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Non-compliance with Outpatient Follow-up in Child Abuse Cases - A Single Centre Study

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ABSTRACT

Introduction: To study the characteristics of child abuse cases and determine the risk factors associated with non-compliance to follow-up. **Methods:** A retrospective review of Suspected Child Abuse and Neglect (SCAN) cases attending an outpatient clinic at Hospital Universiti Sains Malaysia was performed. This was done using a standardized proforma to capture the demographic and clinical data from 2014 until 2020. Variables collected were gender, age at the time of the abuse, religion, education, school attendance, history of previous abuse, parental employment, parental relationship, domestic violence, parental criminal history, substance abuse, and household number. Children under the age of 18 years who were seen by the SCAN team in the emergency department (ED) or during hospital admission within the time frame were included. **Results:** Compliance rates are defined as the follow-up within the first recommended date given after hospital admission or encounter at the ED. The investigation comprised 311 cases and sexual abuse was reported in 261 cases (83.9%). During the study period, 191 (61.3%) children who were non-compliant with follow-up. Simple binary logistic regression revealed that the significant factors associated with non-compliance to follow-up after the SCAN team review was the patients' age only. Multiple logistic regression revealed that there were no significant factors associated with failure to comply with outpatient clinic follow-up. **Conclusion:** This study provides a descriptive study of local child abuse cases. We could not identify any specific factors associated with non-compliance to follow-up.

KEYWORDS: child abuse, noncompliance, follow-up, paediatrics

INTRODUCTION

Child abuse and neglect are a widespread global problem that has a major impact on children's health and safety around the world. Despite the availability of numerous national surveys on child abuse, data from many countries, including Malaysia, remains insufficient. Under the Child Act 2001, child abuse is defined as "any potential risk of a child being physically, sexually, emotionally injured or neglected in terms of adequate care, supervision and safety" [1]. According to WHO child maltreatment data, nearly 300 million or 3 in 4 children aged between 2-4 years regularly suffer some form of physical punishment and/or psychological violence at the hands of parents/caregivers [2]. It also documented that 1 in 5 women and 1 in 13 men are reported as being sexually abused during their childhood throughout the age of 0-17 years [2].

The Suspected Child Abuse and Neglect (SCAN) team was established in Malaysia to safeguard children from abuse and neglect. The service is structured in the state hospital as a multidisciplinary team that manages and acts as a support service or programme for children, their families, and hospital workers [3]. Hospital members of the SCAN team are typically identified by the hospital and are qualified to assess and treat children.

Malaysian hospitals have uncovered numerous cases of child abuse and neglect, but these issues have often been neglected by healthcare providers, and the

health policymaker's community, due to their sensitive nature and factors of social taboo [3]. The first SCAN team was set up in 1985 at the Kuala Lumpur General Hospital [4]. This SCAN team was the only organization dealing with child violence in Malaysia, and it used its advocacy position to petition the Malaysian government for reforms on child safety. The SCAN team together with other agencies worked in tandem to prepare the 'Child Protection Act 1991' which received recognition from the United Nations for protecting the lives of children [5]. The latest version of this act is the Child Act 2017, which provides provisions to protect abused children or children in need of care and protection.

The SCAN team at Hospital Universiti Sains Malaysia (HUSM) was established around August 1997 [6]. It is a multidisciplinary team comprising multiple departments working collaboratively, including Paediatric, Obstetrics and Gynaecology, Psychiatry, Emergency Department, Paediatric Surgery, and Social Welfare. The One Stop Crisis Centre (OSCC) is a 24-hour 'one stop crisis centre' which is generally located in the Emergency Department (ED) and serves as an entry point for all child abuse cases referred or sent to the hospital. It provides a private area for the child and their family to be interviewed by healthcare workers, welfare officers or the police, and for the initiation of medical examination by doctors. Since then, there have been improvements in the detection and referral of SCAN cases to the ED. The trend of reported cases has been increasing as the awareness of child abuse has spread to the community [7].

According to a Bukit Aman report, there were 12,171 SCAN cases among children between the years of 2018 and 2020 [7]. This includes incidence of sexual abuse such as statutory rape, molestation, incest, sodomy, and pornography, as well as cases of physical abuse, emotional abuse, missing children, and abandoned babies. Based on reported studies, females were more likely to be victims in cases of sexual abuse [7]. Both sexes have nearly the same number of incidences of physical abuse. There has been a total of 112 deaths among physically abused children in Malaysia between the years 2018 and 2020. Children between one to seven years old are more likely to be physically abused than children aged less than one year, and those over the age of seven [7].

Child abuse encompasses all types of abuse and exploitation, resulting in harm to the health, growth, or dignity of the child. There are four main forms of child abuse which are physical violence, sexual abuse, emotional or mental abuse, and neglect. All clinical staffs have the obligation to safeguard children from potential physical or emotional injury [8]. Physical abuse is defined as an act of commission by a caregiver that causes actual physical harm or have the potential for harm [8], whereas sexual abuse is an act in which a caregiver or an adult in position of power and trust uses a child for sexual gratification [8]. Physical neglect is the failure of a parent to provide for the development of the child in one or more of the following areas: health, education, emotional development, nutrition, shelter, and safe living conditions [8]. On the other hand, emotional neglect is a pattern of behaviour that impairs a child's emotional development or sense of self-worth. This may include constant criticisms, threats, or rejection as well as withholding love, support, or guidance [8].

The purpose of this study is to explore the characteristics of child abuse cases, and determine the factors associated with patients' non-compliance to outpatient clinic follow-up.

MATERIALS AND METHODS

A retrospective review of medical records was conducted at Hospital USM, Kubang Kerian on all child abuse cases seen by the SCAN team in the outpatient clinic from January 2014 to December 2020. Hospital USM is a 723-bedded tertiary centre located in Kota Bharu, the capital of Kelantan. Kelantan is a state along the north-eastern coast of Peninsular Malaysia facing the South China Sea with a population of 1.3 million. The state covers a land area of 14,922 km^2 and is populated mainly by the Malay ethnic group.

All cases that met the following inclusion criteria were included: children less than 18 years old managed by the SCAN team, discharged from ED or the ward following clinical assessment and review, and who was given an outpatient clinic follow-up appointment for a specific date and time upon hospital discharge. Exclusion criteria were cases documented without any available case notes. The data was extracted from Hospital USM OSCC census database. A total of

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392 cases were identified. However, only 311 case notes could be traced for the purpose of the study. The remaining 81 case notes were untraceable from the record office, and mostly were the records from the year 2014-2015.

We utilized a study proforma to collect information on demographics, types of abuse and risk factors that lead to non-compliance to outpatient clinic follow-up. Following the first consultation and review by the SCAN team, each patient was be given an appointment date for outpatient follow-up. Compliance to follow-up was defined as the first spontaneous return to the clinic within the time interval suggested without receiving a reminder call or letter [9]. The information documented included the types of abuse, history of school attendance, the presence of medical co-morbidities, number of household members, parental relationship, total income, and location of the family accommodation, whether in the urban or rural setting. Data on the patients' status was collected using the social economic group classification in accordance with the published definition from the Malaysian standard [1, 4]. The household income is divided based on the median household income such as T20 (income exceeds RM10,971/month), M40 (income between RM4,851 to RM10,970/month) and B40 (income less than RM 4,850). Separated parental relationship is defined as breakdown in partnership between parents regardless of marital status [10].

Data was analysed using Microsoft Excel Spreadsheet (Microsoft Excel 2000, Microsoft Corporation, Redmond, WA) and IBM Statistical Package for Social Sciences (SPSS Inc., Chicago, IL) software version 27.0. Sociodemographic information was tabulated for descriptive statistics. Categorical variables are presented as frequency (n) and percentage (%), while numerical variables are presented as mean and standard deviation (SD). Continuous and ranked variables are reported as mean and standard error (SEM). A significance level of alpha =0.05 was used throughout all analyses. Simple and multiple binary logistic regressions were used to analyse the factors associated with non-compliance to follow up. The variables with p-value <0.25 and clinically significant variables from the univariate analysis were included for multivariate analysis.

Ethical considerations

Ethical approval was obtained from the Human Research Ethics Committee Universiti Sains Malaysia (USM/JEPeM/20040240) prior to data collection.

RESULTS

There were 311 patients enrolled for the study; with the majority being girls (n=278) and the remaining 33 were boys. The highest number of child abuse cases was in the age group of 14-18 years old, with a total of 191 (61.3%) cases. Most were sexual abuse and statutory rape cases. Muslims made up an overwhelming majority of patients (99.4%, n=309). The mean age group was 11.8 years old (SD 5.0), and those in the secondary school accounted for 198 (63.7%) children. Around 39.9% of patients were chronically absent or non-school attendees. Patients in our cohort did not have any serious comorbidities (91.3%). The documented co-morbidities or chronic illnesses were bronchial asthma, learning difficulties, congenital heart disease, type I diabetes mellitus, Attention Deficit Hyperactive Disorder (ADHD), Grave's disease, Down Syndrome and global development delay with hemiplegia and these were seen in 8.7% of the cases. The baseline characteristics of patients are presented in Table 1.

The bulk of patients were from Kelantan (63.7%), and approximately one third (35%) of the patients came from rural Terengganu, such as Besut, Marang and Setiu. This is primarily due to their proximity to the Hospital USM compared to their state tertiary hospital. Patients were mostly comprised of secondary school teenagers and college graduates (42% and 44% respectively). Fathers were mostly employed (82.9%) while nearly half of the mothers were housewives (44.8%). Parents in almost a third of the households were separated and parental unemployment ranged from 14.5% to 39.9%. According to the data, family households with more than five people residing together were present in 55.1% of the cases (Table 1).

Sexual abuse was the type of abuse reported in 83.9% (n=261) of the cases, followed by physical abuse cases (Table 2). Nearly half (48.2%) of the children were admitted to hospital, while the rest were safely discharged to their parents or guardians on the day of presentation. The majority of these child abuse cases

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(n=309, 99.4%) were still alive when they were discharged. Two deaths (0.6%) were reported, both from the impact of physical abuse. There were 190 patients (61.1 %) who did not comply with the follow-up instructions. Out of this total, 25 and 165 of them experienced physical abuse and sexual abuse respectively.

Simple logistic regression revealed that only age is significantly associated with non- compliance to follow up ($p<0.05$). There are no significant factors found to be associated with non-compliance to follow-up in this study following regression analysis (Table 3).

Table 1 Sociodemographic data of the participants

Characteristics	n (%)
Gender	
Male	33 (10.6)
Female	278 (89.4)
Age	
1 month old - 1-year-old	13 (4.2)
2-year-old - 5-year-old	35 (11.3)
6-year-old - 13-year-old	72 (23.2)
14-year-old - 18-year-old	191 (61.3)
Religion	
Muslim	309 (99.4)
Buddha	2 (0.6)
Education level	
Never have formal education	62 (19.9)
Primary school	47 (15.1)
Secondary school	198(63.8)
College	2 (0.6)
Missing data	2 (0.6)
Regular school attendance	
Yes	187 (60.1)
No	119 (38.3)
Missing data	5 (1.6)
Comorbidities*	
Present	27 (8.7)
Absent	284 (91.3)
History of previous abuse	
Yes	20 (6.4)
No	285 (91.7)
Missing data	6 (1.9)
Address	
Rural Kelantan	112 (36.0)
Urban Kelantan	86 (27.7)
Rural Terengganu	109 (35.0)
Outside Kelantan and Terengganu	3 (1.0)
Missing data	1 (0.3)

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Father's employment status	
Employed	218 (70.1)
Unemployed	45 (14.5)
Missing data	48 (15.4)
Mother's employment status	
Employed	153 (49.2)
Unemployed	124 (39.9)
Missing data	34 (10.9)
Parents relationship	
Not separated	182 (58.5)
Separated	117 (37.6)
Missing data	12 (3.9)
Domestic violence in the family	
Yes	9 (2.9)
No	283 (91.0)
Missing data	19 (6.1)
Parents' past criminal record	
Yes	11 (3.6)
No	294 (94.5)
Missing data	6 (1.9)
Substance abuse among the family members	
Yes	22 (7.1)
No	279 (89.7)
Missing data	10 (3.2)
Size of the family household	
1-5 persons	131 (42.1)
more than 5 persons	161 (51.8)
Missing data	19 (6.1)

Table 2 Characteristics of child abuse

Characteristics	**n (%)**
Types of abuse	
Physical abuse	50 (16.1)
Sexual abuse	261 (83.9)
Admission	
Yes	150 (48.2)
No	161 (51.8)
Outcome	
Alive	309 (99.4)
Dead	2 (0.6)
Compliance	
Yes	121 (38.9)
Physical Abuse	25 (20.7)
Sexual Abuse	96 (79.3)
No	190 (61.1)
Physical Abuse	25 (13.2)
Sexual Abuse	165 (86.8)

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Table 3 Factors associated with non-compliance to follow up

Variables		Crude Odds Ratio (95% CI)	Wald Stat	P Value	Adjusted Odds Ratio	95% Confidence Interval	P Value
Gender	Male	1.0					
	Female	1.35(0.65-2.80)	0.662	0.416	NA	NA	NA
Age	1month -13 y	**1.0**					
	14y – 18 y	**1.60(1.01-2.56)**	**3.92**	**0.048**	0.49	0.17-1.39	0.180
Types of abuse	Physical	**1.0**					
	Sexual	**1.72 (0.94-3.16)**	**3.040**	**0.081**	0.62	0.29-1.30	0.204
Educational level of the participants	No formal education	**1.0**					
	Have formal education	**1.37(0.85-2.20)**	**1.677**	**0.195**	1.50	0.52-4.35	0.458
School attendance	Yes	1.0					
	No	1.17(0.73-1.87)	0.52	0.410	NA	NA	NA
Comorbidities:	Present	1.0					
	Absent	1.48(0.67-3.28)	0.95	0.330	NA	NA	NA
History of previous recorded abuse	Yes	1.0					
	No	1.59(0.64-3.95)	1.00	0.320	NA	NA	NA
Parents' relationship	Not separated	1.0					
	Separated	0.99(0.61-1.59)	0.003	0.960	NA	NA	NA
Domestic violence among parents	Yes	**1.0**					
	No	**1.26(0.33-4.79)**	**0.113**	**0.740**	1.34	0.29-6.18	0.711
Parental past criminal record	Yes	1.0					
	No	1.30(0.39-4.35)	0.178	0.670	NA	NA	NA

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Substance abuse among family members	Yes	**1.0**					
	No	**1.56(0.65-3.72)**	**1.003**	**0.320**	1.05	0.35-3.22	0.930
Size of the family household	1-5	1.0					
	>5	0.92(0.57-1.47)	0.128	0.720	NA	NA	NA
Address	Rural Kelantan	**1.0**					
	Urban Kelantan	**1.24(0.69-2.21)**	**0.516**	**0.472**	1.75	0.10-29.50	0.698
	Rural Terengganu	**1.11(0.65-1.91)**	**0.149**	**0.700**	2.30	0.14-39.31	0.565
	Other states	**1.39(0.12-15.83)**	**0.072**	**0.789**	1.84	0.11-30.86	0.673

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DISCUSSION

The annual incidence of child abuse and neglect is approximately 700,000 to 1.25 million children in the United States, around 107,200 to 160,000 children in Netherlands, and 12,500 to 20,300 children in Taiwan [8]. In Malaysia, the total cases of child abuse and neglect reported to the Department of Social Welfare is approximately 1000 -3257 children from the year 2000-2010 [7]. There are 392 cases recorded from the year 2014 up to the year 2020 at our centre alone. We could see an upward trend annually. It is believed that these cases are underreported due to various factors, particularly in the context of sexual abuse and due to socio-cultural taboo around the disclosure of abuse [5]. According to Kamaruddin et al, there are several barriers to reporting the cases of sexual abuse including societal discrimination against sexually abused victims, cultural taboos in relation to 'cultural embarrassment' and lack of specialized 'one stop' centres [11].

During the study period, only two main types of abuse were reported, namely physical and sexual abuse. Sexual abuse accounted for 83.9% of the incidents, with physical abuse accounting for the remainder. In Amsterdam, physical abuse, physical neglect, and sexual abuse are the predominating type of abuse [12]. Hospital-based studies in Austria, Switzerland and Japan have documented physical abuse and sexual abuse as the most common types reported, followed by either neglect or emotional abuse [12]. In our study, it is most likely that cases of physical neglect or emotional abuse are underreported. It is also possible that there are overlapping findings such as sexual abuse and emotional abuse that may co-exist, but without the identification of emotional abuse. Neglect may be difficult to identify due to lack of physical injury, insufficient evidence, and subtleness or uncertainty of what is meant by the term neglect. Early recognition, detection, and identification of neglect, on the other hand, is critical and should be clearly explained and informed to the family and caregivers so they may improve their abilities to care for their children and prevent further abuse or neglect [8].

There were about 48.2% of patients who required admission to the ward in our cohort. These were situations in which an immediate patient discharge was deemed as dangerous due to the presence of the perpetrator at home, especially in the case of physical or sexual abuse. Risk factors included abusive family members, perpetrators who were not yet in police custody, and medical or surgical injuries that required further treatment in the ward. There were two mortalities, and both were due to abusive head trauma. Head injury is the leading cause of death in abused children under 2 years of age [5]. If children under 2 years of age presented to the ED with severe injuries, brain imaging should be considered to rule out brain damage caused by the abuse. This is important for early identification based on history, clinical examination, and suspicion of non-accidental injury.

There are relatively few studies on child abuse prevalence in Malaysia. A research on follow-up compliance is essential due to several reasons. Follow-up appointments would assure the continuity of the children's well-being and would also allow them to explore their coping strategies in daily life. Children who experience maltreatment are at risk of developing difficulties with self-regulation across many domains. Maltreated children often exhibit deficits in issues related to self-regulation, compliance as well as challenging behaviour, which can lead to other negative outcomes including problems with anger management and self-control [5]. From our study, patients who experienced sexual abuse made up the majority of those who were non-compliant to follow-up. Careful examination of the data shows that there are statutory rape cases locally which involve teenage Muslim girls (mean age = 15.5) who are still attending secondary school. According to Cheah IG et al., premarital sex and pregnancy outside wedlock are largely socially unacceptable in Malaysia and may be kept hidden from others [5]. Many parents reported premarital sex in their children as rape because their teenagers initially report the sexual act as being against their will out of fear of their parents' anger. It should be highlighted that any sexual intercourse with a female under the age of 16 years is automatically considered as statutory rape. The mean age of premarital sexual activity was found to be around 15 years old.

There were multiple factors associated with non-compliance to follow up such as the types of abuse, the parental educational level, any previous experience with domestic violence, presence of substance abuse in

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the family, a broken family structure and distance from the hospital. In this study, we were unable to identify any specific factors that were associated with concerns of non-compliance. Irwin Jr et al. reported that lower social class, psychosocial problems within the family or a broken family and long-distance traveling to hospital may contribute to non-compliance with follow-up [13]. Finally, we could not elicit any specific factors associated with non-compliance to outpatient clinic follow-up at Hospital USM. To the best of our knowledge, there is limited information available on this matter at this stage. There may be additional demographic or clinical variables linked with non-compliance to follow-up, but a larger sample size may be required to demonstrate their significant association.

This study has a few limitations. Since this is a retrospective study, only a small amount of data was gathered. It was a challenge getting the information from the case notes as there were untraceable folders in 20% of the study samples, and even when the case notes were available, there was often important information missing. We acknowledge the difficulty in extracting the data from the case notes. If the variables were insufficient for analysis, the missing data were dropped. If the number of missing data were large, the authors opted to document these as 'missing data' in each variable. The study was conducted at a single tertiary hospital in Kelantan, where the majority of the population was of Malay ethnicity, thereby limiting the generalizability of the study's findings. Physical abuse, sexual abuse, neglect, and emotional abuse are the four categories of child abuse. However, emotional abuse was rarely reported and thus difficult to detect in this population due to atypical manifestations, poor recognition, and social taboos There is a strong possibility that co-existing abuse, such as both sexual and emotional abuse being present, are not appropriately captured by our doctors. Variable clinical assessments by the clinicians, as well as differences in awareness, comprehension, and interpretation of child neglect recognition, may exist, and some cases of neglect may also have been missed due to the retrospective nature.

CONCLUSION

This study provides a description of the types of abuse seen in a state hospital in Malaysia, with the determination of how sociodemographic and risk factors might be associated with non-compliance to clinic follow-up. Although there is no statistically significant risk factor identified with compliance to follow-up, future prospective studies may help to address the important issue of non-compliance.

Conflict of interest

Authors declare none.

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Authors' Contribution

Conception or design of work: Fahisham Taib

Data collection: Rabihah Abdul Halim

Data analysis and interpretation: Rabihah Abdul Halim, Azriani Abdul Rahman

Drafting the article: Rabihah Abdul Halim, Fahisham Taib

Writing the article: Rabihah Abdul Halim, Fahisham Taib

Final version of the article to be published: All authors

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