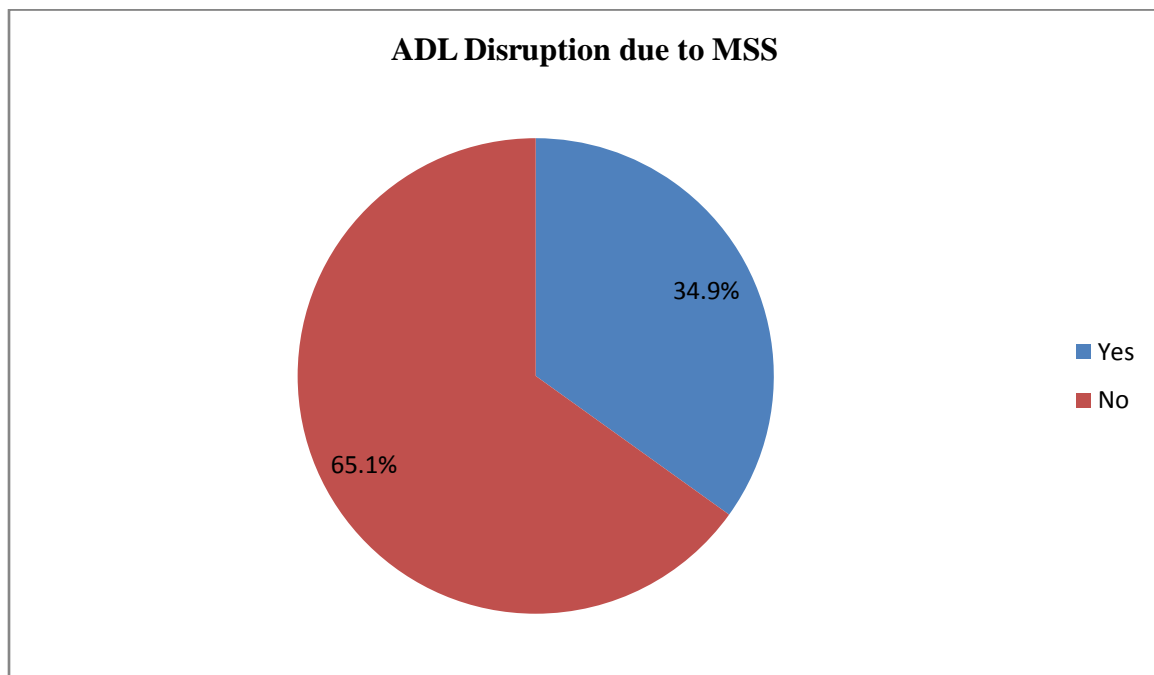


Figure 3: ADL disruption due to MSS among street children

Findings about psychosocial status:

A psychosocial disorder is a mental illness caused or influenced by life experiences, as well as maladjusted cognitive and behavioral processes. The majority of psychological disorders are thought to be caused by a complex combination of biological, genetic, familial and social factors. For collecting the data the researchers use an adolescence assessment of Valley mental health for finding out the problem related to child's behavior. After completing this study the researchers understood that the working children of early age have faced different problem. Findings shows that the 25.4% participant frequently has frequently faces trouble sleeping. Trouble sleeping is

marked as many other health problems are related with this. Studies said that inadequate sleep can cause weight gain, heart disease, hypertension, mood disorder, poor immune function etc. The present study found that frequently 13.8% children have poor appetite. A wide variety of conditions can cause appetite to decrease, ranging from mental conditions to physical illnesses for example depression, anxiety, eating disorder, liver disease, hepatitis, dementia etc. The student included in this report seems sad or unhappy although the age is appropriate for happiness and playing but they have a hard time to play. Complains of physical problems, like headaches or stomachaches are mostly common to almost every children and its percentage is also high. Somatic complaints were strongly associated with emotional disorders in girls and with disruptive behavior disorders in boys. For girls, stomach aches and headaches together and musculoskeletal pains alone were associated with anxiety disorders. For boys, stomach aches were associated with oppositional defiant disorder and attention-deficit hyperactivity disorder. Musculoskeletal pains were associated with depression in both girls and boys (Egger et al. 1999). The participants of this study were at a high risk of the mentioned problem as they complain physical problems, like headaches or stomachaches 33.6% frequently and 17.5% very frequently. The lists of the other difficulties are specified in Table 2.

Variables	Frequency (n)	Percentage (%)
Has trouble sleeping		
Never	27	42.9
Rarely	8	12.7
Occasionally	12	19
Frequently	16	25.4
Has poor appetite		
Never	21	33.3
Rarely	7	11.1
Occasionally	19	30.2
Frequently	15	13.8
Very frequently	1	1.6
Seems sad or unhappy		
Never	19	30.2
Rarely	16	25.4
Occasionally	12	19
Frequently	16	25.4
Loses interest of having fun		
Never	26	41.3
Rarely	10	15.9
Occasionally	15	23.8
Frequently	11	17.5
Very frequently	1	1.6

Complains of physical problems, like headaches or stomachaches		
Never	15	23.8
Rarely	3	4.8
Occasionally	13	20.6
Frequently	21	33.6
Very frequently	11	17.5
Seems fearful and anxious		
Never	22	34.9
Rarely	12	19
Occasionally	11	17.5
Frequently	15	23.8
Very frequently	3	4.8
Has poor concentration and attention when it comes to school work		
Never	13	20.6
Rarely	7	11.1
Occasionally	18	28.6
Frequently	11	17.5
Very frequently	14	22.2
Steals		
Never	26	41.3
Rarely	13	20.6
Occasionally	11	17.5
Frequently	13	20.6
Bites finger nails		
Never	28	44.4
Rarely	5	7.9
Occasionally	12	19
Frequently	2	3.2
Very frequently	16	25.4
Cuts school		
Never	15	23.8
Rarely	27	42.9
Occasionally	13	20.6
Frequently	5	7.9
Very frequently	3	4.8
Seems tired		
Never	18	28.6
Rarely	15	23.8

Occasionally	13	20.6
Frequently	15	23.8
Very frequently	24	23.2

Table 2: Findings of psychosocial difficulties

The students have poor concentration and attention in school work. This data was collected by questioning to the teacher and the students. After completing the analysis it is clear that 28.6% have occasionally, 17.5% have frequently and 22.5% have very frequently poor concentration and attention in school work. The percentages with the total findings are specified in figure 2.

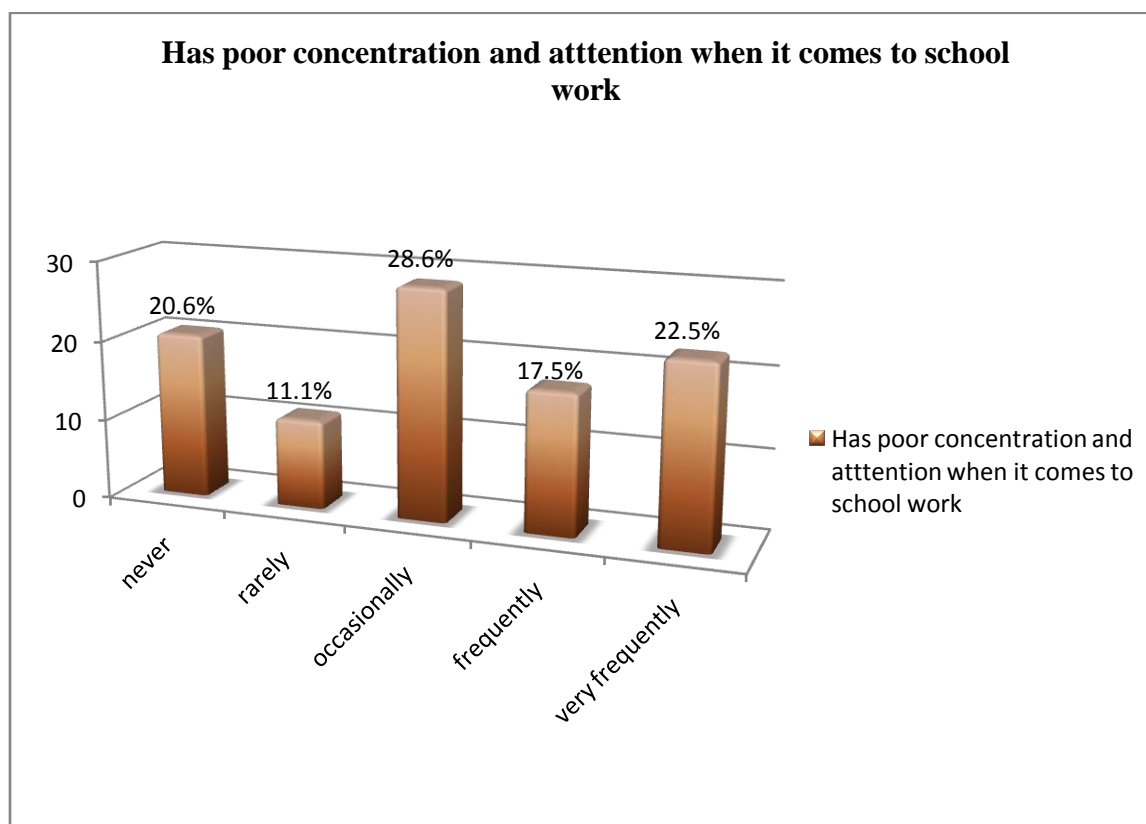


Figure 4: Has poor concentration and attention in school work

A big amount of children (42.9%) frequently blames others for their mistakes. 9.5% children occasionally blames others, 7.9% rarely and 8.2% children never blames others for own mistakes. The result of blames others for their mistakes are showed in figure 3.

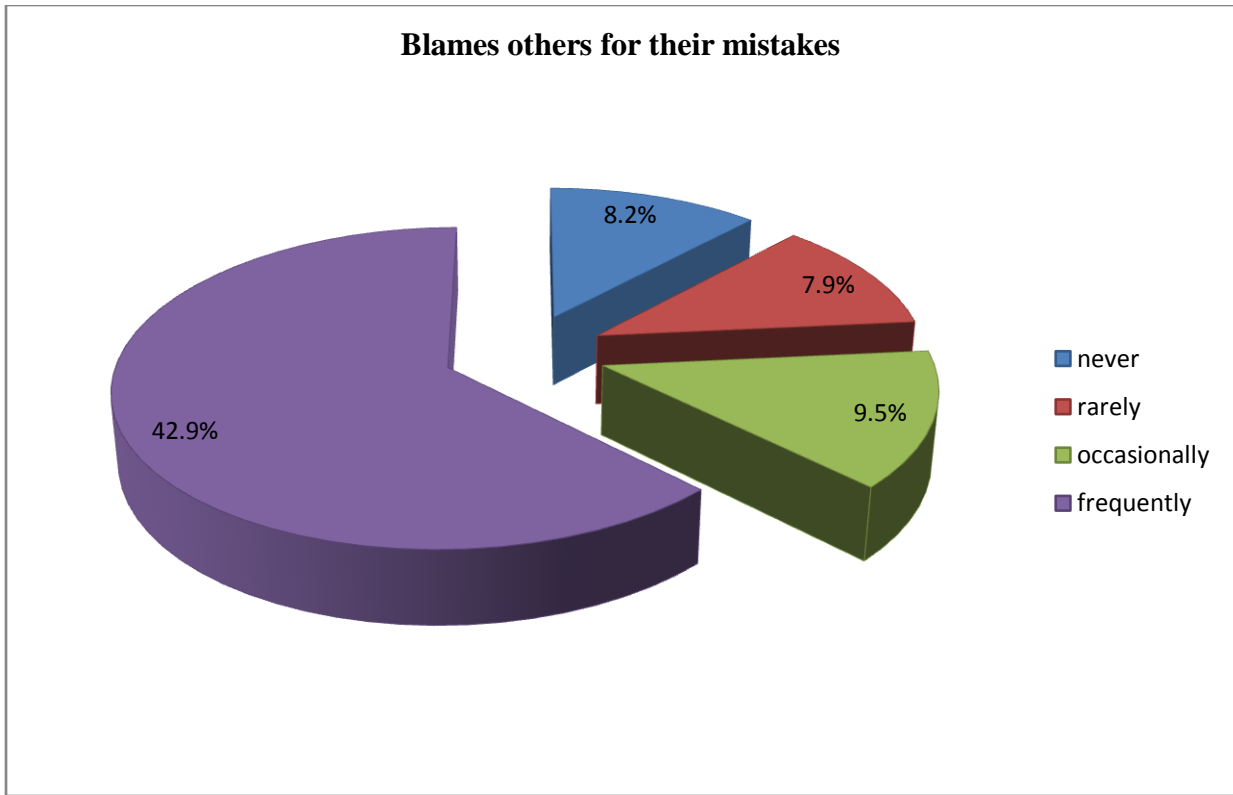


Figure 5: Blames others for own mistakes

Anger is the common psychological problem all over the world which is common among the younger, adult as well as children. Throughout the result it is also focused with a large percentage of 44.4 who frequently get angry. 36.5% children say that they never get angry, 14.3% rarely and 4.8% children occasionally get angry which is shown in figure 6.

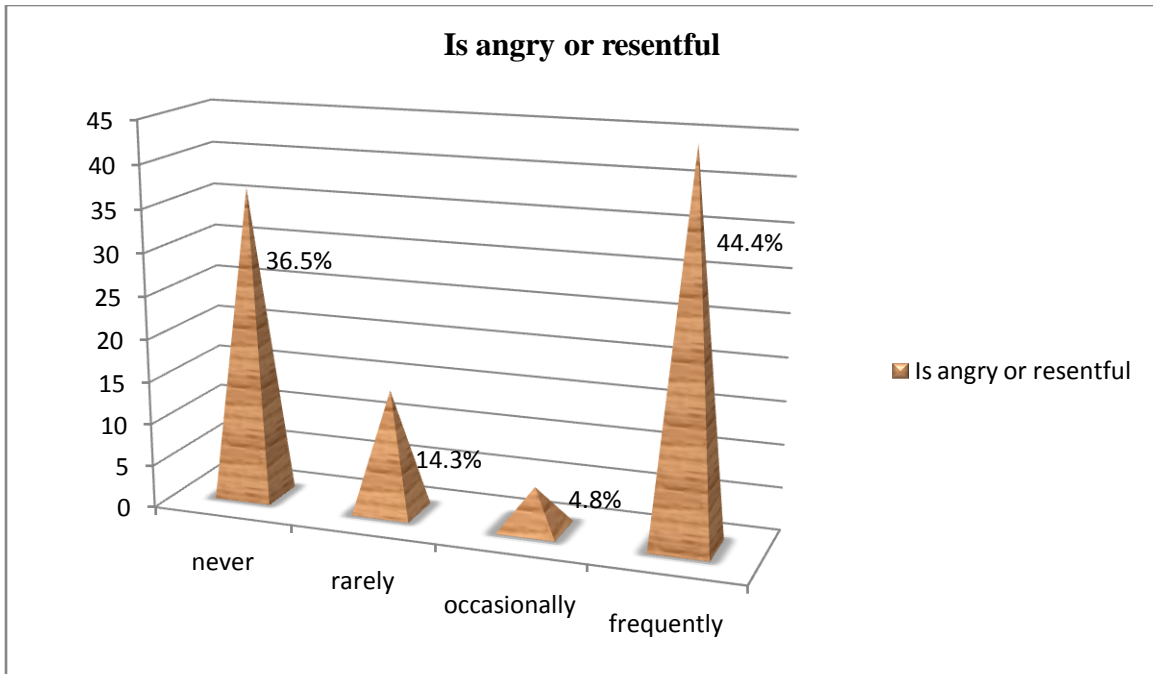


Figure 6: Is angry

The children from whom the data was collected frequently telling lies. Although it was tough to find out the information but with the help of the teacher, conversation with the children and by observing their behavior this result was found. Findings outlined in figure 7 shows that 25.4% stated that they never tell lies, 9.5% rarely, 44.4% children frequently and 15.9% tell lies very frequently.

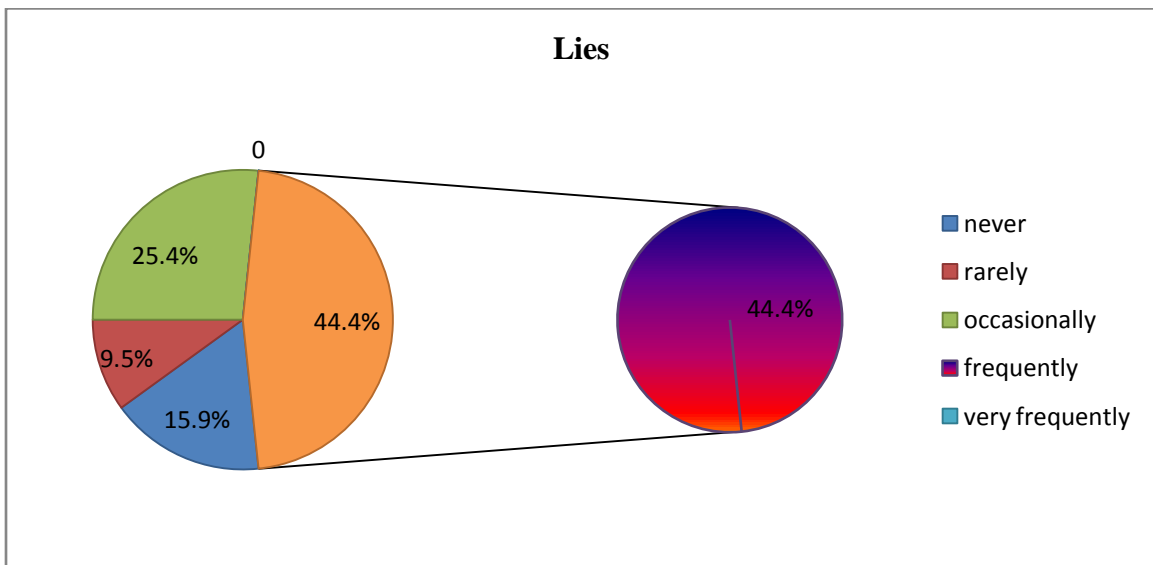


Figure 7: Telling lies

Children were physically cruel to other people and the findings about this are shown on figure 8. 25.4% were frequently and 17.5% were occasionally cruel to other people.

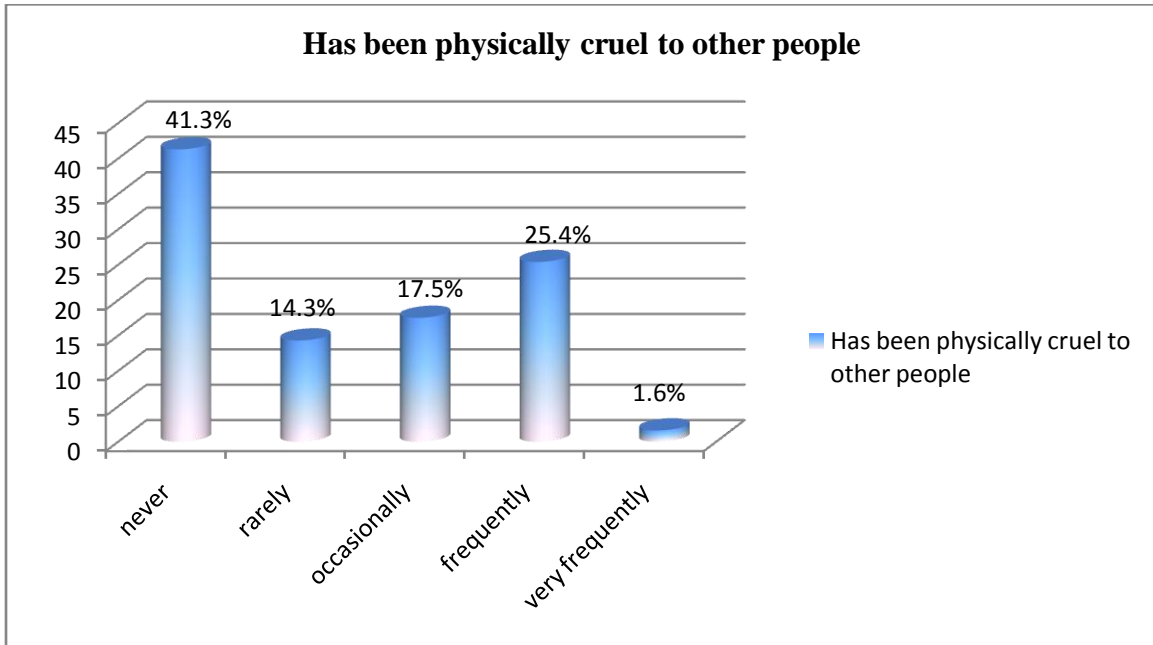


Figure 8: Has been physically cruel to other people

Though the children were physically cruel to other people they don't seem sorry for hurting others. 47.6% frequently done this the other was given in figure 9.

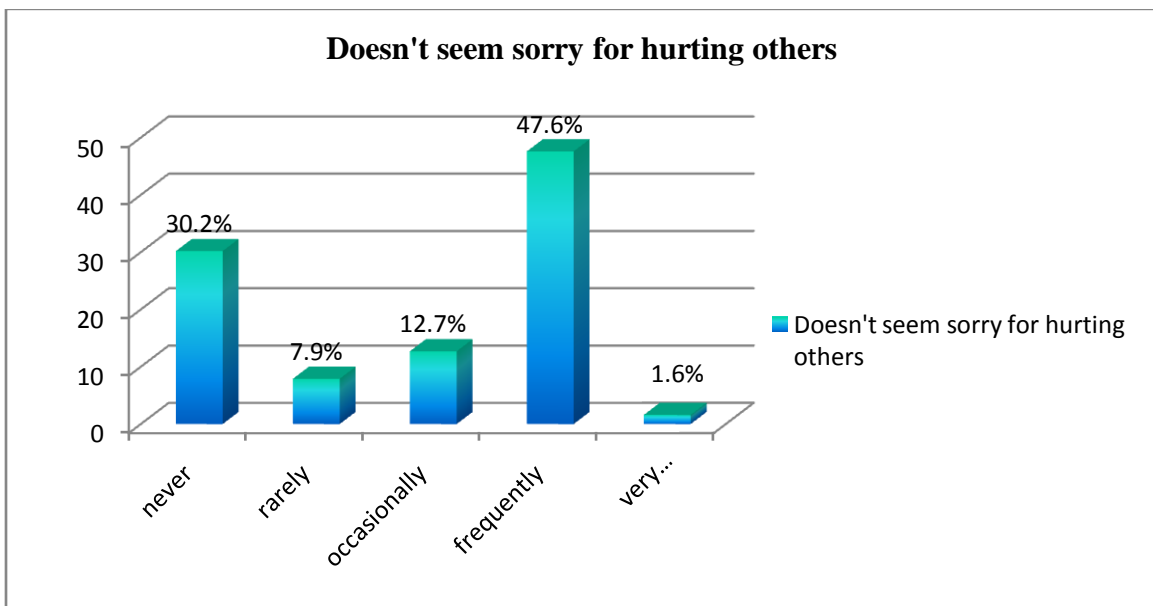


Figure 9: Doesn't seem sorry for hurting others

Substance use history:

Most of the student told that they don't use any kind of substance. From the teacher interview it is find out that some student is still continue tobacco and that is 4.8%. Teachers also suspected that 4.8% are still continued but they don't tell about it to the senior.

In substance use history most of the children told they don't use any kind of substance during their work place. But those children are staying in VERC School and their teachers are well known about the child, they have given information that the child used it. Children are not staying in this school for a long period time because of their profession and most of them were new comer as result teacher didn't collect the information about the child till now. Though they tried but couldn't give information for all children. In this report we also saw that 79.4% participant's family members are substance user so it may be another reason for the participants substance using. Studies said that children of alcoholics are often viewed as having major psychological problems resulting from their interactions within disturbed family structures (Jacob and Leonard 1986).

	Current	Suspected	Past	No
Does the child use tobacco in any form?	4.8%	4.8%	9.5%	81.0%
Does the child use alcohol?	1.6%	1.6%	4.8%	92.1%
Does the child use caffeine (any form, including cola drinks?)	1.6%	0%	6.3%	92.1%
Does the child use recreational drugs?	1.6%	1.6%	3.2%	93.7%

Table 3: Substance use history of the children

- Current: The children are still involving to use in any kind of substance.
- Suspected: Teacher/ Parents/data collector assumed that the children are using in any kind of substance.
- Past: The children used substance previous days but not now.

Medical history:

Figure 10 shows that 60.3% participants had seen a doctor within the last year. Most of them told they went to the doctor because of their fever and some of them told for pain or other injury.

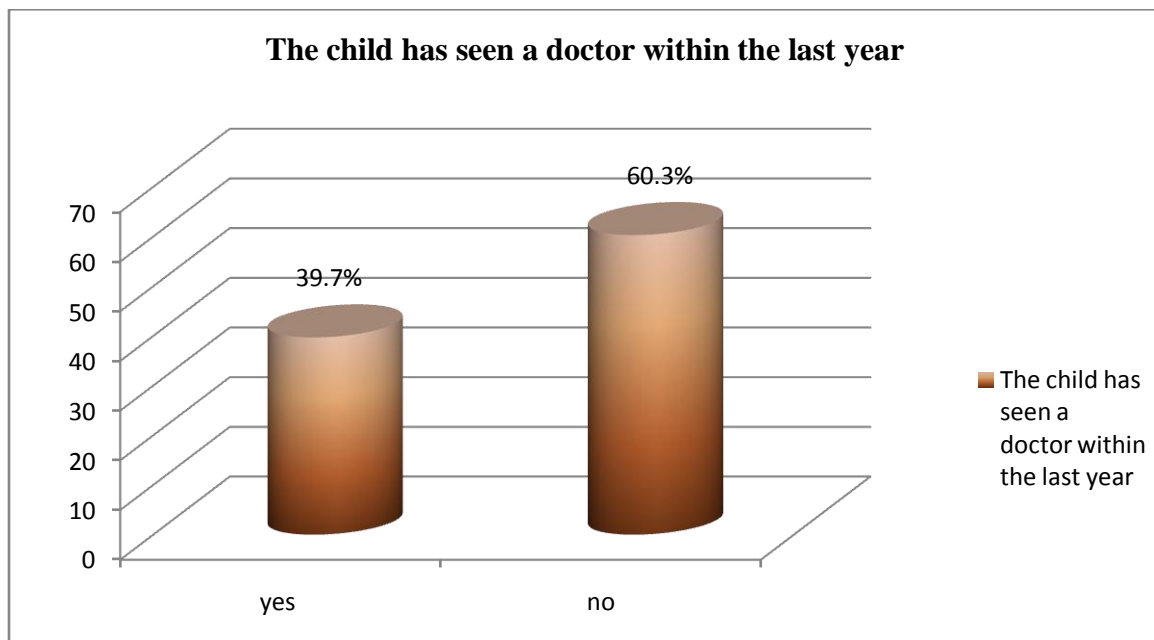


Figure 10: The child has seen a doctor within the last year

Figure 11 show that 33.3% participants told they have allergies. It may occur because they are working in an unhygienic environment and they don't keep neat and clean themselves. The working children are not aware about the side effects of unclean or unhygienic environment so they don't give much importance on this. As a result day by day they become many skin problems.

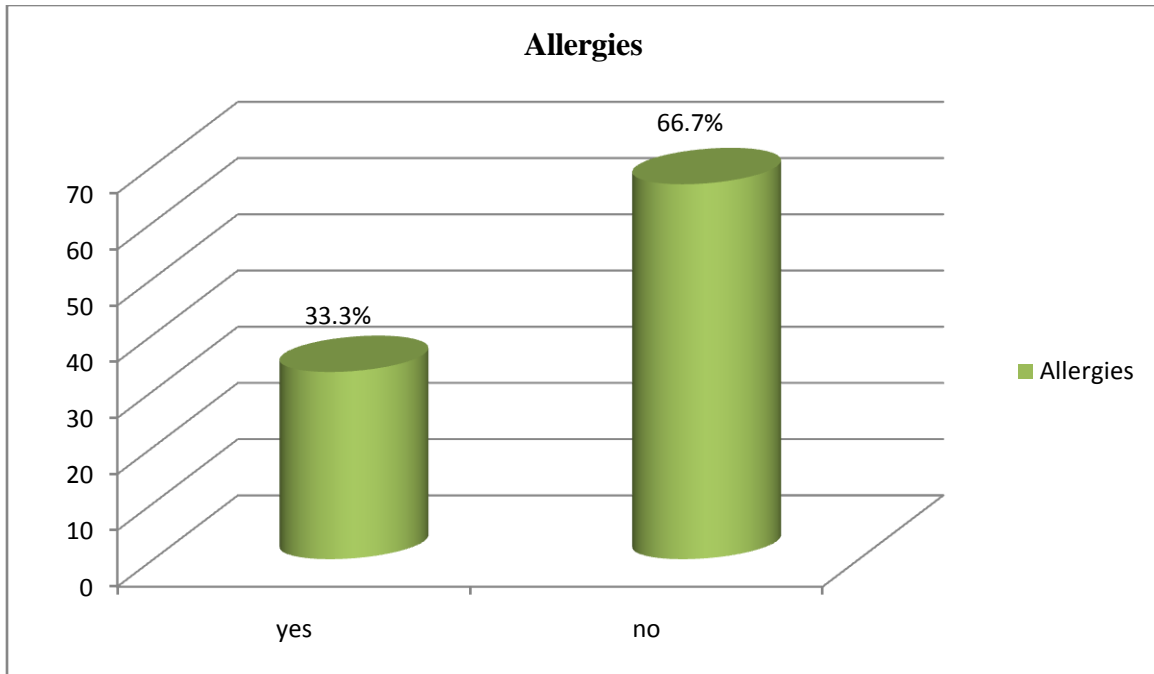


Figure 11: Allergies among the children

Family and Developmental History:

Figure 12 represents that there a high rate of substance abuse/ use occur among them. And family crisis is the most common among participants family and it is the one of the main reason to create psychological problem among the children.

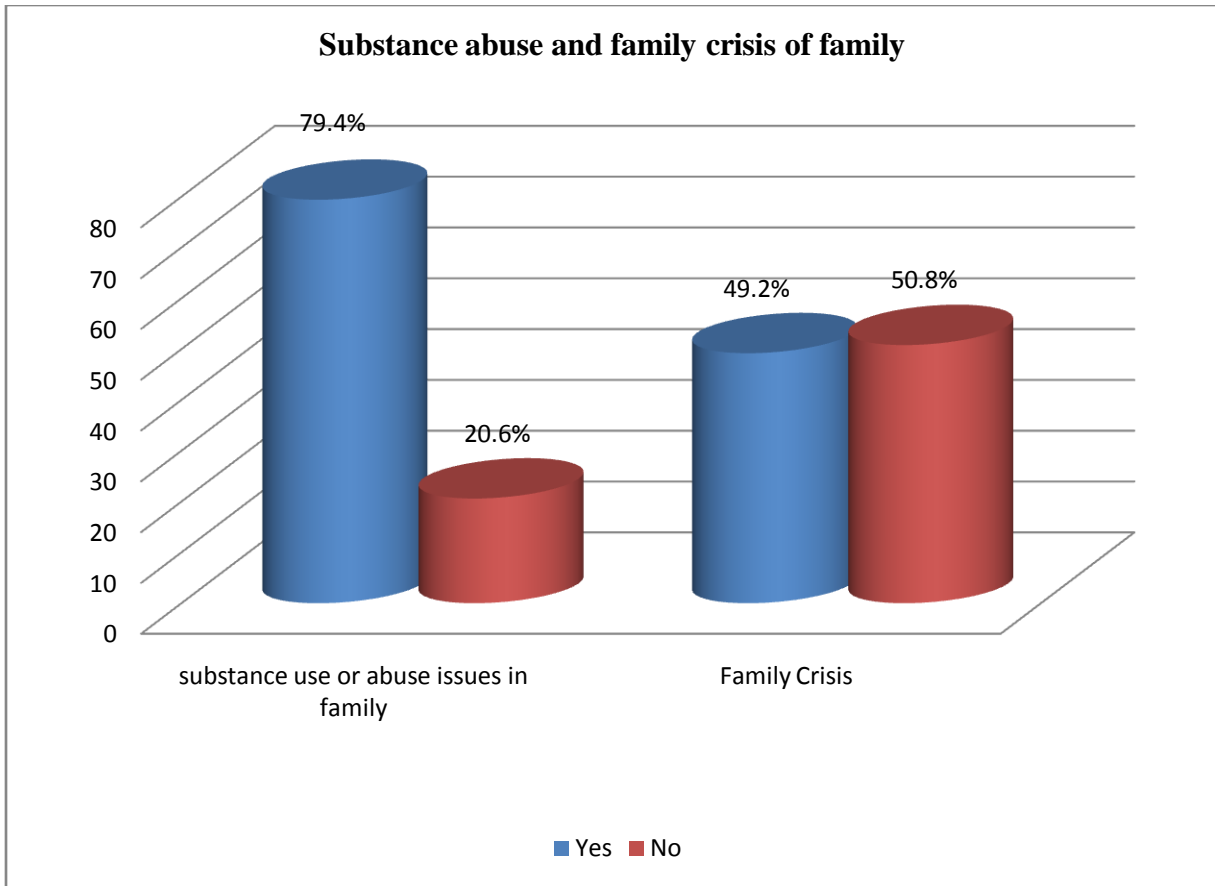


Figure 12: substance abuse and family crisis of family

In family history 23.8% participants told that they have been homeless in their life and very few have mental illness history in their family 25.4%. 54% participants has been away from parent for an extended period and there 54% has family stress or family conflict. As the working children are working out of their house or away from their house they have experienced so many traumas in their life and almost 41.3% experienced it.

Question	Yes	No
Has the child ever been homeless?	23.8%	76.2%
Is there any family history of mental illness?	25.4%	74.6%
Has the child been away from parent for an extended period?	54%	46%
Has there been family stress or family conflict?	54%	46%
Has the child experienced trauma?	41.3%	58.7%

Table 4: Family and Developmental History of the children

School history:

Most of the participant couldn't remember their exact age when they started their school life but they told that most of them get admitted school in class 1 and they stopped their study after class 2 because of their poor family income. They had to engage in work to help their family.

In School history most of the participant's grades is 38.1% in B, 31.7% in C, 22.2% in A and very less 7.9% participants get A+. It's because as a working child they don't have enough time, enough facility, and enough guidance for study and cannot come school regularly. They don't have proper guidance as result their result may become poor.

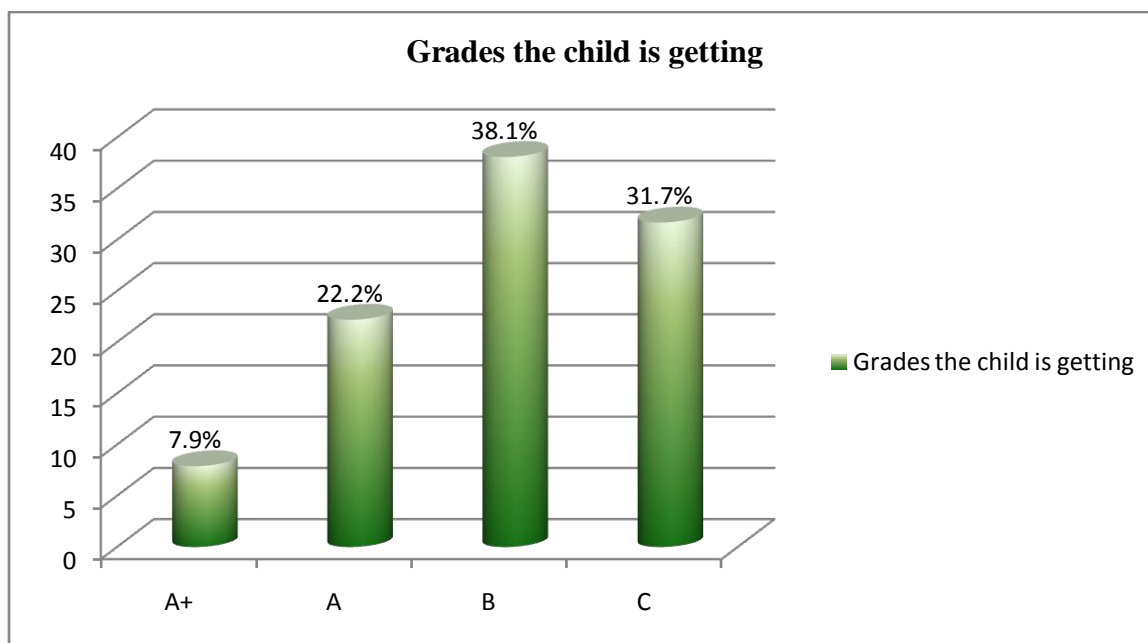


Figure 13: Grades the child is getting in school

In the study they have faced so many problems to continue their study. But some subject makes them scared which is very important to know. In this study we have found that most of the participants have problem with English 47.6%. In math 28.6%, 11.1% in Bangla and 1.6% in others. But there also 11.1% participants told they have no problem with any subject.

To solve this type of problem teacher can study these subjects in a different way for example by making a pyramid teacher can easily learn child mathematic solution etc.

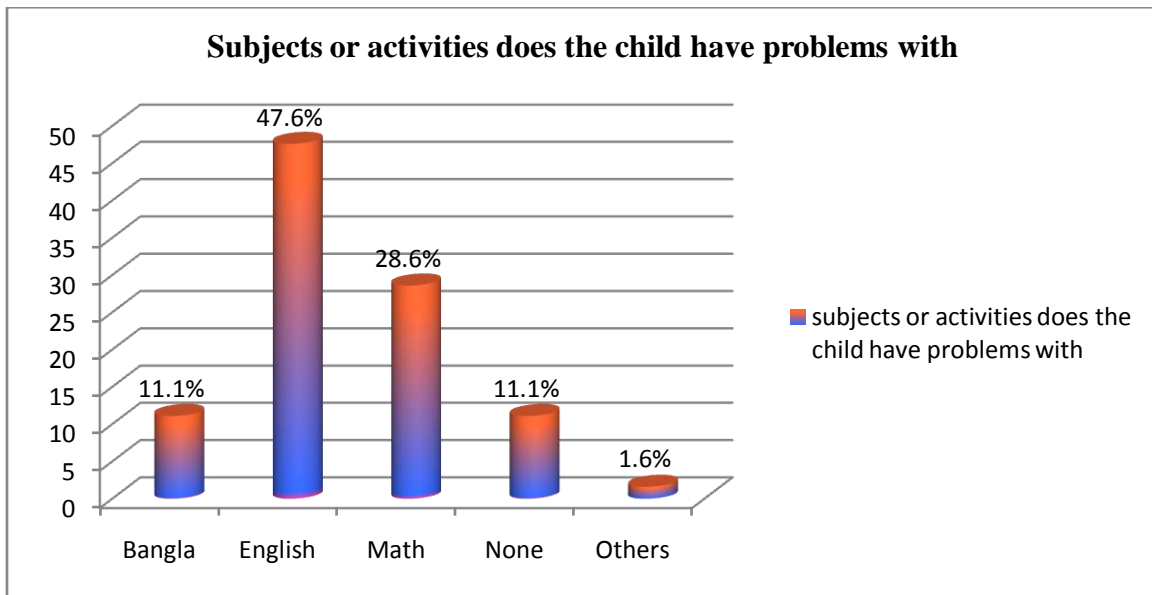


Figure 14: Child problem with those subjects

Relationship with others:

Most of the participants have good relation with teacher and peer. But there are also some participants those have poor relation with their teacher and peer because of their misbehavior. Among them 22.2% have poor relation with their teacher and 23.2% have poor relation with their peers which make them isolated. As they are working child they don't have lots of love, time, and care from a loving ones in this case if they become isolated from teacher or peer it makes bad thing in their mind and they can go to the wrong way in their life. Moreover they are living away from their family so day by day they have lost the bond of family and it may develop a poor relation with their family. Here 49.2% poor relation with their parents and 34.9% have poor relation with siblings.

Relation	Good	Poor
The child's relationship to both parents	50.8%	49.2%
The child's relationship to siblings	65.1%	34.9%
The child's relationship to his or her teachers	77.8%	22.2%
The child's relationship to his or her friends or peers in school	76.2%	23.8%

Table 5: Relationship with others of the children

Behavioral Observations and Mental Status during Assessment:

This is just an observational part of this study. Here the researcher included this point as behavior shows us to know about a client. When they were in interview 28.6% participant's general appearance was very poor and 28.6% participant's general appearance was unkept. General appearance is highly related with physical and mental problem. The child whose general appearance is very poor may suffered by disease related to hygiene. On the other hand it is a cognitive skill for physical presentation. According to their age 25.4% participants size was small for age/ethnicity. Among the participant's 50.8% was cooperative where 33.3% was uncooperative and 15.9% were very angry. These are measured as we know that social conduct is a part of psychosocial component. As most of the participants age within 6-14, usually in this stage children activity level can be alert but in this study we have seen that 42.9% was slowed and 15.9% agitated. And there speech was 50% was fluent, 42.9% was slowed and 3.2 % broken.

Discussion:

The current study examined the prevalence and presentation of psychosocial status or indicators in pediatric working clients. Psychosocial morbidity plays a significant role in pediatric health care specially who are from low income, lower educated family. While the majority of children with health conditions continue to function well, a subset of patients across conditions develop psychosocial co morbidity. This is particularly important because untreated or unrecognized mental illness can negatively impact treatment outcomes on the other hand it hampers their personal life(Hommel et al.2010). A study in the UK report that, children and mothers who have suffered domestic or neighborhood violence constitute a high risk group of mental or psychosocial health (Vostanis et al. 2001).The present report also finds that the children are

suffered by domestic violence although they were very much afraid to flash it to others. As the report was written upon the working children most of them are come from low income families and have problem of having food properly. This also can be cause of psychological problem which is support by the study of USA suggesting that intermittent experiences of food insufficiency and hunger are associated with poor behavioral and academic functioning in low-income children (Murphy et al. 1998).

By this study it is known that from the total participants, 54% participants told they have family stress or family conflict which is a very painful experience for them.41.3% told they had experienced trauma in their life due to physical abuse, torture, fear etc.

Recommendation:

- Mental health interventions for victims of domestic and neighborhood violence should be integrated with community programs of social reintegration.
- On the other hand the developing psychological problem can be control by the early stage by supporting the child and assessing him/ her in a follow up basis intervention. Appropriate professionals like occupational therapist, psychiatrist, social worker and others can help to the government or non-government organizations who are working with this sector.
- There should be a good relation with the teacher and students and for this the teachers can follow different way of rapport building.
- Different and interesting way (like telling story, drama, elastration etc) should be chose to aware the client about the physical abuse, substance abuse, general knowledge, assertiveness etc.

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